# SikaBiresin® CH190-4 (B)



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

### 1.1 Product identifier

Trade name : SikaBiresin® CH190-4 (B)

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

Product use : Composites system, Product is not intended for consumer use

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

| | | |
|---|---|---|
| Company name of supplier | : | Sika Limited<br>Watchmead Welwyn Garden City<br>Hertfordshire. AL7 1BQ |
| Telephone | : | +44 (0)1707 394444 |
| Telefax | : | +44 (0)1707 329129 |
| E-mail address of person responsible for the SDS | : | EHS@uk.sika.com |

### 1.4 Emergency telephone number

National Chemical Emergency Centre (NCEC)
24 Hour Emergency Telephone Number +44 870 190 6777

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|---|
| Acute toxicity, Category 4 | H302: Harmful if swallowed. |
| Acute toxicity, Category 4 | H332: Harmful if inhaled. |
| Acute toxicity, Category 3 | H311: Toxic in contact with skin. |
| Skin corrosion, Category 1 | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |
| Skin sensitisation, Category 1 | H317: May cause an allergic skin reaction. |
| Specific target organ toxicity - repeated exposure, Category 2 | H373: May cause damage to organs through prolonged or repeated exposure. |
| Short-term (acute) aquatic hazard, Category 1 | H400: Very toxic to aquatic life. |
| Long-term (chronic) aquatic hazard, Category 1 | H410: Very toxic to aquatic life with long lasting effects. |

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :

Signal word : Danger

Hazard statements :

| | |
|---|---|
| H302 + H332 | Harmful if swallowed or if inhaled. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary statements :

**Prevention:**

| | |
|---|---|
| P260 | Do not breathe mist or vapours. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

**Response:**

| | |
|---|---|
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. |
| 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. |
| P391 | Collect spillage. |

**Hazardous components which must be listed on the label:**

diethylmethylbenzenediamine
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)
3-aminomethyl-3,5,5-trimethylcyclohexylamine

### 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.<br>EC-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| diethylmethylbenzenediamine | 68479-98-1<br>270-877-4<br>01-2119486805-25-XXXX | Acute Tox. 4; H302<br>Acute Tox. 4; H312<br>Eye Irrit. 2; H319<br>STOT RE 2; H373<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br><br>Acute toxicity estimate<br><br>Acute oral toxicity: 738 mg/kg | >= 25 - < 40 |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) | 6864-37-5<br>229-962-1<br>01-2119497829-12-XXXX | STOT RE 2; H373 (Blood, Liver, Kidney, Heart, Adrenal gland)<br>Acute Tox. 4; H302<br>Acute Tox. 2; H330<br>Acute Tox. 3; H311<br>Skin Corr. 1A; H314<br>Eye Dam. 1; H318<br>Aquatic Chronic 2; H411<br><br>Acute toxicity estimate<br><br>Acute oral toxicity: 320 mg/kg<br>Acute inhalation toxicity (dust/mist): 0,42 mg/l<br>Acute dermal toxicity: 201 mg/kg | >= 25 - < 40 |

| | | | |
|---|---|---|---|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2<br>220-666-8<br>01-2119514687-32-XXXX | Acute Tox. 4; H302<br>Skin Corr. 1B; H314<br>Eye Dam. 1; H318<br>Skin Sens. 1A; H317<br>---<br>specific concentration limit<br>Skin Sens. 1A; H317<br>>= 0,001 %<br>---<br>Acute toxicity estimate<br><br>Acute oral toxicity: 1.030 mg/kg | >= 20 - < 25 |
| salicylic acid | 69-72-7<br>200-712-3<br>01-2119486984-17-XXXX | Acute Tox. 4; H302<br>Eye Dam. 1; H318<br>Repr. 2; H361d<br>---<br>Acute toxicity estimate<br><br>Acute oral toxicity: 891 mg/kg | >= 1 - < 2,5 |

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.
Symptoms of poisoning may appear several hours later.

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.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Take victim immediately to hospital.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.

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 : Gastrointestinal discomfort
Respiratory disorder
Allergic reactions
Headache
Dermatitis
Skin disorders
See Section 11 for more detailed information on health effects and symptoms.

Risks : Health injuries may be delayed.
corrosive effects
sensitising effects

Harmful if swallowed or if inhaled.
Toxic in contact with skin.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause damage to organs through prolonged or repeated exposure.
Causes severe burns.

