

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

**Trade name** PROMAT CHEMICALS LECKSUCHSPRAY -15°C DVGW - 400 ml  
**Unique formula identifier (UFI)** 4390-T0YP-9008-X4HA

**Article number** 4000 354048

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

**Relevant identified uses** Leak finder  
General use

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

NORDWEST Handel AG  
Robert-Schuman-Straße 17  
44263 Dortmund  
Germany

Telephone: +49 (0)231 2222-3001  
Telefax: +49 (0)231 2222-3099  
e-mail: sdb@nordwest.com  
Website: www.nordwest.com

**e-mail (competent person)** sdb@nordwest.com

**1.4 Emergency telephone number**

| Poison centre |                                                                                                                                                 |                  |                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------|
| Country       | Name                                                                                                                                            | Postal code/city | Telephone                       |
| Austria       | Vergiftungsinformationszentrale (VIZ)                                                                                                           |                  | +43 (0)1 406 43 43              |
| Germany       | Gemeinsamen Giftinformationszentrum (GGIZ) der Laender Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thuringen c/o HELIOS Klinikum Erfurt | 99089 Erfurt     | +49-361-730730                  |
| Switzerland   | Tox Info Suisse                                                                                                                                 |                  | +145, 24h oder +41 44 251 51 51 |

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

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

| Section | Hazard class | Category | Hazard class and category | Hazard statement |
|---------|--------------|----------|---------------------------|------------------|
| 2.3     | aerosols     | 3        | Aerosol 3                 | H229             |

For full text of abbreviations: see SECTION 16.

**2.2 Label elements**

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

**Signal word** warning  
**Pictograms** not required

**Hazard statements**

H229 Pressurised container: May burst if heated.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment**

Does not contain a PBT-/vPvB-substance at a concentration of  $\geq 0,1\%$ .

**Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

| Identifier                                                                              | Name of substance                      | Wt% | Classification acc. to GHS                                                                                             | Pictograms                                                                         | Notes | Specific Conc. Limits |
|-----------------------------------------------------------------------------------------|----------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------|-----------------------|
| CAS No<br>85408-49-7<br><br>EC No<br>938-774-5<br><br>REACH Reg. No<br>01-2119952581-36 | Amines, C12-16-alkyldimethyl, N-oxides | < 1 | Acute Tox. 4 / H302<br>Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 2 / H411 |  |       |                       |

#### Hazardous ingredients, Specific Conc. Limits, M-factors, ATE

| Name of substance                      | Specific Conc. Limits | M-Factors | ATE         | Exposure route |
|----------------------------------------|-----------------------|-----------|-------------|----------------|
| Amines, C12-16-alkyldimethyl, N-oxides | -                     | -         | 1,724 mg/kg | oral           |

#### Remarks

For full text of abbreviations: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

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

#### Following inhalation

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

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

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

#### Following ingestion

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

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

Symptoms and effects are not known to date.

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray, BC-powder

#### Unsuitable extinguishing media

Water jet

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

#### Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

### 5.3 Advice for firefighters

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

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## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Remove persons to safety.

#### For emergency responders

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

### 6.2 Environmental precautions

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

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

#### Advice on how to contain a spill

Covering of drains

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Recommendations

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

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

#### Advice on general occupational hygiene

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

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

#### Managing of associated risks

#### Flammability hazards

Do not spray on an open flame or other ignition source. Protect from sunlight.

#### Control of effects

#### Protect against external exposure, such as

frost

#### Packaging compatibilities

Keep only in original container.

#### Storage class (LGK) TRGS 510

LGK 2 B (aerosol dispensers and lighters)

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values (Workplace Exposure Limits)

this information is not available

| Relevant DNELs of components           |            |          |                       |                                    |                   |                            |
|----------------------------------------|------------|----------|-----------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                      | CAS No     | Endpoint | Threshold level       | Protection goal, route of exposure | Used in           | Exposure time              |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | DNEL     | 11 mg/kg              | human, dermal                      | worker (industry) | chronic - systemic effects |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | DNEL     | 6.2 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |

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| Relevant PNECs of components           |            |          |                 |                       |                              |                              |
|----------------------------------------|------------|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                      | CAS No     | Endpoint | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 0.0335 mg/l     | aquatic organisms     | freshwater                   | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 0.00335 mg/l    | aquatic organisms     | marine water                 | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 24 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 5.24 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 0.524 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 11.1 mg/kg      | aquatic organisms     | water                        | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 1.02 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |
| Amines, C12-16-alkyldimethyl, N-oxides | 85408-49-7 | PNEC     | 0.0335 mg/l     | aquatic organisms     | water                        | intermittent release         |

## 8.2 Exposure controls

### Appropriate engineering controls

General ventilation.

### Individual protection measures (personal protective equipment)



Personal protective equipment shall be used when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

#### Eye/face protection

Use protective eyewear to guard against splash of liquids.

#### Skin protection

##### Hand protection

Wear protective gloves. (Splash protection)

##### Type of material

NR: natural rubber, latex, FKM: fluoro-elastomer

##### Breakthrough times of the glove material

>480 minutes (permeation: level 6)

##### Other protection measures

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

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.  
Full face mask/half mask/quarter mask (EN 136/140).

