

## SECTION 1. Identification of the substance/mixture and of the company/enterprise

### 1.1. Product identifier

Product name : ABILUBE  
Product code: refer to sales department

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

Lubricant

Sectors of use:

Industrial Manufacturing[SU3]

Product category:

Lubricants, Greases and Release Products

Process categories:

Use in batch and other process (syn- thesis) where opportunity for exposure arises[PROC4], Industrial spraying[PROC7], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B], Treatment of articles by dipping and pouring[PROC13]

Not recommended uses

Do not use for purposes other than those listed

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

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#### 1.4. Emergency telephone number

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## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05, GHS07

Hazard Class and Category Code(s):

Skin Irrit. 2, Eye Dam. 1

Hazard statement Code(s):

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

### 2.2. Label elements

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

Pictogram, Signal Word Code(s):

GHS05 - Danger

Hazard statement Code(s):

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

Supplemental Hazard statement Code(s):

EUH208 - Contains preservatives: Benzisothiazolinone. May produce an allergic reaction.

Precautionary statements:



**Prevention**

P280 - Wear protective gloves and eye/faceprotection.

**Response**

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.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

**Contains:**

Tetrasodium ethylene diamine tetraacetate

**Contains (Reg.EC 648/2004):**

5% < 15% EDTA and salts thereof, < 5% non-ionic surfactants, anionic surfactants

Preservatives: Benzisothiazolinone

**2.3. Other hazards**

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with the provisions of Dlgs n. 81. April 9, 2008. Workers exposed to this chemical agent should not be subject to health surveillance if the results of the risk assessment show that, depending on the type and quantity of dangerous chemical agent and method and frequency of exposure to the agent, there is only a "moderate Risk" for the health and safety of workers and that the measures laid down in the Decree are sufficient to reduce the risk.

Do not ingest. Keep out of reach of children.

For professional use only

**SECTION 3. Composition/information on ingredients**

**3.1 Substances**

Irrilevant

**3.2 Mixtures**

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
Tetrasodium ethylene diamine tetraacetate	>= 5 < 10%	Acute Tox. 4, H302; Eye Dam. 1, H318; Acute Tox. 4, H332; STOT RE 2, H373	607-428-00-2	64-02-8	200-573-9	01-2119486 762-27-XXX X
2-Butoxyethanol	>= 5 < 10%	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Acute Tox. 4, H332	603-014-00-0	111-76-2	203-905-0	01-2119475 108-36-XXX X
2,2',2"-nitrilotrietanolo substance for which there are	>= 1 < 5%			102-71-6	203-049-8	01-2119486 482-31-XX

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
Community workplace exposure limits						XX
Potassium hydroxide substance for which there are Community workplace exposure limits	>= 0,5 < 1%	Met. Corr. 1, H290; Acute Tox. 4, H302; Skin Corr. 1A, H314	019-002-00-8	1310-58-3	215-181-3	01-2119487 136-33-XXX X
diethanolamine substance for which there are Community workplace exposure limits	>= 0,1 < 1%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT RE 2, H373	603-071-00-1	111-42-2	203-868-0	01-2119488 930-28-XXX X
Sodium hydroxide substance for which there are Community workplace exposure limits	>= 0,1 < 1%	Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	011-002-00-6	1310-73-2	215-185-5	01-2119457 892-27-XXX X
Benzisothiazolinone	>= 0,005 < 0,1%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318; Aquatic Acute 1, H400 Acute toxicity M-factor = 10	613-088-00-6	2634-33-5	220-120-9	01-2120761 540-60-XXX X

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

#### Direct contact with skin (of the pure product):

Take off immediately contaminated clothing.  
Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.  
In case of contact with skin, wash immediately with water.

#### Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately  
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

#### Ingestion:

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

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

In contact with eyes it causes very strong irritation, including redness and tearing. In contact with the skin it causes irritation and redness. In contact with skin it may cause skin rash.

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

If skin irritation occurs: Get medical advice/attention.  
Immediately call a POISON CENTER or a doctor.

## **SECTION 5. Firefighting measures**

### **5.1. Extinguishing media**

Suggested extinguishing media:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

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

No data available.

### **5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.

Keep containers cool with water spray

## **SECTION 6. Accidental release measures**

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

6.1.1 For non-emergency personnel:

Move away from the area surrounding the spill or release. Not smoking. Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Eliminate all open flames and possible sources of ignition. Not smoking. Set up adequate ventilation. Evacuate the danger area and, if necessary, consult an expert.

### **6.2. Environmental precautions**

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

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

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.

Prevent it from entering the sewer system.

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6.3.2 Cleaning up:  
After wiping up, wash with water the area and materials involved

6.3.3 Other information:  
None in particular.

#### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

### **SECTION 7. Handling and storage**

#### **7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors  
Wear protective gloves and eye/faceprotection.  
At work do not eat or drink.  
See also paragraph 8 below.

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

Keep in original container closed tightly. Do not store in open or unlabelled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

#### **7.3. Specific end use(s)**

Industrial Manufacturing:  
Handle with extreme caution.  
Store in a well ventilated place away from heat sources. (7-30°C)

See the annex exposure scenario.

