

Safety Data Sheet

KERAPOXY EASY DESIGN /B

Safety Data Sheet dated: 25/01/2022 - version 2



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

1.1. Product identifier

Mixture identification:

Trade name: KERAPOXY EASY DESIGN /B

Trade code: 905KB9999

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

Recommended use: Hardener for epoxy products

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel. +(39)02376731 (office hours) - Fax: +39-02-37673.214 - www.mapei.it

Responsible: sicurezza@mapei.it

1.4. Emergency telephone number

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

| | |
|-------------------|---|
| Skin Corr. 1B | Causes severe skin burns and eye damage. |
| Eye Dam. 1 | Causes serious eye damage. |
| Skin Sens. 1A | May cause an allergic skin reaction. |
| Aquatic Acute 1 | Very toxic to aquatic life. |
| Aquatic Chronic 1 | Very toxic to aquatic life with long lasting effects. |

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

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

Pictograms and Signal Words



Danger

Hazard statements:

| | |
|------|---|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary statements:

| | |
|----------------|--|
| P261 | Avoid breathing mist/vapours/spray. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/clothing and eye/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| 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 | Immediately call a POISON CENTER. |
| P391 | Collect spillage. |

Contains:

Fatty acids C18 unsaturated, reaction products with tetraethylenepentamine

3-aminomethyl-3,5,5-trimethylcyclohexylamine

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

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

None.

2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: KERAPOXY EASY DESIGN /B

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

| Concentration (% w/w) | Name | Ident. Numb. | Classification | Registration Number |
|-----------------------|--|---|---|-----------------------|
| ≥25 - <50 % | Fatty acids C18 unsaturated, reaction products with tetraethylenepentamine | CAS:1226892-45-0, 68410-23-1 EC:629-725-6 | Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Corr. 1C, H314; Skin Sens. 1A, H317, M-Chronic:1, M-Acute:10 | 01-2119487006-38-xxxx |
| ≥25 - <50 % | 3-aminomethyl-3,5,5-trimethylcyclohexylamine | CAS:2855-13-2 EC:220-666-8 Index:612-067-00-9 | Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Chronic 3, H412 | 01-2119514687-32-xxxx |
| ≥5 - <10 % | Phenol, styrenated | CAS:61788-44-1 EC:262-975-0 | Aquatic Chronic 2, H411; Aquatic Acute 1, H400 | 01-2119979575-18-XXXX |
| ≥1 - <2.5 % | N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine | CAS:10563-29-8 EC:234-148-4 | Acute Tox. 4, H302; Skin Corr. 1A, H314; Skin Sens. 1B, H317 | 01-2119970376-29-XXXX |

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- 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.

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

- Eye irritation
- Eye damages
- Skin Irritation
- Erythema

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).

Treatment:

- (see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

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.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. 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.

6.3. Methods and material for containment and cleaning up

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

Retain contaminated washing water and dispose it.

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.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. 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.

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

Predicted No Effect Concentration (PNEC) values

| Component | CAS-No. | PNEC Limit | Exposure Route | Exposure Frequency Remark |
|--|-----------|-------------|------------------------|---------------------------|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 0.06 mg/l | Fresh Water | |
| | | 0.006 mg/l | Marine water | |
| | | 0.23 mg/l | Intermittent release | |
| | | 5.784 mg/kg | Freshwater sediments | |
| | | 0.578 mg/kg | Marine water sediments | |
| | | 1.121 mg/kg | Soil | |
| | | 3.18 mg/l | Microorganisms in | |

| | | | |
|--|------------|--------------|-------------------------------------|
| | | | sewage treatments |
| Phenol, styrenated | 61788-44-1 | 0.001 mg/l | Fresh Water |
| | | 65778 mg/kg | Marine water sediments |
| | | 65778 mg/kg | Freshwater sediments |
| | | 0.17 mg/l | Microorganisms in sewage treatments |
| | | 31525 mg/kg | Soil |
| N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine | 10563-29-8 | 0.0092 mg/l | Fresh Water |
| | | 0.00092 mg/l | Marine water |
| | | 0.092 mg/l | Intermittent release |
| | | 18.1 mg/l | Microorganisms in sewage treatments |
| | | 0.0336 mg/kg | Freshwater sediments |