#### Environmental exposure controls

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                          |                                                       |
|----------------------------------------------------------|-------------------------------------------------------|
| Physical state                                           | aerosol (spray aerosol)                               |
| Colour                                                   | colourless                                            |
| Odour                                                    | characteristic                                        |
| Melting point/freezing point                             | <-20 °C at 101.3 Pa                                   |
| Boiling point or initial boiling point and boiling range | 100 °C at 1.013 bar                                   |
| Flammability                                             | non-flammable aerosol in accordance with GHS criteria |
| Lower and upper explosion limit                          | not determined                                        |
| Flash point                                              | not determined                                        |

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**Auto-ignition temperature** >400 °C  
**Decomposition temperature** not relevant  
**pH (value)** 7 – 7.7 (20 °C)  
**Kinematic viscosity** not relevant  
**Solubility(ies)** not determined

**Partition coefficient**  
Partition coefficient n-octanol/water (log value) this information is not available

Vapour pressure 6.5 bar at 20 °C

**Density and/or relative density**  
Density 1.012 g/ml (calculated value)  
Relative vapour density information on this property is not available

## 9.2 Other information

**Information with regard to physical hazard classes** there is no additional information

**Other safety characteristics**  
Temperature class (EU, acc. to ATEX) T2 (maximum permissible surface temperature on the equipment: 300°C)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

#### Hints to prevent fire or explosion

Protect from sunlight.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

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

## SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

#### Classification procedure

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

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

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components |            |                |             |
|---------------------------------------------|------------|----------------|-------------|
| Name of substance                           | CAS No     | Exposure route | ATE         |
| Amines, C12-16-alkyldimethyl, N-oxides      | 85408-49-7 | oral           | 1,724 mg/kg |

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

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

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

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## **Carcinogenicity**

Shall not be classified as carcinogenic.

## **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

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

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

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

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

## **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

## **11.2 Information on other hazards**

There is no additional information.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.  
Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 1, slightly hazardous to water (Germany)

### **12.2 Persistence and degradability**

Data are not available.

### **12.3 Bioaccumulative potential**

Data are not available.

### **12.4 Mobility in soil**

Data are not available.

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

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of  $\geq 0,1\%$ .

### **12.6 Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

### **12.7 Other adverse effects**

Data are not available.

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Sewage disposal-relevant information**

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

#### **Waste treatment of containers/packagings**

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

#### **Relevant provisions relating to waste**

##### **List of wastes, (Recommendations)**

###### **Product**

16 10 02 Aqueous liquid wastes other than those mentioned in 16 10 01

###### **Product residues**

16 10 02 Aqueous liquid wastes other than those mentioned in 16 10 01

###### **Packagings**

15 01 04 Metallic packaging

#### **Remarks**

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

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## SECTION 14: Transport information

- 14.1 UN number or ID number**  
**ADR/RID/ADN** UN 1950  
**IMDG-Code** UN 1950  
**ICAO-TI** UN 1950
- 14.2 UN proper shipping name**  
**ADR/RID/ADN** AEROSOLS  
**IMDG-Code** AEROSOLS  
**ICAO-TI** Aerosols, non-flammable
- 14.3 Transport hazard class(es)**  
**ADR/RID/ADN** 2 (2.2)  
**IMDG-Code** 2.2  
**ICAO-TI** 2.2
- 14.4 Packing group** not assigned
- 14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user**  
Provisions for dangerous goods (ADR) should be complied within the premises.
- 14.7 Maritime transport in bulk according to IMO instruments**  
The cargo is not intended to be carried in bulk.

### Information for each of the UN Model Regulations

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

Classification code 5A  
Danger label(s) 2.2



Special provisions (SP) 190, 327, 344, 625  
Excepted quantities (EQ) E0  
Limited quantities (LQ) 1 L  
Transport category (TC) 3  
Tunnel restriction code (TRC) E

#### International Maritime Dangerous Goods Code (IMDG) Additional information

Marine pollutant -  
Danger label(s) 2.2



Special provisions (SP) 63, 190, 277, 327, 344, 381, 959  
Excepted quantities (EQ) E0  
Limited quantities (LQ) 1 L  
EmS F-D, S-U  
Stowage category -

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

Danger label(s) 2.2



Special provisions (SP) A98, A145, A167  
Excepted quantities (EQ) E0  
Limited quantities (LQ) 30 kg

## SECTION 15: Regulatory information

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

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

#### List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

#### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

#### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

#### Water Framework Directive (WFD)

none of the ingredients are listed

#### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

#### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

#### National regulations (Germany)

#### Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

**Wassergefährdungsklasse, WGK (water hazard class)** 1 slightly hazardous to water

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

| Number | Group of substances | Class | Conc.    | Mass flow | Mass concentration   | Notation |
|--------|---------------------|-------|----------|-----------|----------------------|----------|
| 5.2.5  | organic substances  |       | ≥ 25 wt% | 0.5 kg/h  | 50 mg/m <sup>3</sup> | 3)       |