### **SECTION 8. Exposure controls/personal protection**

#### **8.1. Control parameters**

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Related to contained substances:  
2-Butoxyethanol:  
Limit Value – Eight hours  
(ppm)/(mg/m<sup>3</sup>)  
Australia: 20/96.9  
Austria: 20/98

Belgium: 20/98  
Canada – Ontario: 20/x  
Canada – Québec: 20/97  
Denmark:20/98  
European Union: 20/98  
Finland: 20/98  
France: 10/49  
Germany(AGS):10/49  
Germany (DFG): 10(1)/49  
Hungary: x/98  
Ireland: 20/98  
Italy: 20/98  
Japan: 25  
Latvia: 20/98  
New Zealand: 25/121  
Poland: x/98  
Singapore: 25/121  
South Korea: 20/97  
Spain: 20/98  
Sweden: 10/50  
Switzerland: 10/49  
The Netherlands: x/100  
Turkey: 20/98  
USA – NIOSH: 5/24  
USA-OSHA: 50/240  
United Kingdom: 25/123

Limit Value – Short term  
(ppm)/(mg/m<sup>3</sup>)  
Australia: 50/242  
Austria: 40/200  
Belgium: 50/246  
Canada – Ontario: x/x  
Canada – Québec: x/x  
Denmark:40/196  
European Union: 50/246  
Finland: 50(1)/250(1)  
France: 50/246  
Germany(AGS):40(1)/196(1)  
Germany (DFG): 20(2)/98  
Hungary: x/246  
Ireland: 50(1)/246(1)  
Italy: 50/246  
Japan: x/x  
Latvia: 50(1)/246(1)  
New Zealand: 25/121  
Poland: x/200  
Singapore: x/x  
South Korea: x/x  
Spain: 50/245  
Sweden: 20(1)/100(1)  
Switzerland: 20/98  
The Netherlands: x/246  
Turkey: 50(1)/246(1)  
USA – NIOSH: x/x  
USA-OSHA: x/x  
United Kingdom: 50/246

Remarks

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European Union Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] ~ (for references see bibliography)  
Finland (1) 15 minutes average value  
France Bold type: Restrictive statutory limit values  
Germany (AGS) (1) 15 minutes average value  
Germany (DFG) (1) MAK value for the sum of the concentration of 2 – butoxyethanol and 2-butoxyethylacetate (2) 15 minutes average value  
Ireland (1) 15 minutes reference period  
Italy skin  
Lithuania (1) 15 minutes average value  
Spain skin  
Sweden (1) Short-term value, 15 minutes average value  
Turkey (1) 15 minutes average value

2,2',2''-nitrotolueno:  
Limit value - Eight hours  
(ppm)/(mg/m<sup>3</sup>)

Australia: x/5  
Austria: x/5 inhalable aerosol  
Belgium: x/5  
Canada – Ontario: 0,5/3,1  
Canada - Québec: x/5  
Denmark: 0,5/3,1  
Finland: x/5  
Germany (DFG): x/5(1)  
Ireland: x/5  
New Zealand: x/5  
Singapore: x/5  
Spain: x/5  
Sweden: 0,8/5  
Switzerland: x/5 inhalable aerosol

Limit value - Short term  
(ppm)/(mg/m<sup>3</sup>)

Austria: 0,16/10 (1)  
Denmark: 1/6,2  
Germany (DFG):x/10(1)(2)  
Sweden: 1,6(1)/10(1)  
Switzerland: x/20 inhalable aerosol

Remarks:

Germany (DFG): (1) Inhalable fraction (2) 15 minutes average value  
Sweden: (1) Short term value, 15 minutes average value

Potassium hydroxide:  
ACGIH - C: 2 mg/m<sup>3</sup>

Limit value – Eight hours  
(ppm)/(mg/m<sup>3</sup>)  
Austria: x/2 inhalable aerosol  
Denmark: x/2  
Hungary: x/2  
Japan (JSOH): x/2(1)  
Poland: x/0,5

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Spain: x/2  
Sweden: x/1  
Switzerland: x/2 inhalable aerosol

Limit Value – Short Term

(ppm)/(mg/m<sup>3</sup>)

Australia: x/2(1)

Belgium: x/2(1)(2)

Canada - Ontario: x/2(1)

Canada – Québec: x/2(1)

Denmark: x/2

Finland: x/2(1)

France: x/2

Hungary: x/2

Ireland: x/2(1)

New Zealand: x/2(1)

People's Republic of China: x/2(1)

Poland: x/1

Singapore: x/2

South Korea: x/2(1)

Sweden: x/2(1)

USA – NIOSH: x/2(1)

United Kingdom: x/2

Remarks:

Australia: (1) Ceiling limit value

Belgium: (1) Additional indication "M" means that irritation occurs when the exposure exceeds the limit value or there is a risk of acute poisoning. The work process must be designed in such a way that the exposure never exceeds the limit value. For evaluation, the sampled period should be as short as possible. However, the sampled period shall be long enough to perform a reliable measurement. The measured result shall be related to the considered period.

Canada – Ontario: (1) Ceiling limit value

Canada – Québec: (1) Ceiling limit value

Finland: (1) Ceiling limit value

Ireland: (1) 15 minutes reference period

Japan (JSOH): (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day

New Zealand: (1) Ceiling limit value

People's Republic of China: (1) Ceiling limit value

South Korea: (1) Ceiling limit value

Sweden: (1) Inhalable dust (2) Ceiling limit value

USA – NIOSH: (1) Ceiling limit value (15 min)

Argentina: CMP-C: 2 mg mg/m<sup>3</sup>

Czech Republic: PEL 1 mg/m<sup>3</sup>/ NPK-P 2 mg/m<sup>3</sup>

Italy: ACGIH C2 mg/m<sup>3</sup> - Note: URT, eye, and skin irr

Estonia: THRESHOLD (average concentration of the chemical inhaled in the air during a working day or a working week) 2 mg/m<sup>3</sup>

Norway: ceiling value (a moment value that indicates the maximum concentration of a chemical in the breathing zone that should not be exceeded) 2 mg/m<sup>3</sup>

South Africa: Short Term OEL-CL mg/m<sup>3</sup> 2

diethanolamine:

Limit value - Eight hours

(ppm)/(mg/m<sup>3</sup>)

