**Safety Data Sheet**
**MANTOPLAST HYDRO ONE DAY ADHES. PROMOTER**
Safety Data Sheet dated 20/05/2024 version 4

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

### 1.1. Product identifier

Mixture identification:

Trade name: MANTOPLAST HYDRO ONE DAY ADHES. PROMOTER

Trade code: LQ136186

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

Recommended use: Coatings and paints, thinners, paint removers

Additivo per prodotti vernicianti

Dispersione pigmentata liquida

Impieghi per i consumatori

Uses advised against: N.A.

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

Company: Lechler SpA - Via Cecilio, 17 - 22100 Como - CO - Italy

Telefono: +39031586111

First Email: safety@lechler.eu

### 1.4. Emergency telephone number

CAV "Osp.Ped.Bambino Gesù" Dip.Emergenza di Roma ...0668593726
Azienda Ospedaliera Università di Foggia ..... .....800183459 -
Ospedale Niguarda Ca' Granda di Milano ..... .....0266101029 -
Azienda Ospedaliera "A. Cardarelli" di Napoli ..... .....0817472870 -
CAV Policlinico "Umberto I" di Roma ..... ....0649978000 -
CAV Policlinico "A. Gemelli" di Roma ..... .....063054343 -
Azienda Osp."Careggi" U.O. Tossicologica di Firenze .....0557947819 -
CAV Centro Nazionale di Informaz.Tossicol. di Pavia .....038224444 -
Azienda Ospedaliera Papa Giovanni XXIII di Bergamo.....800883300 -
Azienda Ospedaliera Integrata di Verona..... ..... ..800011858 -

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) n. 1272/2008 (CLP)**

Eye Dam. 1 Causes serious eye damage.

Aquatic Chronic 3 Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

**Regulation (EC) No 1272/2008 (CLP):**

**Hazard pictograms and Signal Word**

Danger

**Hazard statements**

H318 Causes serious eye damage.

| | |
|---|---|
| H412 | Harmful to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Contattare immediatamente un CENTRO ANTIVELENI/un medico. |
| P501 | Smaltire il prodotto/ recipiente in un impianto d'eliminazione di rifiuti autorizzato. |

**Contains**

3-glicidilossipropil-trimetossisilano

**Special provisions according to Annex XVII of REACH and subsequent amendments:**

None.

**2.3. Other hazards**

Risultati della valutazione PBT e vPvB
Secondo i criteri dell'ordinamento REACH nessuna sostanza come PBT,
vPvB. Proprietà di interferenza con il sistema endocrino-Tossicità
La sostanza/miscela non contiene componenti considerati aventi proprietà di interferenza endocrina ai sensi dell'articolo 57(f) del REACH o del regolamento delegato (UE) 2017/2100 della Commissione o del regolamento (UE) 2018/605 della Commissione a livelli dello 0,1% o superiori.
Proprietà di interferenza con il sistema endocrino-Ecotossicità
La sostanza/miscela non contiene componenti considerati aventi proprietà di interferenza endocrina ai sensi dell'articolo 57(f) del REACH o del regolamento delegato (UE) 2017/2100 della Commissione o del regolamento (UE) 2018/605 della Commissione a livelli dello 0,1% o superiori.

Other Hazards: No other hazards

## SECTION 3: Composition/information on ingredients

**3.1. Substances**

N.A.

**3.2. Mixtures**

Mixture identification: MANTOPLAST HYDRO ONE DAY ADHES. PROMOTER

**Hazardous components within the meaning of the CLP regulation and related classification:**

| Qty | Name | Ident. Numb. | Classification | Registration Number |
|---|---|---|---|---|
| ≥70 - ≤80 % | (metil-2-metossietossi)propanolo | CAS:34590-94-8 EC:252-104-2 | Substance with a Union workplace exposure limit. | 01-2119450011-60 |
| ≥25 - ≤30 % | 3-glicidilossipropil-trimetossisilano | CAS:2530-83-8 EC:219-784-2 | Eye Dam. 1, H318; Aquatic Chronic 3, H412 | 01-2119513212-58 |

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation

Eye damages

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide ($CO_2$).