### 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

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion prod- : No hazardous combustion products are known

ucts

### 5.3 Advice for firefighters

| | | |
|---|---|---|
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. |
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |

## SECTION 6: Accidental release measures

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

| | | |
|---|---|---|
| Personal precautions | : | Use personal protective equipment.<br>Deny access to unprotected persons. |

### 6.2 Environmental precautions

| | | |
|---|---|---|
| Environmental precautions | : | Do not flush into surface water or sanitary sewer system.<br>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).<br>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).<br>Do not get in eyes, on skin, or on clothing.<br>For personal protection see section 8.<br>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.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Provide sufficient air exchange and/or exhaust in work rooms.<br>Follow standard hygiene measures when handling chemical |

products

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |
| Hygiene measures | : | Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product. |

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

| | | |
|---|---|---|
| Requirements for storage areas and containers | : | Prevent unauthorized access. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations. |
| 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**

Contains no substances with occupational exposure limit values.

**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<br>Eye wash bottle with pure water<br>Wear eye/face protection. |
| 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.<br><br>Suitable for short time use or protection against splashes:<br>Butyl rubber/nitrile rubber gloves (> 0,1 mm)<br>Contaminated gloves should be removed.<br>Suitable for permanent exposure:<br>Viton gloves (0.4 mm),<br>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 additionaly 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 sufficent to keep the concentrations under the occupational exposure limits then respiration protection measures must be used. Ensure adequate ventilation, especially in confined areas.

**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 |
| Colour | : | amber |
| Odour | : | amine-like |
| Melting point/range / Freezing point | : | No data available |
| Boiling point/boiling range | : | 4 °C |
| Flammability (solid, gas) | : | No data available |

**Upper/lower flammability or explosive limits**

| | | |
|---|---|---|
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Flash point | : | > 100 °C<br>Method: closed cup |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |

| | | |
|---|---|---|
| pH | : | 9 - 12<br>Concentration: 100 % |

**Viscosity**

| | | |
|---|---|---|
| Viscosity, kinematic | : | No data available |

**Solubility(ies)**

| | | |
|---|---|---|
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Vapour pressure | : | 0,02 hPa |
| Density | : | 1,00 g/cm3 (20 °C) |
| Relative vapour density | : | No data available |
| Particle characteristics | : | No data available |

### 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 : Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 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**

Harmful if swallowed or if inhaled.
Toxic in contact with skin.

**Components:**

**diethylmethylbenzenediamine:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 Oral (Rat): 738 mg/kg<br><br>Acute toxicity estimate: 738 mg/kg<br>Method: Calculation method |
| Acute dermal toxicity | : | LD50 Dermal (Rat): 2.500 mg/kg |

**2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 Oral (Rat): 320 - 460 mg/kg<br><br>Acute toxicity estimate: 320 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity | : | LC50 (Rat): 0,42 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br><br>Acute toxicity estimate: 0,42 mg/l<br>Test atmosphere: dust/mist<br>Method: Calculation method |
| Acute dermal toxicity | : | LD50 Dermal (Rabbit): 201 - 400 mg/kg<br><br>Acute toxicity estimate: 201 mg/kg<br>Method: Calculation method |

**3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: 1.030 mg/kg<br>Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008<br><br>LD50 Oral (Rat): 1.030 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat): > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist |
| Acute dermal toxicity | : | LD50 Dermal (Rabbit): > 2.000 mg/kg |

LD50 (Rabbit): > 2.000 - 5.000 mg/kg

**salicylic acid:**

Acute oral toxicity : LD50 Oral (Rat): 891 mg/kg

Acute toxicity estimate: 891 mg/kg
Method: Calculation method

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

**Skin corrosion/irritation**

Causes severe burns.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**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**

May cause damage to organs through prolonged or repeated exposure.

**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:**

**3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l<br>Exposure time: 72 h<br><br>NOEC (Desmodesmus subspicatus (green algae)): 1,5 mg/l<br>Exposure time: 72 h |

### 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.<br>Very toxic 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.<br>Empty containers or liners may retain some product residues.<br>This material and its container must be disposed of in a safe way.<br>Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.<br>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.<br>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. |
| European Waste Catalogue | : | 20 01 27* paint, inks, adhesives and resins containing dangerous substances |
| Contaminated packaging | : | 15 01 10* packaging containing residues of or contaminated by dangerous substances |

