










## abia AFP

Version number: 1.0

Date of compilation: 24.08.2017

### Kit contents

| Name of substance                            | Identifier                                  | Hazard class and category             | Hazard statement | Pictograms  |
|--|---|---------------------------------------|------------------|---|
| abia AFP AFP Ab coated plate                 | Internal code<br>MP.045.02.3                |                                       |                  |   |
| abia AFP Conjugate                           | Internal code<br>CJ.045.12.3                | 3.4S Skin Sens. 1                     | H317             |    |
| abia AFP Calibrator 0                        | Internal code<br>C0.045.20.3                | 3.4S Skin Sens. 1                     | H317             |    |
| abia AFP Calibrator 1                        | Internal code<br>C1.045.05.3                | 3.4S Skin Sens. 1                     | H317             |    |
| abia AFP Calibrator 2                        | Internal code<br>C2.045.05.3                | 3.4S Skin Sens. 1                     | H317             |   |
| abia AFP Calibrator 3                        | Internal code<br>C3.045.05.3                | 3.4S Skin Sens. 1                     | H317             |  |
| abia AFP Calibrator 4                        | Internal code<br>C4.045.05.3                | 3.4S Skin Sens. 1                     | H317             |  |
| abia AFP Calibrator 5                        | Internal code<br>C5.045.05.3                | 3.4S Skin Sens. 1                     | H317             |  |
| abia AFP Control serum                       | Internal code<br>CS.045.05.3                | 3.4S Skin Sens. 1                     | H317             |  |
| abia Washing solution (concentrated 25-fold) | Internal code<br>WS.001.50.3<br>WS.001.12.3 |                                       |                  |   |
| abia TMB/substrate solution                  | Internal code<br>SM.001.12.3                |                                       |                  |   |
| abia Stopping reagent 0.2M                   | Internal code<br>SR.020.25.3<br>SR.020.90.3 | 3.2 Skin Irrit. 2<br>3.3 Eye Irrit. 2 | H315<br>H319     |  |

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP AFP Ab coated plate  
Reference number(s) MP.045.02.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
Sportfliegerstraße 4  
DE-12487 Berlin  
Germany

Telephone: +49 (0) 30 208 987 160  
Telefax: +49 (0) 30 208 987 199  
e-mail: info@ab-ds.de  
Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)  
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)  
not required

#### 2.3 Other hazards

Results of PBT and vPvB assessment  
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

These information are not available.

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

##### Other safety parameters

|   |                      |
|---|----------------------|
| pH (value)                              | not determined       |
| Melting point/freezing point            | not determined       |
| Initial boiling point and boiling range | not determined       |
| Flash point                             | not determined       |
| Evaporation rate                        | not determined       |
| Flammability (solid, gas)               | not relevant (fluid) |
| Explosive limits                        | not determined       |
| Vapour pressure                         | not determined       |

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|                  |   |
|------------------|---|
| Density          | not determined                                |
| Vapour density   | this information is not available             |
| Relative density | information on this property is not available |

### Solubility(ies)

|                    |                            |
|--------------------|----------------------------|
| - Water solubility | miscible in any proportion |
|--------------------|----------------------------|

### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

## 9.2 Other information

|                 |     |
|-----------------|-----|
| Solvent content | 0 % |
| Solid content   | 0 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

##### Acute toxicity

Shall not be classified as acutely toxic.

##### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

##### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### SECTION 12: Ecological information

#### 12.1 Toxicity

No data available.

#### 12.2 Persistence and degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

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### 12.6 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

### 14.1 UN number

### 14.2 UN proper shipping name

not relevant

### 14.3 Transport hazard class(es)

none

### 14.4 Packing group

not relevant

### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Relevant provisions of the European Union (EU)

##### Deco-Paint Directive (2004/42/EC)

|             |     |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

##### Directive on industrial emissions (VOCs, 2010/75/EU)

|             |     |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.



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### SECTION 16: Other information

#### Abbreviations and acronyms

| Abbr.    | Descriptions of used abbreviations  |
|----------|---|
| ADN      | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR      | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CLP      | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR      | Dangerous Goods Regulations (see IATA/DGR)  |
| GHS      | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA     | International Air Transport Association   |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| IMDG     | International Maritime Dangerous Goods Code   |
| MARPOL   | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| PBT      | Persistent, Bioaccumulative and Toxic   |
| REACH    | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID      | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)   |
| VOC      | Volatile Organic Compounds  |
| vPvB     | Very Persistent and very Bioaccumulative  |

#### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Conjugate  
 Reference number(s) CJ.045.12.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.










## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

##### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 90,61 % |
| Solid content   | 8,656 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |



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| Acute toxicity estimate (ATE) of components of the mixture                                      |            |                    |           |
|---|------------|--------------------|-----------|
| Name of substance   | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.  
Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not relevant  |
| <b>14.3 Transport hazard class(es)</b>   | none  |
| <b>14.4 Packing group</b>  | not relevant  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 82,28 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 82,28 % |
|-------------|---------|

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### National regulations (Germany)

#### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Commission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                          |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |
| Flam. Liq.      | Flammable liquid  |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA            | International Air Transport Association   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 0

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Calibrator 0  
 Reference number(s) C0.045.20.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-<br>egory | Hazard class and<br>category | Hazard state-<br>ment |
|---------|--------------------|---------------|------------------------------|-----------------------|
| 3.4S    | skin sensitisation | 1             | Skin Sens. 1                 | H317                  |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.














## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms  |
|---|--|-----|---|---|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |     |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |      |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |    |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |     |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |      |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |   |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

##### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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**- Other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls**

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

**Other safety parameters**

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

**Partition coefficient**

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,39 % |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |

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| Acute toxicity estimate (ATE) of components of the mixture                                      |            |                    |           |
|---|------------|--------------------|-----------|
| Name of substance   | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.  
 Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## abia AFP Calibrator 0

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not relevant  |
| <b>14.3 Transport hazard class(es)</b>   | none  |
| <b>14.4 Packing group</b>  | not relevant  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 98,09 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 98,09 % |
|-------------|---------|

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### National regulations (Germany)

#### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Commission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                          |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |
| Flam. Liq.      | Flammable liquid  |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA            | International Air Transport Association   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).



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### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 1

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Calibrator 1  
Reference number(s) C1.045.05.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
Sportfliegerstraße 4  
DE-12487 Berlin  
Germany

Telephone: +49 (0) 30 208 987 160  
Telefax: +49 (0) 30 208 987 199  
e-mail: info@ab-ds.de  
Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P321 Specific treatment (see on this label).  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.












## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |    |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

##### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,4 %  |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |



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| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                    |           |
|--|------------|--------------------|-----------|
| Name of substance  | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## abia AFP Calibrator 1

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not relevant  |
| <b>14.3 Transport hazard class(es)</b>   | none  |
| <b>14.4 Packing group</b>  | not relevant  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |        |
|-------------|--------|
| VOC content | 98,1 % |
|-------------|--------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |        |
|-------------|--------|
| VOC content | 98,1 % |
|-------------|--------|

## abia AFP Calibrator 1

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### National regulations (Germany)

#### Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV)

 Water hazard class - WHC                      2 obviously hazardous to water - classification acc. to annex 1 (AwSV)  
 (Wassergefährdungsklasse)

### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK)                              10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                           |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |

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Version number: GHS 1.0

Date of compilation: 24.08.2017

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

## abia AFP Calibrator 1

Version number: GHS 1.0

Date of compilation: 24.08.2017

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 2

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Calibrator 2  
 Reference number(s) C2.045.05.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Category | Hazard class and category | Hazard statement |
|---------|--------------------|----------|---------------------------|------------------|
| 3.4S    | skin sensitisation | 1        | Skin Sens. 1              | H317             |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container to industrial combustion plant.

## abia AFP Calibrator 2

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.













## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms  |
|---|--|-----|---|---|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |     |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |     |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |    |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |     |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |      |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |   |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

## abia AFP Calibrator 2

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

##### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,4 %  |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |

## abia AFP Calibrator 2

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Date of compilation: 24.08.2017

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                    |           |
|--|------------|--------------------|-----------|
| Name of substance  | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## abia AFP Calibrator 2

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |             |   |   |
|-------------|---|---|
| <b>14.1</b> | <b>UN number</b>  | not subject to transport regulations                                  |
| <b>14.2</b> | <b>UN proper shipping name</b>  | not relevant  |
| <b>14.3</b> | <b>Transport hazard class(es)</b>   | none  |
| <b>14.4</b> | <b>Packing group</b>  | not relevant  |
| <b>14.5</b> | <b>Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6</b> | <b>Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7</b> | <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

#### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

#### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |        |
|-------------|--------|
| VOC content | 98,1 % |
|-------------|--------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |        |
|-------------|--------|
| VOC content | 98,1 % |
|-------------|--------|

## abia AFP Calibrator 2

Version number: GHS 1.0

Date of compilation: 24.08.2017

### National regulations (Germany)

#### Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV)

 Water hazard class - WHC                      2 obviously hazardous to water - classification acc. to annex 1 (AwSV)  
 (Wassergefährdungsklasse)

### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK)                              10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                           |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.



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Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 3

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Calibrator 3  
 Reference number(s) C3.045.05.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.












## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |    |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

#### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

#### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,41 % |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |



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| Acute toxicity estimate (ATE) of components of the mixture                                      |            |                    |           |
|---|------------|--------------------|-----------|
| Name of substance   | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.  
Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- 14.1 UN number** not subject to transport regulations
- 14.2 UN proper shipping name** not relevant
- 14.3 Transport hazard class(es)** none
- 14.4 Packing group** not relevant
- 14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user**  
There is no additional information.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**  
The cargo is not intended to be carried in bulk.