Australia: 3/13

Austria: 0,46/2  
Belgio: 0,46/2  
Canada – Ontario: x/1 (1)  
Canada - Québec: 3/13  
Denmark: 0,46/2  
Finland: 0,46/2  
France: 3/15  
Germany (DFG): x/1 (1)  
Ireland: x/1 (1)  
New Zealand: 3/13  
Poland: x/9  
Singapore: 0,46/2  
South Korea: 0,46/2  
Spain: 0,46/2  
Sweden: 3/5  
Switzerland: x/1 respirable aerosol  
USA - NIOSH: 3/15  
United Kingdom: :[3]/[13]

Limit value - Short term  
(ppm)/(mg/m<sup>3</sup>)

Austria: 0,92/4  
Denmark: 0,92/4  
Germany (DFG): x/1 (1)(2)  
Sweden: 6 (1 )/30 (1)  
Sweden: 3/5  
Switzerland: x/1 rinhalable aerosol

Canada – Ontario: (1) Inhalable aerosol and vapour  
Germany (DFG): (1) Inhalable fraction and vapour (2) 15 minutes reference period  
Ireland: (1) Inhalable fraction and vapour  
Spain: skin  
Sweden: (1) Short-term value, 15 minutes average value  
United Kingdom: The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list

Sodium hydroxide:

Limit value – Eight hours

(ppm)/(mg/m<sup>3</sup>)

Austria: x/2 inhalable aerosol  
Belgium: x/2 (1)  
Denmark: x/2  
France: x/2  
Hungary: x/2  
Japan (JSOH): x/2(1)  
Latvia: x/0,5  
Poland: x/0,5  
Romania: x/1  
Spain: x/2  
Sweden: x/1 (1)  
Switzerland: x/2 inhalable aerosol (MAK)  
USA – OSHA: x/2

Limit Value – Short Term

(ppm)/(mg/m<sup>3</sup>)

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Australia: x/2(1)  
Austria: x/4 inhalable aerosol  
Canada - Ontario: x/2(1)  
Canada – Québec: x/2(1)  
Denmark: x/2  
Finland: x/2(1)  
Hungary: x/2  
Ireland: x/2(1)  
New Zealand: x/2(1)  
People's Republic of China: x/2(1)  
Poland: x/1  
Romania: x/3(1)  
Singapore: x/2  
South Korea: x/2(1)  
Sweden: x/2(1)(2)  
Switzerland: x/2 inhalable aerosol (MAK)  
USA – NIOSH: x/2(1)  
United Kingdom: x/2

Remarks:

Australia: (1) Ceiling limit value  
Canada – Ontario: (1) Ceiling limit value  
Canada – Québec: (1) Ceiling limit value  
Finland: (1) Ceiling limit value  
Ireland: (1) 15 minutes reference period  
Japan: (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day  
New Zealand: (1) Ceiling limit value  
People's Republic of China: (1) Ceiling limit value  
South Korea: (1) Ceiling limit value  
Romania: (1) 15 minutes average value  
Sweden: (1) Inhalable dust (2) Ceiling limit value  
USA – NIOSH: (1) Ceiling limit value (15 min)  
Argentina: CMP-C: 2 mg/m<sup>3</sup>  
Czech Republic: PEL 1 mg/m<sup>3</sup>/ NPK-P 2 mg/m<sup>3</sup>  
Italy: OEL: ACGIH -STEL: C 2.0 mg/m<sup>3</sup>; Tipo OEL: ACGIH - STEL: C2 mg/m<sup>3</sup> - Note: URT, eye, and skin irrit  
Estonia: short-term exposure limit (maximum chemical substance average allowable concentration in inhaled air - 15 minutes) 2 mg/m<sup>3</sup>(Ceiling limit" means a maximum permissible continuous concentration of 15 minutes in the air for rapidly acting substances)  
Norway: ceiling value (a moment value that indicates the maximum concentration of a chemical in the breathing zone that should not be exceeded) 2 mg/m<sup>3</sup>  
Lithuania: NRD 2 mg/m<sup>3</sup>  
Slovakia: NPEL 2 mg/m<sup>3</sup>  
South Africa: Short Term OEL-CL 2 mg/m<sup>3</sup>

- Substance: Tetrasodium ethylene diamine tetraacetate  
DNEL

Systemic effects Long term Consumers oral = 25 (mg/kg bw/day)

Local effects Long term Workers inhalation = 1,5

Local effects Long term Consumers inhalation = 0,6 (mg/m<sup>3</sup>)

Local effects Short term Workers inhalation = 3 (mg/m<sup>3</sup>)

Local effects Short term Consumers inhalation = 1,2 (mg/m<sup>3</sup>)

PNEC

Sweet water = 2,2 (mg/l)

Sea water = 0,22 (mg/l)

intermittent emissions = 1,56 (mg/l)

STP = 43 (mg/l)

ground = 0,72 (mg/kg ground)

- Substance: 2-Butoxyethanol

DNEL

Systemic effects Long term Workers inhalation = 98 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 125 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 59 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers dermal = 75 (mg/kg bw/day)  
Systemic effects Long term Consumers oral = 6,3 (mg/kg bw/day)  
Systemic effects Short term Workers inhalation = 1091 (mg/m<sup>3</sup>)  
Systemic effects Short term Workers dermal = 89 (mg/kg bw/day)  
Systemic effects Short term Consumers inhalation = 426 (mg/m<sup>3</sup>)  
Systemic effects Short term Consumers dermal = 89 (mg/kg bw/day)  
Systemic effects Short term Consumers oral = 26,7 (mg/kg bw/day)  
Local effects Long term Workers dermal = 75 (mg/kg bw/day)  
Local effects Short term Workers inhalation = 246 (mg/m<sup>3</sup>)  
Local effects Short term Consumers inhalation = 147 (mg/m<sup>3</sup>)