Notation

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

#### National inventories

| Country | Inventory  | Status                     |
|---------|------------|----------------------------|
| EU      | REACH Reg. | all ingredients are listed |

Legend

REACH Reg. REACH registered substances

### 15.2 Chemical safety assessment

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

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                      | Actual entry (text/value)                                                                                      | Safety-relevant |
|---------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------|
| 1.2     | Relevant identified uses:<br>General use<br>Leak finder                                                        | Relevant identified uses:<br>Leak finder<br>General use                                                        | yes             |
| 2.3     | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.    | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.    | yes             |
| 2.3     | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0,1%. | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. | yes             |
| 3.2     |                                                                                                                | Hazardous ingredients, Specific Conc. Limits, M-factors, ATE:<br>change in the listing (table)                 | yes             |
| 3.2     |                                                                                                                | Remarks:<br>For full text of abbreviations: see SECTION 16.                                                    | yes             |
| 9.1     | pH (value):<br>not determined                                                                                  | pH (value):<br>7 – 7.7 (20 °C)                                                                                 | yes             |

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| Section | Former entry (text/value)                                                                                                                                                                             | Actual entry (text/value)                                                                                                                                                                             | Safety-relevant |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 12.5    | Results of PBT and vPvB assessment:<br>According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ . | Results of PBT and vPvB assessment:<br>According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$ . | yes             |
| 12.6    | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0,1\%$ .                                                                                 | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$ .                                                                                 | yes             |

**Abbreviations and acronyms**

| Abbr.            | Descriptions of used abbreviations.                                                                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Tox.       | Acute toxicity.                                                                                                                                                                                                        |
| ADN.             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways). |
| ADR.             | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road).                                                         |
| ADR/RID/ADN.     | Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN).                                                                                                       |
| Aquatic Acute.   | Hazardous to the aquatic environment - acute hazard.                                                                                                                                                                   |
| Aquatic Chronic. | Hazardous to the aquatic environment - chronic hazard.                                                                                                                                                                 |
| ATE.             | Acute Toxicity Estimate.                                                                                                                                                                                               |
| CAS.             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances).                                                                                                                |
| CLP.             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.                                                                                                                    |
| DGR.             | Dangerous Goods Regulations (see IATA/DGR).                                                                                                                                                                            |
| DNEL.            | Derived No-Effect Level.                                                                                                                                                                                               |
| EC No.           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union).                                     |
| ED.              | Endocrine disruptor.                                                                                                                                                                                                   |
| EINECS.          | European Inventory of Existing Commercial Chemical Substances.                                                                                                                                                         |
| ELINCS.          | European List of Notified Chemical Substances.                                                                                                                                                                         |
| EmS.             | Emergency Schedule.                                                                                                                                                                                                    |
| Eye Dam.         | Seriously damaging to the eye.                                                                                                                                                                                         |
| Eye Irrit.       | Irritant to the eye.                                                                                                                                                                                                   |
| GHS.             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations.                                                                                                             |
| IATA.            | International Air Transport Association.                                                                                                                                                                               |
| IATA/DGR.        | Dangerous Goods Regulations (DGR) for the air transport (IATA).                                                                                                                                                        |
| ICAO.            | International Civil Aviation Organization.                                                                                                                                                                             |
| ICAO-TI.         | Technical instructions for the safe transport of dangerous goods by air.                                                                                                                                               |
| IMDG.            | International Maritime Dangerous Goods Code.                                                                                                                                                                           |
| IMDG-Code.       | International Maritime Dangerous Goods Code.                                                                                                                                                                           |
| Index No.        | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008.                                                                                              |
| L GK.            | Lagerklasse (storage class according to TRGS 510, Germany).                                                                                                                                                            |
| NLP.             | No-Longer Polymer.                                                                                                                                                                                                     |
| PBT.             | Persistent, Bioaccumulative and Toxic.                                                                                                                                                                                 |
| PNEC.            | Predicted No-Effect Concentration.                                                                                                                                                                                     |
| REACH.           | Registration, Evaluation, Authorisation and Restriction of Chemicals.                                                                                                                                                  |
| RID.             | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail).                                               |
| Skin Corr.       | Corrosive to skin.                                                                                                                                                                                                     |
| Skin Irrit.      | Irritant to skin.                                                                                                                                                                                                      |
| SVHC.            | Substance of Very High Concern.                                                                                                                                                                                        |
| TRGS.            | Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany).                                                                                                                                |
| VPvB.            | Very Persistent and very Bioaccumulative.                                                                                                                                                                              |

**Key literature references and sources for data**

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

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

**Classification procedure**

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

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

**List of relevant phrases (code and full text as stated in section 2 and 3)**

|       |                                                  |
|-------|--------------------------------------------------|
| H229. | Pressurised container: May burst if heated.      |
| H302. | Harmful if swallowed.                            |
| H315. | Causes skin irritation.                          |
| H318. | Causes serious eye damage.                       |
| H400. | Very toxic to aquatic life.                      |
| H411. | Toxic to aquatic life with long lasting effects. |

**Disclaimer**

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