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 98,11 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 98,11 % |
|-------------|---------|

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### National regulations (Germany)

#### Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV)

 Water hazard class - WHC                      2 obviously hazardous to water - classification acc. to annex 1 (AwSV)  
 (Wassergefährdungsklasse)

### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK)                              10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
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| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

## abia AFP Calibrator 3

Version number: GHS 1.0

Date of compilation: 24.08.2017

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 4

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Calibrator 4  
Reference number(s) C4.045.05.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
Sportfliegerstraße 4  
DE-12487 Berlin  
Germany

Telephone: +49 (0) 30 208 987 160  
Telefax: +49 (0) 30 208 987 199  
e-mail: info@ab-ds.de  
Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P321 Specific treatment (see on this label).  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.












## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |    |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

#### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

#### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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**- Other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls**

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

**Other safety parameters**

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

**Partition coefficient**

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,44 % |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |

## abia AFP Calibrator 4

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| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                    |           |
|--|------------|--------------------|-----------|
| Name of substance  | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## abia AFP Calibrator 4

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not relevant  |
| <b>14.3 Transport hazard class(es)</b>   | none  |
| <b>14.4 Packing group</b>  | not relevant  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 98,14 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 98,14 % |
|-------------|---------|

## abia AFP Calibrator 4

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### National regulations (Germany)

#### Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV)

 Water hazard class - WHC                      2 obviously hazardous to water - classification acc. to annex 1 (AwSV)  
 (Wassergefährdungsklasse)

### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK)                              10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                           |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.



## abia AFP Calibrator 4

Version number: GHS 1.0

Date of compilation: 24.08.2017

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Calibrator 5

Version number: GHS 1.0

Date of compilation: 24.08.2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name abia AFP Calibrator 5  
Reference number(s) C5.045.05.3

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses General use

**1.3 Details of the supplier of the safety data sheet**

AB Diagnostic Systems GmbH  
Sportfliegerstraße 4  
DE-12487 Berlin  
Germany

Telephone: +49 (0) 30 208 987 160  
Telefax: +49 (0) 30 208 987 199  
e-mail: info@ab-ds.de  
Website: www.ab-ds.de

**1.4 Emergency telephone number**

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P321 Specific treatment (see on this label).  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to industrial combustion plant.

## abia AFP Calibrator 5

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.












## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |    |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## abia AFP Calibrator 5

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

## abia AFP Calibrator 5

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

#### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

#### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,49 % |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |



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| Acute toxicity estimate (ATE) of components of the mixture                                      |            |                    |           |
|---|------------|--------------------|-----------|
| Name of substance   | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

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Date of compilation: 24.08.2017

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |             |   |   |
|-------------|---|---|
| <b>14.1</b> | <b>UN number</b>  | not subject to transport regulations                                  |
| <b>14.2</b> | <b>UN proper shipping name</b>  | not relevant  |
| <b>14.3</b> | <b>Transport hazard class(es)</b>   | none  |
| <b>14.4</b> | <b>Packing group</b>  | not relevant  |
| <b>14.5</b> | <b>Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6</b> | <b>Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7</b> | <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 98,19 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 98,19 % |
|-------------|---------|

## abia AFP Calibrator 5

Version number: GHS 1.0

Date of compilation: 24.08.2017

### National regulations (Germany)

#### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Commission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                          |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |
| Flam. Liq.      | Flammable liquid  |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA            | International Air Transport Association   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## abia AFP Calibrator 5

Version number: GHS 1.0

Date of compilation: 24.08.2017

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia AFP Control serum

Version number: GHS 1.0

Date of compilation: 24.08.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia AFP Control serum  
 Reference number(s) CS.045.05.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|--------------------|-----------|---------------------------|-------------------|
| 3.4S    | skin sensitisation | 1         | Skin Sens. 1              | H317              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container to industrial combustion plant.

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- Hazardous ingredients for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.












## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance   | Identifier   | Wt% | Classification acc. to GHS  | Pictograms   |
|---|--|-----|---|--|
| 99.8% Ethanol   | CAS No<br>64-17-5  | < 1 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319  |    |
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7<br><br>Index No<br>604-001-00-2 | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Muta. 2 / H341<br>STOT RE 2 / H373  |  <br>   |
| Gentamycinsulfat  | CAS No<br>1405-41-0  | < 1 | Resp. Sens. 1 / H334<br>Skin Sens. 1 / H317   |   |
| Naphthol Yellow S   | CAS No<br>846-70-8<br><br>EC No<br>212-690-2                                 | < 1 | Skin Sens. 1 / H317<br>STOT RE 2 / H373   |    |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9<br><br>Index No<br>613-167-00-5                         | < 1 | Acute Tox. 3 / H301<br>Acute Tox. 3 / H311<br>Acute Tox. 3 / H331<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  <br> |
| Modified alkyl carboxylate<br>(ProClin 300)   |  | < 1 | Aquatic Chronic 4 / H413  |  |

| Name of substance   | Identifier                                   | Specific Conc. Limits  | M-Factors |
|---|--|--|-----------|
| Phenol GR for analysis<br>ACS   | CAS No<br>108-95-2<br><br>EC No<br>203-632-7 | Skin Corr. 1B; H314: C ≥ 3 %<br>Skin Irrit. 2; H315: 1 % ≤ C < 3 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %   |           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | CAS No<br>55965-84-9                         | Skin Corr. 1B; H314: C ≥ 0,6 %<br>Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %<br>Eye Dam. 1; H318: C ≥ 0,6 %<br>Eye Irrit. 2; H319: 0,06 % ≤ C < 0,6 %<br>Skin Sens. 1; H317: C ≥ 0,0015 % |           |