PNEC

Sweet water = 8,8 (mg/l)  
sediment Sweet water = 34,6 (mg/kg/sediment)  
Sea water = 0,88 (mg/l)  
sediment Sea water = 3,46 (mg/kg/sediment)  
intermittent emissions = 9,1 (mg/l)  
STP = 463 (mg/l)  
ground = 2,33 (mg/kg ground)

- Substance: 2,2',2"-nitrilotriethanol

DNEL

Systemic effects Long term Workers inhalation = 5 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 6,3 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 1,25 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers dermal = 3,1 (mg/kg bw/day)  
Systemic effects Long term Consumers oral = 13 (mg/kg bw/day)  
Local effects Long term Workers inhalation = 5  
Local effects Long term Consumers inhalation = 1,25 (mg/m<sup>3</sup>)

PNEC

Sweet water = 0,32 (mg/l)  
sediment Sweet water = 1,7 (mg/kg/sediment)  
Sea water = 0,032 (mg/l)  
sediment Sea water = 0,17 (mg/kg/sediment)  
intermittent emissions = 5,12 (mg/l)  
STP = 10 (mg/l)  
ground = 0,151 (mg/kg ground)

- Substance: Potassium hydroxide

DNEL

Local effects Long term Workers inhalation = 1  
Local effects Long term Consumers inhalation = 1 (mg/m<sup>3</sup>)

- Substance: diethanolamine

DNEL

Systemic effects Long term Workers dermal = 0,13 (mg/kg bw/day)  
Systemic effects Long term Consumers dermal = 0,07 (mg/kg bw/day)  
Systemic effects Long term Consumers oral = 0,06 (mg/kg bw/day)  
Local effects Long term Workers inhalation = 1  
Local effects Long term Consumers inhalation = 0,25 (mg/m<sup>3</sup>)

PNEC

Sweet water = 0,02 (mg/l)

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sediment Sweet water = 0,092 (mg/kg/sediment)  
Sea water = 0,002 (mg/l)  
sediment Sea water = 0,0092 (mg/kg/sediment)  
STP = 100 (mg/l)  
ground = 0,007 (mg/kg ground)

- Substance: Sodium hydroxide

DNEL

Systemic effects Short term Workers inhalation = 1 (mg/m<sup>3</sup>)

Systemic effects Short term Consumers inhalation = 1 (mg/m<sup>3</sup>)

Local effects Short term Workers inhalation = 1 (mg/m<sup>3</sup>)

Local effects Short term Consumers inhalation = 1 (mg/m<sup>3</sup>)

- Substance: Benzisothiazolinone

DNEL

Systemic effects Long term Workers inhalation = 6,81 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 0,966 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,2 (mg/m<sup>3</sup>)

Systemic effects Long term Consumers dermal = 0,345 (mg/kg bw/day)

PNEC

Sweet water = 0,011 (mg/l)

sediment Sweet water = 0,0499 (mg/kg/sediment)

Sea water = 0,001 (mg/l)

sediment Sea water = 0,00499 (mg/kg/sediment)

STP = 1,03 (mg/l)

ground = 10 (mg/kg ground)

## 8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

Not needed for normal use.

In case of emergency or when handling pure product wear protective goggles (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

During working operation wear protective clothing (generic workwear / antacid, safety shoes or other protective equipment) according to the instructions of the employer

(c) Respiratory protection

Not needed for normal use

In case of insufficient ventilation or emergency, use mask with universal ABECK filters (EN 405) unless otherwise provided by the employer and / or assessments of environmental investigations hygienistic

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(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices and avoid to disperse the product into the environment.

## SECTION 9. Physical and chemical properties

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

Physical and chemical properties	Value	Determination method
Appearance	clear yellow liquid	
Odour	not determined as considered not relevant for the characterization of the product	
Odour threshold	not determined as considered not relevant for the characterization of the product	
pH	9,5 ± 0,5 (20°C; sol.3%); 9,5 ± 0,5 (20°C; 100%)	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	
Evaporation rate	not determined as considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Vapour density	not determined as considered not relevant for the characterization of the product	
Relative density	1,05 ± 0,05 (20°C)	
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient: n-octanol/water	not determined as considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
Viscosity	not determined as considered not relevant for the characterization of the product	
Explosive properties	not determined as considered not relevant for the characterization of the product	
Oxidising properties	not determined as considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
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### 9.2. Other information

No data available.

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

=====  
Related to contained substances:  
Potassium hydroxide:  
It is not pyrophoric

Sodium hydroxide:  
Highly reactive product

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

There are no hazardous reactions

### 10.4. Conditions to avoid

=====  
Related to contained substances:  
Potassium hydroxide:  
Avoid extreme humidity conditions

Sodium hydroxide:  
Absorbs carbon dioxide when exposed to air.

### 10.5. Incompatible materials

It can generate flammable gases in contact with elementary metals, nitrides, inorganic sulfides, strong reducing agents.  
It can generate toxic gases in contact with inorganic sulfides, strong reducing agents.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

## SECTION 11. Toxicological information

### 11.1. Information on toxicological effects

ATE(mix) oral = 8.452,9 mg/kg  
ATE(mix) dermal = 18.333,3 mg/kg  
ATE(mix) inhal = 79,7 mg/l/4 h

(a) acute toxicity: Tetrasodium ethylene diamine tetraacetate: Ingestion - LD50 rat (mg / kg / 24h bw): 1 780 - 2 000

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): nd

Inhalation - LD50 rat (mg / l / 4h): > 1 - 5 (dust-fog)

2-Butoxyethanol: Ingestion - LD50 guinea pig (mg / kg / 24h bw): 1300 (similar to OECD Guideline 401)

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): 1100

CL50 guinea pig ( inhalation): > 400 ppm 7 h (comparable to OECD 403) No mortality was observed. Steam has been tested.

