

SAFOL 23 E-7

Version: 10.01

Revision Date 12.06.2019

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

| | |
|-------------------------------------|--|
| Trade name | SAFOL 23 E-7 |
| Substance name (REACH / CLP) | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO) (CAS: 160901-19-9) |

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

| | |
|-----------------------------|----------------|
| Use | Industrial use |
| Uses advised against | |

1.3 Details of the supplier of the safety data sheet

| | |
|--------------------------------------|--|
| Company | Sloveca, Sasol Slovakia, spol. s r.o. Mostová 2 811 02 Bratislava Slovak Republic Telephone: +421 2 54430219 Telefax: +421 2 54430315 |
| Information (Product safety): | Telephone: +421 46 546 1204 Telefax: +421 46 546 1144 |
| E-mail address | msds-info.italy@it.sasol.com |

1.4 Emergency telephone number

| | |
|-----------------------------------|--|
| Emergency telephone number | +421 902 899981; +421 25 477 4166 National Toxicological Information Centre (24 hours) |
|-----------------------------------|--|

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|--|
| Acute toxicity Category 4 (Oral) | Harmful if swallowed. |
| Serious eye damage Category 1 | Causes serious eye damage. |
| Long-term (chronic) aquatic hazard Category 3 | Harmful to aquatic life with long lasting effects. |

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)****Hazard pictograms**

| | |
|--------------------|--------|
| Signal word | Danger |
|--------------------|--------|

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Hazard statements

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

| | |
|---------------------------|---|
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear eye protection/ face protection. |
| P305 + P351 + P338 + P310 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

Remarks on classification and labelling

The surfactant(s) contained in this product is (are) classified according to CESIO recommendations.

2.3 Other hazards

Danger of slipping after spill or leakage.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

Alcohols, C12-13- branched and linear, ethoxylated (>= 2.5 EO)

content: >= 90 - <= 100 %

component type: Active ingredient

EC-No.: 931-954-4

Index-No.:

CAS-No.: 160901-19-9

REACH No.: Not relevant (polymer)

Substance name (REACH / CLP): Alcohols, C12-13- branched and linear, ethoxylated (>= 2.5 EO) (CAS: 160901-19-9)

Classification (Regulation (EC) No 1272/2008):

| | | |
|-----------------|----------|------|
| Acute Tox. | 4 (Oral) | H302 |
| Eye Dam. | 1 | H318 |
| Aquatic Chronic | 3 | H412 |

Specific Concentration Limits (see section 11)

| | |
|------------|-----------------------------|
| > 10 % | Eye Dam. Category 1; H318 |
| > 1 - 10 % | Eye Irrit. Category 2; H319 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

Other data

Synonyms: Alcohols, C10-16, ethoxylated; CAS-No.: 68002-97-1

SECTION 4: FIRST AID MEASURES

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4.1 Description of first aid measures

| | |
|--------------------------------|--|
| General advice | If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately. |
| If inhaled | Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician. |
| In case of skin contact | Wash off immediately with plenty of water. Consult a physician if necessary. |
| In case of eye contact | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| If swallowed | Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|--|---|
| Most important symptoms and effects, both acute and delayed | Symptoms: No information available. Risks: No information available. |
|--|---|

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---|--------------------------------------|
| Indication of any immediate medical attention and special treatment needed | Treatment: No information available. |
|---|--------------------------------------|

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

| | |
|-------------------------------------|---|
| Suitable extinguishing media | Water spray, Dry powder, Foam, Carbon dioxide (CO2) |
|-------------------------------------|---|

5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| Specific hazards during firefighting | Dangerous gases or fumes may occur in case of fire. |
|---|---|

5.3 Advice for firefighters

| | |
|--|--|
| Special protective equipment for firefighters | Wear self-contained breathing apparatus for firefighting if necessary. |
| Further information | Standard procedure for chemical fires. |

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

| | |
|-----------------------------|------------------------------------|
| Personal precautions | Use personal protective equipment. |
|-----------------------------|------------------------------------|

6.2 Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. |
|----------------------------------|---|

6.3 Methods and materials for containment and cleaning up

| | |
|--------------------------------|---|
| Methods for cleaning up | Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with |
|--------------------------------|---|

