



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

1.1 Product identifier

Trade name : Sikaflex®-223

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

Product use : Sealant/adhesive, Product is not intended for consumer use

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika Österreich GmbH
Bingser Dorfstraße 23
6700 Bludenz
Telephone : +43 5 0610 0
E-mail address of person : EHS@at.sika.com
responsible for the SDS

1.4 Emergency telephone number

0043 1 4064343 (Giftinformationszentrale Wien)

SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

| | | | |
|--------------------------|---|---|--|
| Hazard pictograms | : |  | |
| Signal word | : | Warning | |
| Hazard statements | : | H317 H412 | May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. |
| Precautionary statements | : | Prevention: P261 P273 P280 | Avoid breathing mist or vapours. Avoid release to the environment. Wear protective gloves. |



Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

Hazardous components which must be listed on the label:

bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexane-1,2-diylbiscarbamate
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
2,2-bis(acryloyloxymethyl)butyl acrylate
Pentamethyl piperidylsebacate

Additional Labelling

EUH204 Contains isocyanates. May produce an allergic reaction.
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

"As from 24 August 2023 adequate training is required before industrial or professional use."

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

| Chemical name | CAS-No. EC-No. Registration number | Classification | Concentration (% w/w) |
|--|--|--|--------------------------|
| 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate | 4098-71-9 223-861-6 01-2119490408-31-XXXX | Acute Tox. 1; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) Aquatic Chronic 2; H411 specific concentration limit Resp. Sens. 1; H334 >= 0,5 % Skin Sens. 1; H317 >= 0,5 % | >= 0,25 - < 0,5 |
| titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] | 13463-67-7 236-675-5 01-2119489379-17-XXXX | Carc. 2; H351 | >= 5 - < 10 |
| Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl- | 77703-56-1 416-600-4 01-0000016345-72-XXXX | Aquatic Chronic 4; H413 | >= 2,5 - < 5 |
| bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexane-1,2-diylbiscarbamate | 59719-67-4 261-879-6 01-2119983487-19-XXXX | Eye Irrit. 2; H319 Skin Sens. 1B; H317 Aquatic Chronic 2; H411 | >= 2,5 - < 5 |



| | | | |
|--|--|--|-----------------|
| 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate | 4098-71-9 223-861-6 01-2119490408-31-XXXX | Acute Tox. 1; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) Aquatic Chronic 2; H411 specific concentration limit Resp. Sens. 1; H334 >= 0,5 % Skin Sens. 1; H317 >= 0,5 % | >= 0,25 - < 0,5 |
| 2,2-bis(acryloyloxymethyl)butyl acrylate | 15625-89-5 239-701-3 01-2119489896-11-XXXX | Aquatic Chronic 1; H410 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 | >= 0,25 - < 1 |
| Pentamethyl piperidylsebacate Contains: bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | 1065336-91-5 915-687-0 01-2119491304-40-XXXX | Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 | >= 0,1 - < 0,25 |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.



- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Allergic reactions
See Section 11 for more detailed information on health effects and symptoms.
- Risks : sensitising effects

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- 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.
Deny access to unprotected persons.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material 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).
Keep in suitable, closed containers for disposal.

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 : Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

Storage class (TRGS 510) : 10, Combustible liquids



Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Consult most current local Product Data Sheet prior to any use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters * | Basis * |
|--|---|----------------------------------|--------------------------------------|---------|
| titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] | 13463-67-7 | MAK-TMW (Alveolar dust fraction) | 5 mg/m ³ | AT OEL |
| | | MAK-KZW (Alveolar dust fraction) | 10 mg/m ³ | AT OEL |
| 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate | 4098-71-9 | MAK-KZW | 0,01 ppm 0,092 mg/m ³ | AT OEL |
| | Further information: Danger of sensitization of the respiratory system and the skin | | | |
| | | MAK-TMW | 0,005 ppm 0,046 mg/m ³ | AT OEL |

*Values in the table refer to the latest EU-OEL and to the (Grenzwertverordnung GKV).

Biological occupational exposure limits

| Substance name | CAS-No. | Control parameters | Sampling time | Basis |
|---|-----------|---|--|---------|
| 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate | 4098-71-9 | 4,4'-diaminodiphenylmethane (Isocyanates): 10 µg/g creatinine (Urine) | At the end of a work week / at the end of a work day / at the end of a shift | VGÜ2014 |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|-----------|-----------------|----------------------------|------------------------|
| bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl]hexane-1,2-diylbiscarbamate | Workers | Inhalation | Long-term systemic effects | 29,4 mg/m ³ |
| | Workers | Skin contact | Long-term systemic effects | 16,7 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 6,25 mg/m ³ |
| | Consumers | Skin contact | Long-term systemic effects | 8,3 mg/kg |
| | Consumers | Ingestion | Long-term systemic effects | 4,2 mg/kg |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|-----------------------------|---------------------------|-------------|
| bis[2-[2-(1-methylethyl)-3- | Fresh water | 0,0186 mg/l |



| | | |
|---|----------------------|--------------|
| oxazolidinyl]ethyl] hexane-1,2-diylbiscarbamate | | |
| | Marine water | 0,00186 mg/l |
| | Fresh water sediment | 0,709 mg/kg |
| | Marine sediment | 0,0709 mg/kg |
| | Soil | 1,131 mg/kg |