2,2',2"-nitrilotrietanolo: LD50 rat (mg / kg / 24h bw): 6400

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): na

Inhalation - LD50 rat (mg / l / 4h): > 2000

Potassium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): 333 - 388

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): nd

Inhalation - LD50 rat (mg / l / 4h): nd

diethanolamine: LD50 rat (mg / kg / 24h bw): 1600

Skin contact LC50 rat / rabbit (mg / kg / 24h bw): na

Inhalation - LD50 rat (mg / l / 4h): Inhalation risk test : Inhalation of a highly saturated vapor-air mixture does not represent an acute risk (no mortality within 8 hours).

Sodium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): nd

Skin contact - LC50 rabbit (mg / kg / 24h bw): 1350

Inhalation - LD50 rat (mg / l / 4h): nd

Benzisothiazolinone: Ingestion - LD50 rat (mg / kg / 24h bw): 670

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): > 2000

(b) skin corrosion/irritation If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

Tetrasodium ethylene diamine tetraacetate: Not corrosive

2-Butoxyethanol: Non-corrosive

2,2',2"-nitrilotrietanolo: Not corrosive

Potassium hydroxide: Corrosive

diethanolamine: Not corrosive

Sodium hydroxide: Corrosive

Benzisothiazolinone: Corrosive

Tetrasodium ethylene diamine tetraacetate: Treatment of intact rabbit skin with an aqueous 80% Na4 EDTA preparation caused mild or absent irritation. These data show that it is not necessary to classify and label the substance for skin irritant properties based on EU or GHS regulations.

2-Butoxyethanol: Non-irritating

2,2',2"-nitrilotrietanolo: Not irritating

Potassium hydroxide: Irritating

diethanolamine: Irritating

Sodium hydroxide: Irritating

Benzisothiazolinone: Irritating

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Tetrasodium ethylene diamine tetraacetate: The opacity caused by the instillation of the undiluted substance in the eye of the rabbits is irreversible. These data demonstrate that it is necessary to classify and label the substance for irritant and corrosive properties according to EU or GHS regulations.

2-Butoxyethanol: Non-corrosive



2,2',2''-nitrilotrietanolo: Not corrosive  
Potassium hydroxide: Corrosive  
diethanolamine: Corrosive  
Sodium hydroxide: Corrosive  
Benzisothiazolinone: Corrosive  
Tetrasodium ethylene diamine tetraacetate: The opacity caused by the instillation of the undiluted substance in the eye of the rabbits is irreversible. These data demonstrate that it is necessary to classify and label the substance for irritant and corrosive properties according to EU or GHS regulations.  
2-Butoxyethanol: Irritating  
2,2',2''-nitrilotrietanolo: Not irritating  
Potassium hydroxide: Irritating  
diethanolamine: Irritating  
Sodium hydroxide: Irritating  
Benzisothiazolinone: Irritating  
(d) respiratory or skin sensitization: Tetrasodium ethylene diamine tetraacetate: Not sensitizing  
2-Butoxyethanol: Non-sensitizing  
2,2',2''-nitrilotrietanolo: Not sensitizing  
Potassium hydroxide: Not sensitizing  
diethanolamine: Not sensitizing  
Sodium hydroxide: Not sensitizing  
Benzisothiazolinone: Sensitizing  
(e) germ cell mutagenicity: Tetrasodium ethylene diamine tetraacetate: As for Na<sub>4</sub>EDTA, no genotoxicity studies are available, therefore data from other sodium EDTA and free acid EDTA salts have been considered. (For the read-across justification, see also section 13). The Na EDTA salts were negative in numerous ames tests. The Na salts of EDTA were negative in numerous tests on mouse lymphoma. Numerous other tests were performed in vitro and in general the EDTA was not genotoxic in vitro. In vivo, somatic cells in mice (bone marrow cells) showed negative results compared to micronuclei endpoints, aneuploidy and sibling chromatid exchanges. In germ cells, negative results have been obtained for the induction of structural chromosomal aberrations in spermatogonia, for the induction of aneuploidy in primary and secondary spermatocytes and also for the induction of dominant lethals. A positive result was obtained in a micronuc test  
2-Butoxyethanol: Non-mutagenic  
2,2',2''-nitrilotrietanolo: Not mutagenic  
Potassium hydroxide: Not mutagenic  
diethanolamine: Not mutagenic  
Sodium hydroxide: Not mutagenic  
Benzisothiazolinone: Non-mutagenic  
(f) carcinogenicity: Tetrasodium ethylene diamine tetraacetate: There are no epidemiological studies available to evaluate the carcinogenic potential of Na<sub>4</sub>EDTA. No carcinogenicity studies of Na<sub>4</sub>EDTA are available. Therefore, carcinogenicity studies with Na<sub>3</sub>EDTA were used for evaluation. A biological assay of Na<sub>3</sub>EDTA for possible carcinogenicity was conducted by administering test material in the diet to Fischer rats 344 and B6C3F1 mice. The studies did not report specific data on renal toxicity in either species even though histology was performed. Although a variety of tumors occurred between the test and control animals of both species, no tumor was related to treatment. Summing up the negative results of the carcinogenicity study and of the SHE cell transformation tests, as well as the general non-mutagenicity after oral doses, it can be concluded that there are no concerns about a carcinogenic potential of EDTA.  
2-Butoxyethanol: Non-carcinogenic  
2,2',2''-nitrilotrietanolo: Not available  
Potassium hydroxide: Not available  
diethanolamine: Not carcinogenic  
Sodium hydroxide: Not carcinogenic  
Benzisothiazolinone: Not available  
(g) reproductive toxicity: Tetrasodium ethylene diamine tetraacetate: Numerous in vitro tests are available on the teratogenic effects of EDTA or Na salts of EDTA. However, they gave inconsistent results and were generally not well reported. Therefore they were not considered for risk assessment. There are 2 cases of pregnant women treated with CaNa<sub>2</sub>EDTA due to lead intoxication. However, as these treatments were performed late in pregnancy, these data were not considered for risk assessment. Endpoint conclusion: no observed adverse effects (negative)  
2-Butoxyethanol: Non-toxic for reproduction  
2,2',2''-nitrilotrietanolo: Not toxic  
Potassium hydroxide: Not available

