

## Safety Data Sheet

### KERAPOXY EASY DESIGN /A

Safety Data Sheet dated: 20/03/2024 - version 6

Date of first edition: 26/01/2021



## Section 1: Identification

### GHS Product identifier

Mixture identification:

Trade name: KERAPOXY EASY DESIGN /A

Trade code: 905KB9990

### Recommended use of the chemical and restrictions on use

Recommended use: Acid-resistant epoxy grout and adhesive for ceramic tiles

Uses advised against: Data not available.

### Supplier's details

Company: MAPEI AUSTRALIA Pty Ltd

180 Viking Drive Wacol QLD 4076 Australia

T. +61 7 32765000 (Mon-Fri 8am to 4.30pm)

F. +61 7 32765076

Responsible: sales@mapei.com.au

### Emergency phone number

Australian Poisons Information Centre 24 Hour Service 13 11 26

Police or Fire Brigade 000

## Section 2: Hazard(s) identification



### Classification of the Hazardous chemical

Skin irritation, Category 2

Causes skin irritation.

Eye irritation, Category 2A

Causes serious eye irritation.

Skin Sensitisation, Category 1A

May cause an allergic skin reaction.

Long-term (chronic) aquatic hazard - Category 3

Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### GHS label elements, including precautionary statements

#### Hazard pictograms and Signal Word



Warning

#### Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P261 Avoid breathing mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/clothing and eye/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplementary instructions on this label)

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with applicable regulations.

#### Other hazards which do not result in a classification

Other Hazards: No other hazards

This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

### Section 3: Composition and information on ingredients

#### Substances

no data available

#### Mixtures

Mixture identification: KERAPOXY EASY DESIGN /A

#### Hazardous components within the meaning of the "Australian Work Health and Safety (WHS)" regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥5 - <10 %	bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS:1675-54-3, 25085-99-8 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411 Aquatic Acute 2, H401 Skin Sens. 1, H317  Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319	01-2119456619-26-XXXX
≥5 - <10 %	1,6-Hexanediol Diglycidyl Ether	CAS:933999-84-9, 16096-31-4 EC:618-939-5	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	01-2119463471-41-0005
≥2.5 - <5 %	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS:9003-36-5 EC:701-263-0	Skin Irrit. 2, H315; Aquatic Chronic 2, H411; Skin Sens. 1, H317	01-2119454392-40-XXXX
≥0.49 - <1 %	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	CAS:1065336-91-5 EC:915-687-0	Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Repr. 2, H361f	01-2119491304-40-XXXX
≥0.01 - <0.016 %	zinc pyrithione	CAS:13463-41-7 EC:236-671-3 Index:613-333-00-7	Acute Tox. 3, H301; STOT RE 1, H372; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 2, H330; Repr. 1B, H360, M-Chronic:10, M-Acute:1000	

### Section 4: First-aid measures

#### Description of necessary first-aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.

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 ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

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

In case of Inhalation:

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

#### Symptoms caused by exposure

Eye irritation  
Eye damages  
Skin Irritation  
Erythema

#### Medical attention and special treatment

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

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## Section 5: Firefighting measures

### Suitable extinguishing media

None in particular.  
Water.  
Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

### Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.  
Burning produces heavy smoke.  
Hazardous combustion products: no data available  
Explosive properties: no data available  
Oxidizing properties: no data available

### Special protective equipment and precautions for fire-fighters

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.

### HazChem Code/Emergency Action code

N.A.

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## Section 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.  
Remove persons to safety.

### Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Limit leakages with earth or sand.

### Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand  
Wash with plenty of water.  
Retain contaminated washing water and dispose it.