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For full text of abbreviations: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |            |            |           |                          |            |                           |             |
|--|---|------------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent   | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | phenol  | 108-95-2   | AGW        | 2         | 8                        | 4          | 16                        | TRGS 900    |
| DE   | reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | MAK        |           | 0,2                      |            | 0,4                       | DFG         |
| EU   | phenol  | 108-95-2   | IOELV      | 2         | 8                        | 4          | 16                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |               |           |            |            |          |          |
|-------------------------|---------------|-----------|------------|------------|----------|----------|
| Country                 | Name of agent | Parameter | Notation   | Identifier | Value    | Source   |
| DE                      | phenol        | phenol    | hydr       | BAT (BLW)  | 200 mg/l | DFG      |
| DE                      | phenol        | phenol    | hydr, crea | BLV        | 120 mg/g | TRGS 903 |

##### Notation

crea creatinine  
hydr hydrolysis

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

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|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |         |
|-----------------|---------|
| Solvent content | 98,41 % |
| Solid content   | 2,409 % |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture                                       |            |                       |             |
|--|------------|-----------------------|-------------|
| Name of substance  | CAS No     | Exposure route        | ATE         |
| Phenol GR for analysis ACS   | 108-95-2   | oral                  | 100 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | dermal                | 300 mg/kg   |
| Phenol GR for analysis ACS   | 108-95-2   | inhalation: dust/mist | 0,5 mg/l/4h |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | oral                  | 100 mg/kg   |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1) | 55965-84-9 | dermal                | 300 mg/kg   |

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| Acute toxicity estimate (ATE) of components of the mixture                                      |            |                    |           |
|---|------------|--------------------|-----------|
| Name of substance   | CAS No     | Exposure route     | ATE       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) | 55965-84-9 | inhalation: vapour | 3 mg/l/4h |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.  
Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <b>14.1 UN number</b>  | not subject to transport regulations                                  |
| <b>14.2 UN proper shipping name</b>  | not relevant  |
| <b>14.3 Transport hazard class(es)</b>   | none  |
| <b>14.4 Packing group</b>  | not relevant  |
| <b>14.5 Environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| <b>14.6 Special precautions for user</b>                                       | There is no additional information.                                   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> | The cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### **Deco-Paint Directive (2004/42/EC)**

|             |         |
|-------------|---------|
| VOC content | 98,11 % |
|-------------|---------|

##### **Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |         |
|-------------|---------|
| VOC content | 98,11 % |
|-------------|---------|

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### National regulations (Germany)

#### Ordinance on facilities for handling substances hazardous to water (AwSV, German ordinance on facilities for handling substances that are hazardous to water) (AwSV)

 Water hazard class - WHC 2 obviously hazardous to water - classification acc. to annex 1 (AwSV)  
 (Wassergefährdungsklasse)

### Technical instructions on air quality control (Germany)

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

#### Notation

 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2009/161/EU     | Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                           |
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | Workplace exposure limit  |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DFG             | Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| Eye Dam.        | Seriously damaging to the eye   |
| Eye Irrit.      | Irritant to the eye   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| Muta.       | Germ cell mutagenicity  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Resp. Sens. | Respiratory sensitisation   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STEL        | Short-term exposure limit   |
| STOT RE     | Specific target organ toxicity - repeated exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.



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Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text   |
|------|--|
| H225 | Highly flammable liquid and vapour.  |
| H301 | Toxic if swallowed.  |
| H311 | Toxic in contact with skin.  |
| H314 | Causes severe skin burns and eye damage.                                   |
| H317 | May cause an allergic skin reaction.                                       |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.   |
| H331 | Toxic if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects.                                      |
| H373 | May cause damage to organs through prolonged or repeated exposure.         |
| H400 | Very toxic to aquatic life.  |
| H410 | Very toxic to aquatic life with long lasting effects.                      |
| H413 | May cause long lasting harmful effects to aquatic life.                    |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
 Replaces version of: 28.10.2016 (GHS 1)

Revision: 21.04.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia Washing solution (concentrated 25-fold)  
 Reference number(s) WS.001.50.3, WS.001.12.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)  
 This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)  
 not required

#### 2.3 Other hazards

of no significance


### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

Description of the mixture

| Name of substance | Identifier  | Wt% | Classification acc. to GHS | Pictograms  |
|-------------------|---|-----|----------------------------|---|
| Sodium hydroxide  | CAS No<br>1310-73-2<br><br>EC No<br>215-185-5<br><br>REACH Reg. No<br>01-2119457892-27-<br>xxxx | < 1 | Skin Corr. 1 / H314        |  |

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
Replaces version of: 28.10.2016 (GHS 1)

Revision: 21.04.2017

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

Water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
Replaces version of: 28.10.2016 (GHS 1)

Revision: 21.04.2017

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel  
Remove persons to safety.