diethanolamine: Not toxic  
Sodium hydroxide: Non-toxic for reproduction  
Benzisothiazolinone: Not available  
(h) specific target organ toxicity (STOT) single exposure: Tetrasodium ethylene diamine tetraacetate: Non-toxic  
2-Butoxyethanol: Not available  
2,2',2"-nitrilotrietanolo: Not toxic  
Potassium hydroxide: Not available  
diethanolamine: Not toxic  
Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion.  
Benzisothiazolinone: Not available  
(i) specific target organ toxicity (STOT) repeated exposure Tetrasodium ethylene diamine tetraacetate: Based on the results obtained in the toxicity studies and taking into account the provisions established in the CLP Regulation, a classification as STOT RE Cat 2 (H373)  
NOAEL oral (rat): 500 mg / kg bw / day  
NOAEL oral (mouse) is justified : 938 mg / kg bw / day  
NOAEC inhalation (rat): 3 - 15 mg / m<sup>3</sup> air  
LOAEC inhalation (rat): 15 - 30 mg / m<sup>3</sup> air  
2-Butoxyethanol: Not available  
2,2',2"-nitrilotrietanolo: Not toxic  
Potassium hydroxide: Not available  
diethanolamine: Toxic for repeated exposure to liver, blood and kidneys with oral route  
Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion. The symptoms of pulmonary edema often do not manifest themselves before a few hours and are exacerbated by physical exertion. Rest and medical observation are therefore essential  
Benzisothiazolinone: Not available  
(j) aspiration hazard: Tetrasodium ethylene diamine tetraacetate: Not classified  
2-Butoxyethanol: Not available  
2,2',2"-nitrilotrietanolo: Not available  
Potassium hydroxide: Not available  
diethanolamine: Not available  
Sodium hydroxide: Not available  
Benzisothiazolinone: Not available

## SECTION 12. Ecological information

### 12.1. Toxicity

=====  
Related to contained substances:  
Tetrasodium ethylene diamine tetraacetate:  
Acute toxicity - fish LC50 (mg / l / 96h): 41 - 1 592 (frequent value > 100)  
Acute toxicity - fish LC100 (mg / l / 96h) 75 - 1 846  
Acute toxicity - crustaceans EC50 (mg / l / 48h): 140  
Acute toxicity - crustaceans EC50 (mg / l / 24h): 610 - 625 (frequent value > 500)  
Acute toxicity - crustaceans EC0 (mg / l / 48h): 100  
Acute toxicity - crustaceans EC0 (mg / l / 24h): 310  
Acute toxicity - crustaceans E100 (mg / l / 48h): 180  
Acute algae toxicity ErC50 (mg / l / 72h): 2.77 - 1 000 (frequent data > 100)  
Acute algae toxicity EC10 (µg / l / 72h): 700 - 307 630  
Acute algae toxicity EC90 (mg / l / 72h): 100  
Chronic toxicity - NOEC fish (mg / l 35 g) 25.7  
Chronic toxicity - crustaceans NOEC (mg / l 21g): 25  
Chronic toxicity - crustaceans LOEC (mg / l 21g): 50  
Chronic toxicity - NOEC algae (µg / l 72h): 390 - 100 000  
Chronic toxicity - LOEC algae (µg / l 21g): 780 - 1 000 000

Microorganism toxicity - EC10 (30 min) 500 mg / L  
Terrestrial macroorganism toxicity except anthropod EC50 (14 g) 156.46 mg / kg soil  
C(E)L50 (mg/l) = 100  
NOEC (mg/l) = 25

**2-Butoxyethanol:**

Acute toxicity - LC50 (mg / l / 96h): 1474  
Acute toxicity - EC50 (mg / l / 48h) crustaceans: 1550  
Acute algae toxicity ErC50 (mg / l / 72-96h): 911-1840  
Chronic toxicity - NOEC Mg / l: > 100  
Chronic toxicity - NOEC crustaceans mg / l: 100  
C(E)L50 (mg/l) = 1474

**2,2',2"-nitrilotrietanolo:**

Acute toxicity - LC50 fish (mg / l / 96h): 11800  
Acute toxicity - crustaceans EC50 (mg / l / 48h): 609.88  
Acute algae toxicity ErC50 (mg / l / 72-96h): 512  
Chronic toxicity - NOEC fish (mg / L):  
Chronic Toxicity - NOEC crustaceans (mg / l):  
Chronic NOE toxicity (mg / l):

**Potassium hydroxide:**

Acute toxicity - fish LC50 (mg / l / 96h): 50 - 165  
Acute toxicity - crustaceans EC50 (mg / l / 48h): nd  
Acute algae toxicity ErC50 (mg / l / 72-96h): nd  
Chronic toxicity - NOEC fish (mg / l): nd  
Chronic toxicity - crustaceans NOEC (mg / l): nd  
Chronic toxicity algae NOEC (mg / l): nd  
Potassium hydroxide is a strongly alkaline substance that dissociates completely in water to K + and OH- (OIDD SIDS potassium hydroxide, 2002). Therefore, the possible effective effect would result from the pH effect. However, the pH will remain between the expected environmental ranges  
C(E)L50 (mg/l) = 80

**diethanolamine:**

Acute toxicity - LC50 (mg / l / 96h): 1,460 -i Pimephales promelas (static)  
Acute toxicity - EC50 crust (mg / l / 48h): 55 - Daphnia magna  
Acute algae ErC50 (mg / l / 72-96h) : Mg / l: NO (mg / l): 2.2 (growth rate) - Pseudokirchneriella subcapitata  
Chronic toxicity - NOEC fish (mg / l): na  
Chronic toxicity - NOEC (mg / l) crustaceans:  
C(E)L50 (mg/l) = 1480