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## Section 7: Handling and storage

### 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.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.

### Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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## Section 8: Exposure controls and personal protection

### Control parameters – exposure standards, biological monitoring

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

1,6-Hexanediol Diglycidyl Ether Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l  
CAS: 933999-84-9,  
16096-31-4

Exposure Route: Fresh Water; PNEC Limit: 0.0115 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0.283 mg/kg

Exposure Route: Marine water; PNEC Limit: 0.00115 mg/l

Exposure Route: Marine water sediments; PNEC Limit: 0.0283 mg/kg

Exposure Route: Soil; PNEC Limit: 0.223 mg/kg

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol  
CAS: 9003-36-5

Exposure Route: Fresh Water; PNEC Limit: 0.003 mg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 0.294 mg/kg  
Exposure Route: Marine water; PNEC Limit: 0.0003 mg/l  
Exposure Route: Marine water sediments; PNEC Limit: 0.0294 mg/kg  
Exposure Route: Soil; PNEC Limit: 0.237 mg/kg  
Exposure Route: Fresh Water; PNEC Limit: 0.0022 mg/l

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate  
CAS: 1065336-91-5

Exposure Route: Marine water; PNEC Limit: 0.00022 mg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 1.05 mg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 0.11 mg/kg  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l  
Exposure Route: Soil; PNEC Limit: 0.21 mg/kg  
Exposure Route: Intermittent release; PNEC Limit: 0.009 mg/l

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

1,6-Hexanediol Diglycidyl Ether  
CAS: 933999-84-9, 16096-31-4

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 2.8 mg/kg  
Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 4.9 mg/m<sup>3</sup>

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate  
CAS: 1065336-91-5

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 0.18 mg/kg  
Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 1.27 mg/m<sup>3</sup>; Consumer: 0.31 mg/m<sup>3</sup>  
Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 1.8 mg/kg; Consumer: 0.9 mg/kg

#### Appropriate engineering controls

no data available

#### Individual protection measures, such as personal protective equipment (PPE)

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:

Suitable materials for safety gloves; AS/NZS 2161.10:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

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

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to AS/NZS 1715-1716 for information on selection and use of appropriate respiratory protection equipment.

no data available

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## Section 9: Physical and chemical properties

Physical state: Liquid  
Appearance: paste  
Color: various  
Odour: Characteristic  
pH: Not Relevant  
Melting point / freezing point: no data available  
Initial boiling point and boiling range: no data available  
Flash point: no data available  
Evaporation rate: no data available  
Lower and upper explosion limit/flammability limits:  
Flammability (Solid, Gas) no data available

no data available

Vapour pressure: no data available  
Vapour density: no data available  
Relative density: 1,61 g/cm<sup>3</sup>  
Solubility in water: Insoluble  
Solubility in oil: soluble  
Partition coefficient (n-octanol/water): no data available  
Auto-ignition temperature: no data available  
Kinematic viscosity: no data available  
Decomposition temperature: no data available  
Volatile Organic compounds - VOCs = 2,8 (A+B) (Rule 1168) g/l

**Particle characteristics:**

Particle size: no data available  
Particle size distribution: no data available  
Shape and aspect ratio: no data available  
Specific surface area: no data available

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## Section 10: Stability and reactivity

### Reactivity

Stable under normal conditions

### Chemical stability

no data available

### Possibility of hazardous reactions

None.

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

None in particular.

### Hazardous decomposition products

None.

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## Section 11: Toxicological information

### Information on toxicological effects

#### Toxicological Information of the Preparation

- |                                      |  |
|--------------------------------------|--|
| a) acute toxicity                    | Not classified<br>Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation         | The product is classified: Skin irritation, Category 2(H315)                       |
| c) serious eye damage/irritation     | The product is classified: Eye irritation, Category 2A(H319)                       |
| d) respiratory or skin sensitisation | The product is classified: Skin Sensitisation, Category 1A(H317)                   |
| e) germ cell mutagenicity            | Not classified<br>Based on available data, the classification criteria are not met |
| f) carcinogenicity                   | Not classified<br>Based on available data, the classification criteria are not met |
| g) reproductive toxicity             | Not classified<br>Based on available data, the classification criteria are not met |
| h) STOT-single exposure              | Not classified<br>Based on available data, the classification criteria are not met |
| i) STOT-repeated exposure            | Not classified   |

j) aspiration hazard Based on available data, the classification criteria are not met  
 Not classified  
 Based on available data, the classification criteria are not met