Derived No Effect Level. (DNEL)

| Component | CAS-No. | Worker Industrial | Worker Professional | Consumer | Exposure Route | Exposure Frequency | Remark |
|--|------------|-------------------------|---------------------|-------------------------|------------------|------------------------------|--------|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 20.1 mg/m ³ | | | Human Inhalation | | |
| Phenol, styrenated | 61788-44-1 | 11.02 mg/m ³ | | 2.717 mg/m ³ | Human Inhalation | Long Term, systemic effects | |
| | | 6.25 mg/kg | | 3.125 mg/kg | Human Dermal | Long Term, systemic effects | |
| | | | | 1.562 mg/kg | Human Oral | Long Term, systemic effects | |
| N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine | 10563-29-8 | 3.7 mg/m ³ | | 0.65 mg/m ³ | Human Inhalation | Long Term, systemic effects | |
| | | 7.5 mg/m ³ | | | Human Inhalation | Short Term, systemic effects | |
| | | 3.7 mg/m ³ | | 0.65 mg/m ³ | Human Inhalation | Long Term, local effects | |
| | | 0.67 mg/kg | | | Human Dermal | Long Term, systemic effects | |
| | | | | 0.2 mg/kg | Human Oral | Long Term, systemic effects | |

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:

Suitable materials for safety gloves; EN ISO 374:

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

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

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

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

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles),

correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: paste light yellow

Odour: ammonia

Odour threshold: N.A.

pH: 11.00

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: 0.01

Relative density: 1.10 g/cm³

Solubility in water: partly soluble

Solubility in oil: soluble

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

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: 200,000.00 cPs

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

9.2. Other information

No additional information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

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 toxicological effects

Toxicological information of the mixture:

| | |
|--------------------------------------|--|
| a) acute toxicity | Not classified Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation | The product is classified: Skin Corr. 1B(H314) |
| c) serious eye damage/irritation | The product is classified: Eye Dam. 1(H318) |
| d) respiratory or skin sensitisation | The product is classified: Skin Sens. 1A(H317) |
| 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:

| | | |
|--|--------------------------------------|--|
| Fatty acids C18 unsaturated, reaction products with tetraethylenepentamine | a) acute toxicity | LD50 Oral Rat > 2000 mg/kg |
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | a) acute toxicity | LC50 Inhalation Dust Rat > 5.01 mg/l 4h LD50 Oral Rat = 1030 mg/kg LD50 Skin Rat > 2000 mg/kg LD50 Oral Rat = 1030 mg/kg LD50 Skin Rat > 2000 mg/kg |
| Phenol, styrenated | a) acute toxicity | LC50 Inhalation Vapour Mouse = 158.3 mg/l 4h LD50 Oral Rat > 2500 mg/kg LD50 Skin Rat > 2000 mg/kg LD50 Skin Rabbit > 7940 mg/kg LC50 Inhalation Rat > 2.5 mg/l 6h LD50 Oral Rat 2100 mg/kg |
| N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine | a) acute toxicity | LD50 Oral Rat = 1670 mg/kg |
| | b) skin corrosion/irritation | Skin Corrosive Skin Rabbit Positive |
| | d) respiratory or skin sensitisation | Skin Sensitization Skin Positive |

SECTION 12: Ecological information

12.1. Toxicity

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

Eco-Toxicological Information:

Very toxic to aquatic organisms.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Acute 1(H400), Aquatic Chronic 1(H410)