For emergency responders  
Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill  
Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques  
Use of adsorbent materials.

Other information relating to spills and releases  
Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation  
Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as  
Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
Replaces version of: 28.10.2016 (GHS 1)

Revision: 21.04.2017

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

These information are not available.

| Relevant DNELs of components of the mixture |           |           |                     |                                    |                   |                         |
|---|-----------|-----------|---------------------|------------------------------------|-------------------|-------------------------|
| Name of substance                           | CAS No    | End-point | Threshold level     | Protection goal, route of exposure | Used in           | Exposure time           |
| Sodium hydroxide                            | 1310-73-2 | DNEL      | 1 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - local effects |

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

##### Other safety parameters

## abia Washing solution (concentrated 25-fold)

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|   |   |
|---|---|
| pH (value)                              | 7,3 - 7,6 (1,195 g/cm <sup>3</sup> , 20 °C)   |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | not determined                                |
| Flash point                             | not determined                                |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | not determined                                |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

**Partition coefficient**

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
| Auto-ignition temperature   | not determined                    |
| Viscosity                   | not determined                    |
| Explosive properties        | none                              |
| Oxidising properties        | none                              |

**9.2 Other information**

|                 |         |
|-----------------|---------|
| Solvent content | 87,7 %  |
| Solid content   | 31,74 % |

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

#### 10.5 Incompatible materials

Oxidisers

#### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

##### Acute toxicity

Shall not be classified as acutely toxic.

##### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

##### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

## abia Washing solution (concentrated 25-fold)

Version number: GHS 2.0  
Replaces version of: 28.10.2016 (GHS 1)

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Specific target organ toxicity - repeated exposure  
Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard  
Shall not be classified as presenting an aspiration hazard.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment. WGK 3, strongly hazardous to water (Germany)

#### 12.2 Persistence and degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Other adverse effects

Data are not available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

|      |                                   |                                      |
|------|-----------------------------------|--------------------------------------|
| 14.1 | <b>UN number</b>                  | not subject to transport regulations |
| 14.2 | <b>UN proper shipping name</b>    | not relevant                         |
| 14.3 | <b>Transport hazard class(es)</b> |                                      |
|      | Class                             | -                                    |
| 14.4 | <b>Packing group</b>              | not relevant                         |
| 14.5 | <b>Environmental hazards</b>      |                                      |



## abia Washing solution (concentrated 25-fold)

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**14.6 Special precautions for user**  
There is no additional information.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**  
The cargo is not intended to be carried in bulk.

### Information for each of the UN Model Regulations

**Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**  
Not subject to ADR, RID and ADN.

**International Maritime Dangerous Goods Code (IMDG)**  
Not subject to IMDG.

**International Civil Aviation Organization (ICAO-IATA/DGR)**  
Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Relevant provisions of the European Union (EU)**

**Deco-Paint Directive (2004/42/EC)**

|             |        |
|-------------|--------|
| VOC content | 2,75 % |
|-------------|--------|

**Directive on industrial emissions (VOCs, 2010/75/EU)**

|             |        |
|-------------|--------|
| VOC content | 2,75 % |
|-------------|--------|

**National regulations (Germany)**

**Administrative Regulation on Substances Hazardous to Water (VwVwS)**

Water hazard class - WHC                      3   strongly hazardous to water - classification acc. to annex 3/annex 4 (VwVwS)  
(Wassergefährdungsklasse)

**Technical instructions on air quality control (Germany)**

| Number | Group of substances | Class | Conc.   | Mass flow | Mass concentration | Notation |
|--------|---------------------|-------|---------|-----------|--------------------|----------|
|        | not assigned        |       | 100 wt% |           |                    |          |

**Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)**

Storage class (LGK)                              12 (non-combustible liquids)

**15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## abia Washing solution (concentrated 25-fold)

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 Replaces version of: 28.10.2016 (GHS 1)

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### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                | Actual entry (text/value)                                     | Safety-relevant |
|---------|--|---|-----------------|
| 1.1     | Product name:<br>Washing solution (concentrated 25-fold) | Product name:<br>abia Washing solution (concentrated 25-fold) | yes             |
| 3.2     |  | Description of the mixture:<br>change in the listing (table)  | yes             |

#### Abbreviations and acronyms

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| ADN         | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR         | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP         | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL        | Derived No-Effect Level   |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS      | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS      | European List of Notified Chemical Substances   |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)   |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |

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| Abbr. | Descriptions of used abbreviations       |
|-------|--|
| VOC   | Volatile Organic Compounds               |
| vPvB  | Very Persistent and very Bioaccumulative |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text                                     |
|------|--|
| H314 | Causes severe skin burns and eye damage. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia TMB/substrate solution

Version number: GHS 2.0  
Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia TMB/substrate solution  
Reference number(s) SM.001.12.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
Sportfliegerstraße 4  
DE-12487 Berlin  
Germany