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regulations.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

| | |
|--|--|
| Advice on safe handling | Wear personal protective equipment. Avoid contact with skin and eyes. |
| Advice on protection against fire and explosion | Normal measures for preventive fire protection. Do not spray on a naked flame or any incandescent material. |
| Fire-fighting class | B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures. |

7.2 Conditions for safe storage, including any incompatibilities

| | |
|--|--|
| Requirements for storage areas and containers | Keep tightly closed in a dry and cool place. |
| Storage class (TRGS 510) | 10: Combustible liquids |
| Other data | Stable at normal ambient temperature and pressure. |

7.3 Specific end use(s)

| | |
|------------------------|------------------------------------|
| Specific use(s) | This information is not available. |
|------------------------|------------------------------------|

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS****National occupational exposure limits**

No data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

DERIVED NO EFFECT LEVEL (DNEL)**Substance name: Alcohols, C12-13- branched and linear, ethoxylated (>= 2.5 EO) (CAS: 160901-19-9)**

No data available

PREDICTED NO EFFECT CONCENTRATION (PNEC)**Substance name: Alcohols, C12-13- branched and linear, ethoxylated (>= 2.5 EO) (CAS: 160901-19-9)**

No data available

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8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

| | |
|---------------------------------|---|
| Respiratory protection | No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141. |
| Hand protection | <p>The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).</p> <p>gloves suitable for permanent contact: Material: butyl-rubber Break through time: >= 480 min Layer thickness: >= 0,7 mm</p> <p>gloves suitable for splash protection: Material: Nitrile rubber/nitrile latex Break through time: >= 30 min Layer thickness: >= 0,4 mm</p> |
| Eye protection | Tightly fitting safety goggles, Safety glasses with side-shields |
| Skin and body protection | Wear suitable protective equipment. |
| Hygiene measures | Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. |
| Protective measures | Avoid contact with the skin and the eyes. Wear suitable gloves and eye/face protection. |

ENVIRONMENTAL EXPOSURE CONTROLS

| | |
|-----------------------|---|
| General advice | Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. |
|-----------------------|---|

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | liquid; 20 °C; 1.013 hPa |
| Form | liquid |
| Colour | cloudy |

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| | |
|---|--|
| Odour | characteristic |
| Odour Threshold | No valid method available |
| pH | 5 - 7; 50 g/l; 20 °C; STN EN 1262 |
| Pour point | ca. 10 °C; 1,013 hPa; STN 65 6072 |
| Boiling point/boiling range | No data available |
| Flash point | ca. 180 °C; 1.013 hPa; ASTM D 93 |
| Evaporation rate | No data available |
| Flammability (solid, gas) | not applicable (liquid) |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Vapour pressure | No data available |
| Relative vapour density | > 1 |
| Density | ca.0,977 g/cm ³ ; 40 °C; 1.013 hPa; STN 650 342 |
| Relative density | No data available |
| Water solubility | 20 °C; 1.013 hPa; dispersible |
| Partition coefficient: n-octanol/water | Not applicable Justification: surface-active substance |
| Ignition temperature | No data available |
| Auto-ignition temperature | not auto-flammable |
| Viscosity, dynamic | ca. 30,0 mPas; 40 °C; ASTM D 7042 |
| Viscosity, kinematic | ca. 30,7 mm ² /s; 40 °C; (calculated) |
| Explosive properties | not expected based on structure and functional groups |
| Oxidizing properties | not expected based on structure and functional groups |

9.2 Other data

None known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note Stable at normal ambient temperature and pressure.

10.2 Chemical stability

Note No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions None known.

10.4 Conditions to avoid

Conditions to avoid Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

10.5 Incompatible materials to avoid

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Materials to avoid Strong acids and oxidizing agents;

10.6 Hazardous decomposition products

Hazardous decomposition products No decomposition if stored and applied as directed.

Thermal decomposition Hazardous decomposition products formed under fire conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
LD50 Rat: > 300 - 2.000 mg/kg
Category approach
own test results/literature values
Harmful if swallowed.

Acute inhalation toxicity Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
No data available

Acute dermal toxicity Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
LD50 Rabbit: > 2.000 mg/kg;
Category approach
(literature value)
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Skin irritation Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Rabbit: not irritating
own test results/literature values
Category approach
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Eye irritation Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Rabbit: Irreversible effects on the eye
own test results/literature values
Category approach
Causes serious eye damage.

Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Category approach
Test substance: 10% dilution
Causes serious eye irritation.

Respiratory or skin sensitisation

Sensitisation Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Maximisation Test Guinea pig: not sensitizing
Category approach
(literature value)
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
In vitro tests did not show mutagenic effects
Category approach

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| | |
|---|--|
| | own test results/literature values |
| Genotoxicity in vivo | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): In vivo tests did not show mutagenic effects Category approach (literature value) |
| Remarks | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Based on available data, the classification criteria are not met. |
| Carcinogenicity | |
| Carcinogenicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential. Category approach (literature value) |
| Remarks | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Based on available data, the classification criteria are not met. |
| Reproductive toxicity | |
| Reproductive toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): No toxicity to reproduction Category approach (literature value) |
| RemarksReproductive toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Based on available data, the classification criteria are not met. |
| Teratogenicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Did not show teratogenic effects in animal experiments. Category approach (literature value) |
| Remarks-Teratogenicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Based on available data, the classification criteria are not met. |
| STOT - single exposure | |
| Remarks | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): The substance or mixture is not classified as specific target organ toxicant, single exposure. |
| STOT - repeated exposure | |
| Remarks | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): The substance or mixture is not classified as specific target organ toxicant, repeated exposure. |
| Repeated dose toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Rat; Oral; 2 years NOAEL: 50 mg/kg (based on body weight and day) Target Organs: Heart, Liver, Kidney Symptoms: reduced body weight gain, increased relative organ weights Category approach (literature value) |
| Aspiration hazard | |
| Aspiration toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Not applicable |

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

| | |
|---|--|
| Toxicity to fish | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): LC50 (96 h) <i>Poecilia reticulata</i> (guppy): $> 1 - 10$ mg/l; semi-static test; OECD Test Guideline 203 own test results/literature values Category approach |
| Toxicity to fish - Chronic toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): EC10 <i>Pimephales promelas</i> (fathead minnow): $> 0,1 - 1$ mg/l; mortality own test results/literature values Category approach |
| Toxicity to daphnia and other aquatic invertebrates | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): EC50 (48 h) <i>Daphnia magna</i> (Water flea): $> 1 - 10$ mg/l; static test; OECD Test Guideline 202 own test results/literature values Category approach |
| Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): EC10 <i>Daphnia magna</i> (Water flea): $> 0,1 - 1$ mg/l; Reproduction Test; OECD Test Guideline 211; own test results/literature values Category approach |
| Toxicity to aquatic plants | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): EC50 (72 h) <i>Desmodesmus subspicatus</i> (green algae): $> 1 - 10$ mg/l; Growth rate; static test; OECD Test Guideline 201; own test results/literature values Category approach Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): NOEC (72 h) <i>Desmodesmus subspicatus</i> (green algae): $> 1 - 10$ mg/l; Growth rate; static test; OECD Test Guideline 201; own test results/literature values Category approach |
| Toxicity to bacteria | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): EC50 activated sludge: 140 mg/l; Respiration inhibition Category approach (literature value) |
| Toxicity to soil dwelling organisms | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): NOEC <i>Eisenia foetida</i> : 220 mg/kg; reproduction rate; artificial soil Category approach (literature value) |
| Toxicity to terrestrial flora | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): emergence, growth; NOEC: 10 mg/kg; <i>Lepidium sativum</i> (cress); OECD Test Guideline 208 Category approach (literature value) |
| Toxicity for other terrestrial non-mammalian fauna | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): No data available |

12.2 Persistence and degradability

| | |
|-------------------------|--|
| Biodegradability | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B own test results/literature values Category approach Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Biodegradable; > 60 %; 69 d; anaerobic; OECD 311 or equivalent test method |
|-------------------------|--|

12.3 Bioaccumulative potential

| | |
|------------------------|--|
| Bioaccumulation | Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO): Bioaccumulation is unlikely. (literature value) |
|------------------------|--|

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12.4 Mobility in soil

Mobility Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Adsorption/Soil; Koc: > 5000 ; QSAR
(literature value)
immobile