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

## SECTION 6: Accidental release measures

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

**For non emergency personnel:**

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

**For emergency responders:**

Wear personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

### 6.4. Reference to other sections

See also section 8 and 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

**Advice on general occupational hygiene:**

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

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

### 7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Community Occupational Exposure Limits (OEL)**

| OEL Type | Country | Occupational Exposure Limit |
|---|---|---|

| | | | |
|---|---|---|---|
| (metil-2-metossietossi)propanolo<br>CAS: 34590-94-8 | EU | | Long Term: 308 mg/m3 - 50 ppm<br>Behaviour Indicative<br>2000/39/CE |
| | EU | | Identifica la possibilità di significativo assorbimento attraverso la pelle |
| | VLEP | ITALY | Long Term: 308 mg/m3 - 50 ppm<br>La notazione 'Pelle' attribuita ai valori limite di esposizione indica possibilità di assorbimento significativo attraverso la pell |
| | SUVA | SWITZERLAND | Long Term: 300 mg/m3 - 50 ppm; Breve Termine 300 mg/m3 - 50 ppm<br>National Institute for Occupational Safety and Health |
| | ACGIH | | Long Term: 50 ppm<br>Liver & CNS eff |

**Predicted No Effect Concentration (PNEC) values**

| | |
|---|---|
| (metil-2-metossietossi)propanolo<br>CAS: 34590-94-8 | Exposure Route: Fresh Water; PNEC Limit: 19 mg/l |
| | Exposure Route: Intermittent releases (fresh water); PNEC Limit: 190 mg/l |
| | Exposure Route: Marine water; PNEC Limit: 1.9 mg/l |
| | Exposure Route: Freshwater sediments; PNEC Limit: 70.2 mg/kg |
| | Exposure Route: Marine water sediments; PNEC Limit: 7.02 mg/kg |
| | Exposure Route: Soil; PNEC Limit: 2.74 mg/kg |
| | Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 4168 mg/l |
| 3-glicidilossipropil-trimetossisilano<br>CAS: 2530-83-8 | Exposure Route: Fresh Water; PNEC Limit: 1 mg/l |
| | Exposure Route: Marine water; PNEC Limit: 0.1 mg/l |
| | Exposure Route: Soil; PNEC Limit: 0.79 mg/kg |

**Derived No Effect Level (DNEL) values**

| | |
|---|---|
| (metil-2-metossietossi)propanolo<br>CAS: 34590-94-8 | Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects<br>Consumer: 37.2 mg/m3 |
| | Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects |
| | Exposure Route: Oral; Exposure Frequency: Long Term, systemic effects |
| | Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects<br>Worker Professional: 308 mg/m3 |
| | Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects |
| 3-glicidilossipropil-trimetossisilano<br>CAS: 2530-83-8 | Exposure Route: Human Dermal; Exposure Frequency: Acute Effects<br>Worker Professional: 21 ppm |
| | Exposure Route: Human Inhalation; Exposure Frequency: Acute Effects<br>Worker Professional: 147 mg/m3 |
| | Exposure Route: Human Dermal; Exposure Frequency: Chronic Effects<br>Worker Professional: 21 ppm |
| | Exposure Route: Human Inhalation; Exposure Frequency: Chronic Effects<br>Worker Professional: 147 mg/m3 |

**8.2. Exposure controls**

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

## SECTION 9: Physical and chemical properties

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

Physical state: Liquid

Colour: colourless

Odour: N.A.

pH: Not Relevant

Kinematic viscosity: > 20,5 mm2/sec (40 °C)

Melting point/freezing point: N.A.

Boiling point or initial boiling point and boiling range: N.A.

Flash point: > 93°C

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: N.A.

Density and/or relative density: 0.98 g/cm3

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient n-octanol/water (log value): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Kinematic viscosity m2/s (40°C) > 20,5 mm2/sec (40 °C)

Viscosity: = 59.00 s - Method: DIN 53211 - Sezione: 8.00 mm

**Particle characteristics:**

Particle size: N.A.

### 9.2. Other information

Evaporation rate: N.A.

Miscibility: N.A.

Conductivity: N.A.

No other relevant information

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Data not available.

### 10.3. Possibility of hazardous reactions

None.

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

None.

## SECTION 11: Toxicological information

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

**Toxicological Information of the Preparation**

| | |
|---|---|
| a) acute toxicity | Not classified |
| | Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation | Not classified |
| | Based on available data, the classification criteria are not met |
| c) serious eye damage/irritation | The product is classified: Eye Dam. 1(H318) |
| d) respiratory or skin sensitisation | Not classified |
| | Based on available data, the classification criteria are not met |
| e) germ cell mutagenicity | Not classified |
| | Based on available data, the classification criteria are not met |

| | |
|---|---|
| f) carcinogenicity | Not classified |
| | Based on available data, the classification criteria are not met |
| g) reproductive toxicity | Not classified |
| | Based on available data, the classification criteria are not met |
| h) STOT-single exposure | Not classified |
| | Based on available data, the classification criteria are not met |
| i) STOT-repeated exposure | Not classified |
| | Based on available data, the classification criteria are not met |
| j) aspiration hazard | Not classified |
| | Based on available data, the classification criteria are not met |

**Toxicological information on main components of the mixture:**

| | | |
|---|---|---|
| (metil-2-metossietossi)propanolo | a) acute toxicity | LD50 Oral Ratto = 5350 mg/kg |
| | | LD50 Skin Coniglo > 2000 mg/kg |

### 11.2. Information on other hazards

**Endocrine disrupting properties:**

La sostanza/miscela non contiene componenti considerati aventi proprietà di interferenza endocrina ai sensi dell'articolo 57(f) del REACH o del regolamento delegato (UE) 2017/2100 della Commissione o del regolamento (UE) 2018/605 della Commissione a livelli dello 0,1% o superiori.

## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Harmful to aquatic life with long lasting effects.

**List of Eco-Toxicological properties of the product**

The product is classified: Aquatic Chronic 3(H412)

**List of Eco-Toxicological properties of the components**

| Component | Ident. Numb. | Ecotox Data |
|---|---|---|
| (metil-2-metossietossi)propanolo | CAS: 34590-94-8 - EINECS: 252-104-2 | a) Tossicità acquatica acuta : LC50 Fish > 10000 mg/L 96 H |
| | | a) Tossicità acquatica acuta : EC50 Invertebrates Daphnia (water flea) > 85000 mg/L 48 H |
| 3-glicidilossipropil-trimetossisilano | CAS: 2530-83-8 - EINECS: 219-784-2 | a) Tossicità acquatica acuta : LC50 Fish = 55 mg/L 96h Tested according to Directive 92/69/EEC |
| | | a) Tossicità acquatica acuta : EC50 Daphnia = 324 mg/L 48h |
| | | a) Tossicità acquatica acuta : NOEC Algae = 119 mg/kg 7 d |
| | | b) Tossicità acquatica cronica : NOEC Daphnia > 100 mg/L 21 Days |

### 12.2. Persistence and degradability

N.A.

### 12.3. Bioaccumulative potential

N.A.

### 12.4. Mobility in soil

N.A.

### 12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

### 12.6. Endocrine disrupting properties

La sostanza/miscela non contiene componenti considerati aventi proprietà di interferenza endocrina ai sensi dell'articolo 57(f) del REACH o del regolamento delegato (UE) 2017/2100 della Commissione o del regolamento (UE) 2018/605 della Commissione a livelli dello 0,1% o

superiori.

**12.7. Other adverse effects**

N.A.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

## SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

**14.1. UN number or ID number**

N/A

**14.2. UN proper shipping name**

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

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

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

**14.4. Packing group**

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

**14.5. Environmental hazards**

Toxic ingredients quantity: 0.00

Very toxic ingredients quantity: 0.00

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: N/A

**14.6. Special precautions for user**

Road and Rail (ADR-RID):

ADR exempt:

ADR-Label: N/A

ADR - Hazard identification number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code): N/A

Air (IATA):

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A

IATA-Subsidiary hazards: N/A

IATA-Erg: N/A

IATA-Special Provisions: N/A

Sea (IMDG):

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisions: N/A

**14.7. Maritime transport in bulk according to IMO instruments**

N.A.

## SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regolamento (UE) n. 2021/849 (ATP 17 CLP)
Regolamento (UE) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2020/878

**Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:**

Restrictions related to the product: 3

Restrictions related to the substances contained: None.

**Provisions related to directive EU 2012/18 (Seveso III):**

None

**Regulation (EU) No 649/2012 (PIC regulation)**

No substances listed

**German Water Hazard Class.**

1: contaminante lieve dell'acqua

**Lagerklasse according to TRGS 510:**

LGK 10

**SVHC Substances:**

NOSVHCCOMPS

**Dir. 2010/75/CE (Direttiva COV)**

Volatile Organic compounds - VOCs = 75.00 %

Volatile Organic compounds - VOCs = 735.00 g/L

Estimated Total Content of Water 0.00 %

Estimated Total Solid Content 25.00 %

**Classificazione in accordo con VbF**

Classificazione in accordo con VbF A III - Punto di infiammabilità > 55 °C fino a 100 °C, non mescolabile con acqua a 15 °C

**Mal-Code (Denmark)**

| Mal-Code (Denmark) | Mal Factor | Unit of Measure | Revision Status / Number | Regulatory Base |
|---|---|---|---|---|
| 1 - 3 | 367 | m3 air/10 g | 1993 | Administrative determined MAL-Factors |

### Biocidi

REGOLAMENTO (CE) N. 528/2012

**15.2. Chemical safety assessment**

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

## SECTION 16: Other information

| Code | Description |
|---|---|
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

| Code | Hazard class and hazard category | Description |
|---|---|---|
| 3.3/1 | Eye Dam. 1 | Serious eye damage, Category 1 |
| 4.1/C3 | Aquatic Chronic 3 | Chronic (long term) aquatic hazard, category 3 |

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

| Classification according to Regulation (EC) Nr. 1272/2008 | Classification procedure |
|---|---|
| Eye Dam. 1, H318 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: KAFH

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information