Telephone: +49 (0) 30 208 987 160  
Telefax: +49 (0) 30 208 987 199  
e-mail: info@ab-ds.de  
Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)  
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

##### Additional information

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)  
not required

#### 2.3 Other hazards

##### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## abia TMB/substrate solution

 Version number: GHS 2.0  
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### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

Description of the mixture

| Name of substance      | Identifier   | Wt%     | Classification acc. to GHS  | Pictograms  |
|------------------------|--|---------|---|---|
| N-methyl-2-pyrrolidone | CAS No<br>872-50-4<br><br>EC No<br>212-828-1<br><br>Index No<br>606-021-00-7<br><br>REACH Reg. No<br>01-2119472430-46-<br>xxxx | 1 - < 5 | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Repr. 1B / H360D<br>STOT SE 3 / H335 |  |

| Name of substance      | Identifier                                   | Specific Conc. Limits                                 | M-Factors |
|------------------------|--|---|-----------|
| N-methyl-2-pyrrolidone | CAS No<br>872-50-4<br><br>EC No<br>212-828-1 | Repr. 1B; H360D: C ≥ 5 %<br>STOT SE 3; H335: C ≥ 10 % |           |

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

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### 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## abia TMB/substrate solution

 Version number: GHS 2.0  
 Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation  
Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

 Protect against external exposure, such as  
 Frost

#### 7.3 Specific end use(s)

See section 16 for a general overview.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) |   |          |            |           |                          |            |                           |             |
|--|---|----------|------------|-----------|--------------------------|------------|---------------------------|-------------|
| Country  | Name of agent                                   | CAS No   | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source      |
| DE   | N-methyl-2-pyrrolidone                          | 872-50-4 | AGW        | 20        | 82                       | 40         | 164                       | TRGS 900    |
| EU   | N-methyl-2-pyrrolidone (1-methyl-2-pyrrolidone) | 872-50-4 | IOELV      | 10        | 40                       | 20         | 80                        | 2009/161/EU |

##### Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified  
 TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

| Biological limit values |                        |                                  |          |            |          |          |
|-------------------------|------------------------|----------------------------------|----------|------------|----------|----------|
| Country                 | Name of agent          | Parameter                        | Notation | Identifier | Value    | Source   |
| DE                      | N-methyl-2-pyrrolidone | 5-hydroxy-N-methyl-2-pyrrolidone |          | BLV        | 150 mg/l | TRGS 903 |

| Relevant DNELs of components of the mixture |          |          |                      |                                    |                   |                            |
|---|----------|----------|----------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | Endpoint | Threshold level      | Protection goal, route of exposure | Used in           | Exposure time              |
| N-methyl-2-pyrrolidone                      | 872-50-4 | DNEL     | 40 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| N-methyl-2-pyrrolidone                      | 872-50-4 | DNEL     | 80 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | acute - systemic effects   |

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| Relevant DNELs of components of the mixture |          |           |                   |                                    |                   |                            |
|---|----------|-----------|-------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level   | Protection goal, route of exposure | Used in           | Exposure time              |
| N-methyl-2-pyrrolidone                      | 872-50-4 | DNEL      | 19,8 mg/kg bw/day | human, dermal                      | worker (industry) | chronic - systemic effects |
| N-methyl-2-pyrrolidone                      | 872-50-4 | DNEL      | 208 mg/kg bw/day  | human, dermal                      | worker (industry) | acute - systemic effects   |

| Relevant PNECs of components of the mixture |          |           |                 |                       |                              |                              |
|---|----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 0,25 mg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 0,025 mg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 5 mg/l          | aquatic organisms     | water                        | intermittent release         |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 10 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 1,42 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 0,142 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| N-methyl-2-pyrrolidone                      | 872-50-4 | PNEC      | 0,138 mg/kg     | terrestrial organisms | soil                         | short-term (single instance) |

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation.

#### Individual protection measures (personal protective equipment)

##### Eye/face protection

Wear eye/face protection.

##### Skin protection

##### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.



## abia TMB/substrate solution

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |                                   |
|---|-----------------------------------|
| pH (value)                              | not determined                    |
| Melting point/freezing point            | not determined                    |
| Initial boiling point and boiling range | 100 °C                            |
| Flash point                             | not determined                    |
| Evaporation rate                        | not determined                    |
| Flammability (solid, gas)               | not relevant (fluid)              |
| Explosive limits                        | not determined                    |
| Vapour pressure                         | 0,32 hPa at 20 °C                 |
| Density                                 | 1,003 g/ml                        |
| Vapour density                          | this information is not available |
| Solubility(ies)                         | not determined                    |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
| Auto-ignition temperature   | 245 °C                            |
| Viscosity                   | not determined                    |
| Explosive properties        | none                              |
| Oxidising properties        | none                              |

## abia TMB/substrate solution

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### 9.2 Other information

|                                      |  |
|--------------------------------------|--|
| Solvent content                      | 100 %  |
| Solid content                        | 0 %  |
| Temperature class (EU, acc. to ATEX) | T3 (maximum permissible surface temperature on the equipment: 200°C) |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

## abia TMB/substrate solution

Version number: GHS 2.0  
Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment. WGK 1, slightly hazardous to water (Germany)

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## abia TMB/substrate solution

 Version number: GHS 2.0  
 Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

### SECTION 14: Transport information

- 14.1 UN number** not subject to transport regulations
- 14.2 UN proper shipping name** not relevant
- 14.3 Transport hazard class(es)**  
 Class -
- 14.4 Packing group** not relevant
- 14.5 Environmental hazards**
- 14.6 Special precautions for user**  
 There is no additional information.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**  
 The cargo is not intended to be carried in bulk.