## SECTION 14: Transport information

### 14.1 UN number

| | | |
|---|---|---|
| **ADR** | : | UN 2922 |
| **IMDG** | : | UN 2922 |
| **IATA** | : | UN 2922 |

### 14.2 UN proper shipping name

| | | |
|---|---|---|
| **ADR** | : | CORROSIVE LIQUID, TOXIC, N.O.S.<br>(2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)) |
| **IMDG** | : | CORROSIVE LIQUID, TOXIC, N.O.S.<br>(2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)) |
| **IATA** | : | Corrosive liquid, toxic, n.o.s.<br>(2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)) |

### 14.3 Transport hazard class(es)

| | | |
|---|---|---|
| **ADR** | : | 8 |
| **IMDG** | : | 8 |
| **IATA** | : | 8 |

### 14.4 Packing group

**ADR**

| | | |
|---|---|---|
| Packing group | : | II |
| Classification Code | : | CT1 |
| Hazard Identification Number | : | 86 |
| Labels | : | 8 (6.1) |
| Tunnel restriction code | : | (E) |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | II |
| Labels | : | 8 (6.1) |
| EmS Code | : | F-A, S-B |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 855 |
| Packing instruction (LQ) | : | Y840 |
| Packing group | : | II |
| Labels | : | Corrosive, Toxic |

**IATA (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 851 |
| Packing instruction (LQ) | : | Y840 |
| Packing group | : | II |
| Labels | : | Corrosive, Toxic |

### 14.5 Environmental hazards

**ADR**

| | | |
|---|---|---|
| Environmentally hazardous | : | yes |

**IMDG**

| | | |
|---|---|---|
| Marine pollutant | : | yes |

**IATA (Passenger)**

| | | |
|---|---|---|
| Environmentally hazardous | : | yes |

**IATA (Cargo)**

| | | |
|---|---|---|
| Environmentally hazardous | : | yes |

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 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

Relevant EU provisions transposed through retained EU law

| | | |
|---|---|---|
| UK REACH List of restrictions (Annex 17) | : | Conditions of restriction for the following entries should be considered: |
| UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation | : | Not applicable |
| The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) | : | Not applicable |
| International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | : | Not applicable |
| UK REACH List of substances subject to authorisation (Annex XIV) | : | Not applicable |
| GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation | : | Not applicable |

Control of Major Accident Hazards Regulations 2015 (COMAH) E1 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Law on the incentive tax for volatile organic compounds (VOCV)
no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environmental regulation/legislation specific for the substance or mixture: : Environmental Protection Act 1990 & Subsidiary Regulations
Health and Safety at Work Act 1974 & Subsidiary Regulations
Control of Substances Hazardous to Health Regulations (COSHH)
May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

**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**

| | | |
|---|---|---|
| H302 | : | Harmful if swallowed. |
| H311 | : | Toxic in contact with skin. |
| H312 | : | Harmful in contact with skin. |
| H314 | : | Causes severe skin burns and eye damage. |
| H317 | : | May cause an allergic skin reaction. |
| H318 | : | Causes serious eye damage. |
| H319 | : | Causes serious eye irritation. |
| H330 | : | Fatal if inhaled. |
| H361d | : | Suspected of damaging the unborn child. |
| H373 | : | May cause damage to organs through prolonged or repeated exposure. |
| H400 | : | Very toxic to aquatic life. |
| H410 | : | Very toxic to aquatic life with long lasting effects. |
| H411 | : | Toxic to aquatic life with long lasting effects. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Aquatic Acute | : | Short-term (acute) aquatic hazard |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| Eye Dam. | : | Serious eye damage |
| Eye Irrit. | : | Eye irritation |
| Repr. | : | Reproductive toxicity |
| Skin Corr. | : | Skin corrosion |
| Skin Sens. | : | Skin sensitisation |
| STOT RE | : | Specific target organ toxicity - repeated exposure |
| 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 dosis (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 Chemi- |

cals (REACH), establishing a European Chemicals Agency

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

**Further information**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Acute Tox. 4 | H302 | Calculation method |
| Acute Tox. 4 | H332 | Calculation method |
| Acute Tox. 3 | H311 | Calculation method |
| Skin Corr. 1 | H314 | Based on product data or assessment |
| Eye Dam. 1 | H318 | Based on product data or assessment |
| Skin Sens. 1 | H317 | Calculation method |
| STOT RE 2 | H373 | Calculation method |
| Aquatic Acute 1 | H400 | Calculation method |
| Aquatic Chronic 1 | H410 | 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 !

GB / EN