**Sodium hydroxide:**

Acute toxicity - LC50 fish (mg / l / 96h): 45  
Acute toxicity - crustaceans EC50 (mg / l / 48h): 40  
Acute toxicity algae ErC50 (mg / l / 72-96h): nd  
Chronic toxicity - NOEC fish (mg / l): nd  
Chronic toxicity - crustaceans NOEC (mg / l): nd  
Chronic toxicity NOEC algal (mg / l): nd  
C(E)L50 (mg/l) = 45

**Benzisothiazolinone:**

Acute toxicity - fish LC50 (mg / l / 96h): 2.18 Oncorhynchus mykiss - Method: OECD Test Guideline 203  
Acute toxicity - crustaceans EC50 (mg / l / 48h): 2.94 Daphnia magna - Method test, Directive 92/69 / EEC.  
Acute toxicity ErC50 algae (mg / l / 72-96h): 0.15 Selenastrum capricornutum - Type of test: Growth inhibitor

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Chronic toxicity - NOEC fish (mg / l 28 die): 0.3 Oncorhynchus mykiss - Type of test: Growth inhibitor  
Chronic toxicity - crustaceans NOEC (mg / l / 21d): 1.7 Daphnia magna - Type of test: Reproduction test - Method: OECD TG 211  
Chronic toxicity algae NOEC (mg / l): nd  
Toxicity to organisms soil living EC50 (mg / kg / 14d): > 410.6 Fetid Eisenia Method: OECD TG 207  
Toxicity for living organisms in the soil EC50 (mg / kg / 28d): 263.7 Method: OECD TG 216  
Acute toxicity M-factor = 10

Use according to good working practices and avoid to disperse the product into the environment.

### 12.2. Persistence and degradability

=====

Related to contained substances:

Tetrasodium ethylene diamine tetraacetate:

The EDTA (acid form) and its salts are not readily biodegradable according to the OECD criteria. It has been shown that under special conditions (slightly alkaline adaptation or pH, a realistic condition of water below the environmental surface, the biodegradability of EDTA is considerably. Therefore it can be concluded that EDTA is ultimately biodegradable under such environmental conditions.

2-Butoxyethanol:

Easily biodegradable 90% CO<sub>2</sub> formation of the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69 / EEC, C.4-C) (aerobic, activated sludge)

2,2',2"-nitrilotriethanol:

CO<sub>2</sub> evolution: 100% after 5 days DOC removal: 96% after 19 days easily biodegradable "

Potassium hydroxide:

Potassium hydroxide is not classified for the environmental compartment based on its dissociation in the environment, lack of bioaccumulation and lack of adsorption of particles or surfaces.

diethanolamine:

BOD consumption: 93% after 28 days - easily biodegradable

Sodium hydroxide:

Not applicable

Benzisothiazolinone:

Quickly biodegradable

### 12.3. Bioaccumulative potential

=====

Related to contained substances:

Tetrasodium ethylene diamine tetraacetate:

Not bioaccumulative

2-Butoxyethanol:

Less bioaccumulable

2,2',2"-nitrilotriethanol:

Bioaccumulative potential bioaccumulation potential (LogKow); -1,94 Bioaccumulation Potential (BCF): <0.4

Potassium hydroxide:

Potassium hydroxide is a strong alkaline substance that completely dissociates in water to K<sup>+</sup> and OH<sup>-</sup>. Considering its

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high solubility in water, potassium hydroxide is not expected to be bioconcentric in organisms. Log Pow is not applicable for an inorganic compound that dissociates.

diethanolamine:

Based on the n-octanol / water partition coefficient (log Pow), no accumulation is expected in the organisms.

Sodium hydroxide:

Not bioaccumulative

Benzisothiazolinone:

Unlikely bioaccumulation

#### 12.4. Mobility in soil

Related to contained substances:

Tetrasodium ethylene diamine tetraacetate:

Due to the ionic structure, no adsorption on the organic fraction of the soil or sediments is expected for EDTA (acid form) and its salt. The test substance will not evaporate from the surface of the water in the atmosphere. The test substance will preferably be distributed in the compartment water.

2-Butoxyethanol:

High mobility potential

2,2',2''-nitrilotriethanol:

Constant of Henry Law (H):  $7.19 \cdot 10^{-9} \text{ Pa} \cdot \text{m}^3 / \text{mol}$  Log Koc = 1.24 "

Potassium hydroxide:

According to the REACH regulation, it is not necessary to conduct the study if, based on the properties of the physical, the substance can be expected to have a low adsorption potential (Annex VIII, adaptation of column 2). Potassium hydroxide is very soluble in water and completely dissociates into K<sup>+</sup> and OH<sup>-</sup>. If emitted in surface waters, the absorption of particles and sediments will be negligible

diethanolamine:

The substance does not evaporate in the atmosphere from the surface of the water. Constant Henry Law (H): 0.000004 Pa · m<sup>3</sup> / mol log Koc = -1.14 Solid phase solid phase absorption is not foreseeable

Sodium hydroxide:

Not applicable

Benzisothiazolinone:

Not available

#### 12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

#### 12.6. Other adverse effects

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The (l) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

## **SECTION 13. Disposal considerations**

### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.  
Recover if possible. Operate according to local or national regulations

## **SECTION 14. Transport information**

### **14.1. UN number**

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

### **14.2. UN proper shipping name**

None

### **14.3. Transport hazard class(es)**

None

### **14.4. Packing group**

None

### **14.5. Environmental hazards**

None

### **14.6. Special precautions for user**

No data available.

### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code**

Transport in bulk is not foreseen

## **SECTION 15. Regulatory information**

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable  
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC  
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC  
Reg. EC 648/04: see 2.2  
Reg. (EU) n. 1169/2011: see 2.2  
Reg (UE) 528/2012: see.to 2.2

REGULATION (EU) No 1357/2014 - waste:  
HP4 - Irritant — skin irritation and eye damage

### 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

## SECTION 16. Other information

### 16.1. Other information

Points modified compared to previous release: 2.2. Label elements

Description of hazard statements set out in paragraph 3

H302 = Harmful if swallowed.

H318 = Causes serious eye damage.

H332 = Harmful if inhaled.

H373 = May cause damage to organs through prolonged or repeated exposure .

H312 = Harmful in contact with skin.

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

H317 = May cause an allergic skin reaction.

H400 = Very toxic to aquatic life.

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Regulation (UE) 528/2012 (Biocides) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008):

Physical hazards: On the basis of experimental data

Other hazards: Calculation Method

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: BioconCentration Factor

BOD: Biochemical Oxigen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified

Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Environment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

References and Sources:

- ECHA Registered Substances:
- <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: Label elements, exposure scenario updating, attached worinking instruction scenario

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**SUMI****Safe Use of Mixtures Information****AISE\_SUMI\_IS\_4\_1***Version 1.1, August 2018****Industrial uses; Automated task; Semi-automated task; Dedicated equipment***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE\_SWED\_IS\_4\_1**.

**Operational Conditions**

<b>Maximum duration</b>	480 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters.
	<b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

**Disclaimer**

*This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.*

*If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.*

*Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.*

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**SUMI****Safe Use of Mixtures Information****AISE\_SUMI\_IS\_7\_5***Version 1.1, August 2018****Industrial spraying; Automated task; Open system; Long term***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

The SUMI applies to industrial spraying products. This Safe Use Information is based on the AISE\_SWED\_IS\_7\_5.

**Operational Conditions**

<b>Maximum duration</b>	480 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	See section 8 of the SDS of this product for specifications. Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters. <b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

**Disclaimer**

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*Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.*

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**SUMI****Safe Use of Mixtures Information****AISE\_SUMI\_IS\_8b\_1***Version 1.1, August 2018****Transfer and dilution of concentrated product by using dedicated dosing system***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*


**General description of the process covered**

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the **AISE\_SWED\_IS\_8b\_1\_L** and **AISE\_SWED\_IS\_8b\_1\_S**

**Operational Conditions**

<b>Maximum duration</b>	60 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	Wear suitable gloves. See section 8 of the SDS of this product for specifications.
	 Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters.
	<b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

### Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

### Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

### Disclaimer

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**SUMI****Safe Use of Mixtures Information****AISE\_SUMI\_IS\_13\_4***Version 1.1, August 2018****Industrial uses; Treatment of articles by dipping or pouring***

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.*

**General description of the process covered**

This SUMI applies to industrial uses where articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE\_SWED\_IS\_13\_4**.


**Operational Conditions**

<b>Maximum duration</b>	480 minutes per day.
<b>Range of application / Process conditions</b>	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
<b>Air exchange rate</b>	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

**Risk Management Measures**

<b>Measures related to personal protective equipment (PPE), hygiene and health evaluation</b>	See section 8 of the SDS of this product for specifications. Training of workers in relation to proper use and maintenance of PPEs must be ensured.
<b>Environmental measures</b>	Prevent that undiluted product reaches surface waters. <b>If appropriate AISE SPERC 8a.1.a.v2 may apply:</b> wide dispersive use resulting in release to municipal sewage treatment plant.

**Additional good practice advice**

<p><b>Don't eat or drink.</b>  <b>Don't smoke.</b>  <b>Don't use in proximity of open flame.</b></p>	
<p><b>Wash hands after use.</b>  <b>Avoid contact with damaged skin.</b>  <b>Do not mix with other products.</b></p>	
<p><b>Spillage instructions</b></p>	<p>Dilute with fresh water and mop up.</p>
<p><b>Hygiene practices</b></p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

**Additional information depending on product composition**

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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# WORKING ISTRUCTION TABLE



This tab provides instructions for appropriate and safe use of products and proper management of emergency situations for cleaning staff/users.

Attached to MSDS rel#6 del 07/21/20

Use description	Use in batch and other process (synthesis) where opportunity for exposure arises [PROC4]; Industrial spraying [PROC7]; Transfer of substance or mixture (charging and discharging) at dedicated facilities [PROC8b]; Treatment of articles by dipping and pouring [PROC13]
Product name	<b>ABILUBE</b>
Classification of the product (100%)	H315- Causes skin irritation. H318 - Causes serious eye damage. EUH208 - Contains preservatives: Benzisothiazolinone. May produce an allergic reaction
Classification of the diluted product (maximum use concentration)	At maximux concentration of use (3%) the product is classified: not dangerous according to the regulation (CE) N. 1272/2008
Handling of the product (100%)	Avoid contact and inhalation of vapors Wear protective gloves and eye/face protection At work do not eat or drink.
Handling of the diluted product	At work do not eat or drink.
DPI required concentrated product (racking, concentrated use, spillage...)	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)
Diluted product	No DPI required for the intended uses

In case of emergency (accidents involving exposure to the product)	Immediately inform the customer. Immediately inform the employer. Contact Poisons Centres tel. number in 1.4 section of the MSDS
Accidental release large quantities measures: concentrated product	Wear gloves, glasses and protective clothing (for specifications refer to section 8.2. SDS) Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved
Diluted product	Wash with water the area and materials involved
Storage of the product	Keep in original container closed tightly. Do not store in open or unlabelled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool and dry place, away from heat sources and direct exposure to sunlight.
In case of accidents, emergency or fire	Immediately inform the customer. Follow company emergency instruction.