#### Information for each of the UN Model Regulations

##### Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

Not subject to ADR, RID and ADN.

##### International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

##### International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

##### Deco-Paint Directive (2004/42/EC)

|             |       |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

##### Directive on industrial emissions (VOCs, 2010/75/EU)

|             |       |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

##### National regulations (Germany)

##### Administrative Regulation on Substances Hazardous to Water (VwVwS)

 Water hazard class - WHC 1 slightly hazardous to water - classification acc. to annex 3/annex 4 (VwVwS)  
 (Wassergefährdungsklasse)

##### Technical instructions on air quality control (Germany)

| Number    | Group of substances           | Class | Conc.       | Mass flow | Mass concentration   | Notation |
|-----------|-------------------------------|-------|-------------|-----------|----------------------|----------|
| 5.2.5     | organic substances            |       | ≥ 25 wt%    | 0,5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |
| 5.2.7.1.3 | reproductive toxic substances |       | 1 - < 5 wt% |           |                      | 4)       |

#### Notation

- 3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)
- 4) in compliance with the emission reduction dictate

## abia TMB/substrate solution

 Version number: GHS 2.0  
 Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

### Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                    | Actual entry (text/value)                    | Safety-relevant |
|---------|--|--|-----------------|
| 1.1     | Product name:<br>TMB/substrate solution      | Product name:<br>abia TMB/substrate solution | yes             |
| 9.1     | Vapour pressure:<br>not determined           | Vapour pressure:<br>0,32 hPa at 20 °C        | yes             |
| 9.1     | Auto-ignition temperature:<br>not determined | Auto-ignition temperature:<br>245 °C         | yes             |

### Abbreviations and acronyms

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| 2009/161/EU | Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC                           |
| ADN         | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR         | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW         | Workplace exposure limit  |
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP         | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL        | Derived No-Effect Level   |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS      | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS      | European List of Notified Chemical Substances   |
| Eye Dam.    | Seriously damaging to the eye   |
| Eye Irrit.  | Irritant to the eye   |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |

## abia TMB/substrate solution

 Version number: GHS 2.0  
 Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV       | Indicative occupational exposure limit value  |
| LGK         | Lagerklasse (storage class according to TRGS 510, Germany)  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| PNEC        | Predicted No-Effect Concentration   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Repr.       | Reproductive toxicity   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| STEL        | Short-term exposure limit   |
| STOT SE     | Specific target organ toxicity - single exposure  |
| TRGS        | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)  |
| TRGS 900    | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TRGS 903    | Biologische Grenzwerte (TRGS 903)   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code  | Text                              |
|-------|-----------------------------------|
| H315  | Causes skin irritation.           |
| H319  | Causes serious eye irritation.    |
| H335  | May cause respiratory irritation. |
| H360D | May damage the unborn child.      |

# Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

## abia TMB/substrate solution

Version number: GHS 2.0  
Replaces version of: 30.03.2017 (GHS 1)

Revision: 24.04.2017

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### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## abia Stopping reagent 0.2M

 Version number: GHS 3.0  
 Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name abia Stopping reagent 0.2M  
 Reference number(s) SR.020.25.3, SR.020.90.3

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

#### 1.3 Details of the supplier of the safety data sheet

AB Diagnostic Systems GmbH  
 Sportfliegerstraße 4  
 DE-12487 Berlin  
 Germany

Telephone: +49 (0) 30 208 987 160  
 Telefax: +49 (0) 30 208 987 199  
 e-mail: info@ab-ds.de  
 Website: www.ab-ds.de

#### 1.4 Emergency telephone number

Emergency information service +49 (0) 30 208 987 10  
 This number is only available during office hours

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                      | Cat-egory | Hazard class and category | Hazard state-ment |
|---------|-----------------------------------|-----------|---------------------------|-------------------|
| 3.2     | skin corrosion/irritation         | 2         | Skin Irrit. 2             | H315              |
| 3.3     | serious eye damage/eye irritation | 2         | Eye Irrit. 2              | H319              |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

- Pictograms

GHS07



- Hazard statements

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.