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.
 Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Eye protection : Safety glasses with side-shields conforming to EN166
 Eye wash bottle with pure water
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:
 Butyl rubber/nitrile rubber gloves (> 0,1 mm)
 Contaminated gloves should be removed.
 Suitable for permanent exposure:
 Viton gloves (0.4 mm),
 breakthrough time >30 min.

- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
 organic vapor filter (Type A)
 A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
 Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

Environmental exposure controls

- General advice : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties



| | | |
|-----------------------------|---|---|
| Physical state | : | liquid |
| Appearance | : | paste |
| Colour | : | various |
| Odour | : | slight |
| Boiling point/boiling range | : | No data available |
| Flash point | : | > 101 °C Method: closed cup |
| Auto-ignition temperature | : | No data available |
| pH | : | Not applicable substance/mixture is non-soluble (in water) |

Viscosity

Viscosity, kinematic : > 20,5 mm²/s (40 °C)

Solubility(ies)

Water solubility : insoluble

Vapour pressure : 0,01 hPa

Density : ca. 1,23 g/cm³ (20 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : Avoid moisture.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.



SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Components:

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:

Acute oral toxicity : LD50 Oral (Rat): 4.814 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,031 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 7.000 mg/kg

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402

bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexane-1,2-diylbiscarbamate:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:

Acute oral toxicity : LD50 Oral (Rat): 4.814 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,031 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 7.000 mg/kg

2,2-bis(acryloyloxymethyl)butyl acrylate:

Acute oral toxicity : LD50 Oral (Rat): 3.680 - 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

Pentamethyl piperidylsebacate:

Acute oral toxicity : LD50 Oral (Rat): 3.230 mg/kg



Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 250 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l



aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l
Exposure time: 72 h

bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexane-1,2-diylbiscarbamate:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 87,1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Scenedesmus capricornutum (fresh water algae)): 18,6 mg/l
Exposure time: 72 h

2,2-bis(acryloyloxymethyl)butyl acrylate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,87 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

Pentamethyl piperidylsebacate:

Toxicity to fish : LC50 (Fish): 0,97 mg/l
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..



12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Austria - Waste catalogue : 55907

Contaminated packaging : Completely emptied packagings can be given for recycling. Packaging containing remains of dangerous substances, as well as packagings disposed of remains can be unharmed eliminated in accordance with the regulations.

15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good



IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 3

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
(Number on list 74)
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich
(Number on list 52)

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

REACH - Candidate List of Substances of Very High : None of the components are listed
(=> 0.1 %).



Concern for Authorisation (Article 59).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH Information: All substances contained in our Products are
- registered by our upstream suppliers, and/or
- registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Risk classification according to VbF : Exempt

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

Water hazard class (Germany) : WGK 2 obviously hazardous to water
Classification according to AwSV, Annex 1 (5.2)

Volatile organic compounds : Law on the incentive tax for volatile organic compounds (VOCV)
Volatile organic compounds (VOC) content: 1,01% w/w
no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 1,05% w/w

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

- H315 : Causes skin irritation.
- H317 : May cause an allergic skin reaction.
- H319 : Causes serious eye irritation.
- H330 : Fatal if inhaled.
- H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 : May cause respiratory irritation.



- H351 : Suspected of causing cancer if inhaled.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.
H413 : May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

- Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Carc. : Carcinogenicity
Eye Irrit. : Eye irritation
Resp. Sens. : Respiratory sensitisation
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
AT OEL : Austria. Limit values regulation - Annex I: Substance list
VGÜ2014 : Austria. Regulation on health surveillance in the workplace 2014

AT OEL / MAK-TMW : Time Weighted Average
AT OEL / MAK-KZW : Short Term Exposure Limit
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS : Chemical Abstracts Service
DNEL : Derived no-effect level
EC50 : Half maximal effective concentration
GHS : Globally Harmonized System
IATA : International Air Transport Association
IMDG : International Maritime Code for Dangerous Goods
LD50 : Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)

LC50 : Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)

MARPOL : International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978

OEL : Occupational Exposure Limit
PBT : Persistent, bioaccumulative and toxic
PNEC : Predicted no effect concentration
REACH : Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency

SVHC : Substances of Very High Concern
vPvB : Very persistent and very bioaccumulative

Further information

Classification of the mixture:

- Skin Sens. 1 H317
Aquatic Chronic 3 H412

Classification procedure:

- Calculation method
Calculation method



The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.



Changes as compared to previous version !

AT / EN