12.5 Results of PBT and vPvB assessment

Results of PBT assessment Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

General advice Alcohols, C12-13- branched and linear, ethoxylated (≥ 2.5 EO):
Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Can be incinerated, when in compliance with local regulations.

waste code of the European Union: EWC A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose. The waste code must be determined in agreement with the regional waste disposal authority or company.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.2 Proper shipping name

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.3 Transport hazard class

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods

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ICAO/IATA Not dangerous goods

14.4 Packing group

ADR Not dangerous goods
 RID Not dangerous goods
 ADN Not dangerous goods
 IMDG Not dangerous goods
 ICAO/IATA Not dangerous goods

14.5 Environmental hazards

| | | |
|-----------|---------------------------|----|
| ADR | Environmentally hazardous | no |
| RID | Environmentally hazardous | no |
| ADN | Environmentally hazardous | no |
| IMDG | Marine pollutant | no |
| ICAO/IATA | Environmentally hazardous | no |

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

| | |
|--------------------|---|
| Ship type | 2 |
| Pollution category | Y |
| Remarks | MARPOL NAME: Alcohol (C12–C16) poly(7-19) ethoxylates |

SECTION 15: REGULATORY INFORMATION

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

Occupational restrictions Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.

NATIONAL/OTHER REGULATIONS

Legislation on the control of major-accident hazards involving dangerous substances Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
 list entry in the directive: Not applicable

Water contaminating class (Germany) WGK 2: obviously hazardous to water

Other regulations This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

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NOTIFICATION STATUS

| | | |
|--|------------|---|
| Switzerland. Consolidated Inventory | CH INV | listed (product or constituents are listed) |
| US. Toxic Substances Control Act | TSCA | listed (product or constituents are listed) |
| Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) | DSL | listed (product or constituents are listed) |
| Australia. Industrial Chemical (Notification and Assessment) Act | AICS | listed (product or constituents are listed) |
| Japan. Kashin-Hou Law List | ENCS (JP) | listed (product or constituents are listed) |
| Japan. Industrial Safety & Health Law (ISHL) List | ISHL (JP) | listed (product or constituents are listed) |
| Korea. Existing Chemicals Inventory (KECI) | KECI (KR) | listed (product or constituents are listed) |
| Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act | PICCS (PH) | listed (product or constituents are listed) |
| China. Inventory of Existing Chemical Substances (IECSC) | INV (CN) | listed (product or constituents are listed) |

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment**Alcohols, C12-13- branched and linear, ethoxylated (>= 2.5 EO) (CAS: 160901-19-9)**

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

SECTION 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3.**

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

Safety datasheet sections which have been updated:

- 15. Regulatory information
- 16. Other information

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any

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other materials or in any process, unless specified in the text.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

| | |
|-----------|---|
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| AICS | Australian Inventory of Chemical Substances |
| ANSI | American National Standards Institute |
| ASTM | American Society of Testing and Materials (US) |
| BCF | Bioconcentration factor |
| CLP | Regulation on Classification, Labelling and Packaging of Substances and Mixtures |
| DIN | Deutsches Institut für Normung |
| DNEL | Derived No-Effect Level |
| DSL | Domestic Substances List |
| EC... | Effect concentration ... % |
| ENCS | Existing Notified Chemical Substances (Japan) |
| EWC | European Waste Catalogue |
| IATA | International Air Transport Association |
| IBC | Intermediate Bulk Container |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| ISHL | Industrial Safety and Health Law (Japan) |
| ISO | International Organization for Standardization |
| IUAPC | International Union of Pure and Applied Chemistry |
| KECI | Korea Existing Chemicals Inventory |
| LC... | Lethal Concentration, ...% |
| LD... | Lethal Dose, ...% |
| MARPOL | International Convention for the Prevention of Pollution From Ships |
| NDSL | Non-Domestic Substances List |
| NOAEL | no observable adverse effect level |
| NOEL/NOEC | No Observed-effect level/concentration |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | persistent, bioaccumulative, toxic |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport international ferroviaire de marchandises dangereuses |
| TG | Test Guideline |
| TRGS | Technische Regeln für Gefahrstoffe |
| TSCA | Toxic Substances Control Act |
| vPvB | very persistent, very bioaccumulative |
| WGK | Wassergefährdungsklasse |