## abia Stopping reagent 0.2M

 Version number: GHS 3.0  
 Replaces version of: 08.02.2017 (GHS 2)

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### - Precautionary statements

|                |  |
|----------------|--|
| P264           | Wash ... thoroughly after handling.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P302+P352      | IF ON SKIN: Wash with plenty of water/...  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P321           | Specific treatment (see ... on this label).  |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P362           | Take off contaminated clothing.  |

### 2.3 Other hazards

of no significance


## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance  | Identifier  | Wt%     | Classification acc. to GHS                | Pictograms  |
|--------------------|---|---------|---|---|
| 95 % Sulfuric acid | CAS No<br>7664-93-9<br><br>EC No<br>231-639-5<br><br>Index No<br>016-020-00-8 | 1 - < 5 | Skin Corr. 1A / H314<br>Eye Dam. 1 / H318 |  |

| Name of substance  | Identifier                                    | Specific Conc. Limits  | M-Factors |
|--------------------|---|--|-----------|
| 95 % Sulfuric acid | CAS No<br>7664-93-9<br><br>EC No<br>231-639-5 | Skin Corr. 1A; H314: C ≥ 15 %<br>Skin Irrit. 2; H315: 5 % ≤ C < 15 %<br>Eye Dam. 1; H318: C ≥ 15 %<br>Eye Irrit. 2; H319: 5 % ≤ C < 15 % |           |

For full text of abbreviations: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

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Replaces version of: 08.02.2017 (GHS 2)

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### Following skin contact

Wash with plenty of soap and water.

### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

## 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

## 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

#### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Remove persons to safety.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

#### Advices on how to contain a spill

Covering of drains

#### Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

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Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation  
Use local and general ventilation. Use only in well-ventilated areas. Never add water to this product.
- Handling of incompatible substances or mixtures  
Do not mix with alkali.
- Keep away from  
Caustic solutions

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

### 7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

Frost

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

These information are not available.

### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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 Replaces version of: 08.02.2017 (GHS 2)

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### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | 0,6 - 0,7 (1.009 mg/cm <sup>3</sup> , 21 °C) (acid) |
| Melting point/freezing point            | not determined                                      |
| Initial boiling point and boiling range | not determined                                      |
| Flash point                             | not determined                                      |
| Evaporation rate                        | not determined                                      |
| Flammability (solid, gas)               | not relevant (fluid)                                |
| Explosive limits                        | not determined                                      |
| Vapour pressure                         | not determined                                      |
| Density                                 | not determined                                      |
| Vapour density                          | this information is not available                   |
| Relative density                        | information on this property is not available       |
| Solubility(ies)                         | not determined                                      |

#### Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
|-----------------------------|-----------------------------------|

## abia Stopping reagent 0.2M

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Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

|                           |                |
|---------------------------|----------------|
| Auto-ignition temperature | not determined |
| Viscosity                 | not determined |
| Explosive properties      | none           |
| Oxidising properties      | none           |

### 9.2 Other information

|                 |       |
|-----------------|-------|
| Solvent content | 100 % |
| Solid content   | 0 %   |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Oxidisers

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

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Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

## abia Stopping reagent 0.2M

Version number: GHS 3.0  
Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

##### Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

##### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

- |  |                                      |
|--|--------------------------------------|
| <b>14.1 UN number</b>  | not subject to transport regulations |
| <b>14.2 UN proper shipping name</b>  | not relevant                         |
| <b>14.3 Transport hazard class(es)</b>   |                                      |
| Class  | -                                    |
| <b>14.4 Packing group</b>  | not relevant                         |
| <b>14.5 Environmental hazards</b>  |                                      |
| <b>14.6 Special precautions for user</b>                                       |                                      |
| There is no additional information.  |                                      |
| <b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b> |                                      |
| The cargo is not intended to be carried in bulk.                               |                                      |

#### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

## abia Stopping reagent 0.2M

 Version number: GHS 3.0  
 Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### Deco-Paint Directive (2004/42/EC)

|             |        |
|-------------|--------|
| VOC content | 98,8 % |
|-------------|--------|

##### Directive on industrial emissions (VOCs, 2010/75/EU)

|             |        |
|-------------|--------|
| VOC content | 98,8 % |
|-------------|--------|

#### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)              | Actual entry (text/value)                                    | Safety-relevant |
|---------|--|--|-----------------|
| 1.1     | Product name:<br>Stopping reagent 0.2M | Product name:<br>abia Stopping reagent 0.2M                  | yes             |
| 3.2     |  | Description of the mixture:<br>change in the listing (table) | yes             |

#### Abbreviations and acronyms

| Abbr.      | Descriptions of used abbreviations  |
|------------|---|
| ADN        | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR        | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CAS        | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP        | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR        | Dangerous Goods Regulations (see IATA/DGR)  |
| EC No      | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EINECS     | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS     | European List of Notified Chemical Substances   |
| Eye Dam.   | Seriously damaging to the eye   |
| Eye Irrit. | Irritant to the eye   |
| GHS        | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA       | International Air Transport Association   |
| IATA/DGR   | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO       | International Civil Aviation Organization   |



# Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

## abia Stopping reagent 0.2M

 Version number: GHS 3.0  
 Replaces version of: 08.02.2017 (GHS 2)

Revision: 24.04.2017

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text                                     |
|------|--|
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation.                  |
| H318 | Causes serious eye damage.               |
| H319 | Causes serious eye irritation.           |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.