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

bis-[4-(2,3-epoxipropoxy)phenyl]propane	a) acute toxicity	LD50 Skin Rabbit = 20 mg/kg  LD50 Oral Rat = 11300 µL/kg
1,6-Hexanediol Diglycidyl Ether	a) acute toxicity	LD50 Oral Rat = 3010 mg/kg  LD50 Skin Rabbit > 4900 mg/kg
	i) STOT-repeated exposure	NOAEL Oral = 200 mg/kg  NOAEL Inhalation = 16 mg/m3
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg  LD50 Skin Rat > 2000 mg/kg
	i) STOT-repeated exposure	NOAEL Oral = 250 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	a) acute toxicity	LD50 Oral Rat = 3230 mg/kg  LD50 Skin Rat > 3170 mg/kg
zinc pyrrithione	a) acute toxicity	LD50 Skin Rabbit = 100 mg/kg LD50 Oral Rat = 177 mg/kg LC50 Inhalation Rat 0.05 mg/l 4h LD50 Skin Rabbit = 100 mg/kg

**Section 12: Ecological information**

**Ecotoxicity**

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: Long-term (chronic) aquatic hazard - Category 3(H412)

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

Component	Ident. Numb.	Ecotox Data
bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS: 1675-54-3, 25085-99-8 - EINECS: 216-823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish = 2 mg/L 96h
1,6-Hexanediol Diglycidyl Ether	CAS: 933999-84-9, 16096-31-4 - EINECS: 618-939-5	a) Aquatic acute toxicity : EC50 Daphnia = 1.8 mg/L 48h a) Aquatic acute toxicity : EC50 Daphnia = 47 mg/L 48

- a) Aquatic acute toxicity : LC50 Fish = 30 mg/L 96
- a) Aquatic acute toxicity : EC50 Algae = 23.1 mg/L 48
- a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 30 mg/L 96h ECHA

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS: 9003-36-5 - EINECS: 701-263-0 a) Aquatic acute toxicity : LC50 Fish = 5.7 mg/L 96h

- a) Aquatic acute toxicity : EC50 Daphnia = 2.55 mg/L 48h
- a) Aquatic acute toxicity : EC50 Algae = 1.8 mg/L 72h
- a) Aquatic acute toxicity : LC50 Fish = 0.9 mg/L 96h

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate CAS: 1065336-91-5 - EINECS: 915-687-0

- a) Aquatic acute toxicity : EC50 Algae = 1.68 mg/L 72h
- b) Aquatic chronic toxicity : NOEC Daphnia = 1 mg/L 21d

zinc pyrrithione CAS: 13463-41-7 - EINECS: 236-671-3 - INDEX: 613-333-00-7 G : LD50 Avian Colinus virginianus = 64 mg/kg NZ\_CCID

### Persistence and degradability

<b>Component</b>	<b>Persitence/Degradability:</b>
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Non-readily biodegradable

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### Other adverse effects

no data available

## Section 13: Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.  
no data available

Disposal of this product, solutions, packaging 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.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

### Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

### Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

## Section 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

### UN number

no data available

### UN proper shipping name

no data available

**Transport hazard class(es)**

no data available

**Packing group, if applicable**

no data available

**Environmental hazards**

no data available

**Special precautions for user**

ADG-Subsidiary hazards no data available

ADG-S.P.: no data available

## Road and Rail (ADR-RID):

no data available

ADR-Hazard identification number: NA

## Air (IATA):

no data available

## Sea (IMDG):

no data available

**Additional Information**

no data available

**HazChem Code/Emergency Action code**

no data available

**Section 15: Regulatory information****Safety, health and environmental regulations specific for the product in question**

This Safety Data Sheet has been prepared according to the Australian Work Health and Safety (WHS) act and the Code of Practice on preparation of safety data sheets for Hazardous Chemicals.

AICIS: all components are listed

**Section 16: Any other relevant information**

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
3.7/2	Repr. 2	Reproductive toxicity, Category 2
AUS-HAE/A1	Aquatic Acute 1	Short-term (acute) aquatic hazard - Category 1
AUS-HAE/A2	Aquatic Acute 2	Short-term (acute) aquatic hazard - Category 2
AUS-HAE/C1	Aquatic Chronic 1	Long-term (chronic) aquatic hazard - Category 1
AUS-HAE/C2	Aquatic Chronic 2	Long-term (chronic) aquatic hazard - Category 2
AUS-HAE/C3	Aquatic Chronic 3	Long-term (chronic) aquatic hazard - Category 3

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 SDS 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:**

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 16. OTHER INFORMATION