List of components with eco-toxicological properties

| Component | Ident. Numb. | Ecotox Infos |
|--|--|---|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine | CAS: 2855-13-2 - EINECS: 220-666-8 - INDEX: 612-067-00-9 | a) Aquatic acute toxicity : LC50 Fish = 110 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia = 23 mg/L 48 a) Aquatic acute toxicity : EC50 Daphnia = 388 mg/L 48 a) Aquatic acute toxicity : EC50 Algae > 50 mg/L 72 |

| | | |
|--|--|---|
| | | b) Aquatic chronic toxicity : NOEC Daphnia = 3 mg/L - 21 d |
| | | a) Aquatic acute toxicity : EC50 Daphnia magna 14.6 mg/L 48h EPA |
| | | a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 37 mg/L 72h IUCLID |
| Phenol, styrenated | CAS: 61788-44-1 - EINECS: 262-975-0 | a) Aquatic acute toxicity : EC50 Daphnia = 4.6 mg/L 48 |
| | | a) Aquatic acute toxicity : EC50 Algae = 9.7 mg/L 72 |
| | | a) Aquatic acute toxicity : LC50 Fish = 5.6 mg/L 96 |
| N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine | CAS: 10563-29-8 - EINECS: 234-148-4 | a) Aquatic acute toxicity : LC50 Fish = 215 mg/L 96 |
| | | a) Aquatic acute toxicity : EC50 Daphnia = 9.2 mg/L 48 |
| | | a) Aquatic acute toxicity : EC50 Algae = 21 mg/L 72 |
| | | a) Aquatic acute toxicity : LC50 Fish Danio rerio > 100 mg/L 96h ECHA |

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/vPvB Ingredients are present

12.6. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

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.

Hazardous waste: Yes

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

14.1. UN number

2735

14.2. UN proper shipping name

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (- tetraethylenepentamine)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (- tetraethylenepentamine)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (- tetraethylenepentamine)

14.3. Transport hazard class(es)

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR-Label: 8

ADR-Hazard identification number: NA

ADR-Special Provisions: 274

ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA) :

IATA-Passenger Aircraft: 852

IATA-Cargo Aircraft: 856

IATA-Label: 8

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisioning: A3 A803

Sea (IMDG) :

IMDG-Stowage Code: Category A

IMDG-Stowage Note: SG35

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 223 274

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

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

N.A.

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A. g/l

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 (EU) 2015/830

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

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

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

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)

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

| Seveso III category according to Annex 1, part 1 | Lower-tier threshold (tonnes) | Upper-tier threshold (tonnes) |
|---|--|--|
| Products belongs to category E1 | 100 | 200 |

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: 75

SVHC Substances:

No data available

National regulations

Produktregisteret Norge: 111040

Produktregister Danmark: 4111710

MAL-kode: 00-5 (1993) A+B: 00-5 (1993)

German Water Hazard Class (WGK)

N.A.

15.2. Chemical safety assessment

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

SECTION 16: Other information

| Code | Description |
|------|---|
| H302 | Harmful if swallowed. |
| 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. |
| 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. |
| H412 | Harmful to aquatic life with long lasting effects. |

| Code | Hazard class and hazard category | Description |
|--------------|----------------------------------|--|
| 3.1/4/Dermal | Acute Tox. 4 | Acute toxicity (dermal), Category 4 |
| 3.1/4/Oral | Acute Tox. 4 | Acute toxicity (oral), Category 4 |
| 3.2/1A | Skin Corr. 1A | Skin corrosion, Category 1A |
| 3.2/1B | Skin Corr. 1B | Skin corrosion, Category 1B |
| 3.2/1C | Skin Corr. 1C | Skin corrosion, Category 1C |
| 3.3/1 | Eye Dam. 1 | Serious eye damage, Category 1 |
| 3.4.2/1 | Skin Sens. 1 | Skin Sensitisation, Category 1 |
| 3.4.2/1A | Skin Sens. 1A | Skin Sensitisation, Category 1A |
| 3.4.2/1B | Skin Sens. 1B | Skin Sensitisation, Category 1B |
| 4.1/A1 | Aquatic Acute 1 | Acute aquatic hazard, category 1 |
| 4.1/C1 | Aquatic Chronic 1 | Chronic (long term) aquatic hazard, category 1 |
| 4.1/C2 | Aquatic Chronic 2 | Chronic (long term) aquatic hazard, category 2 |
| 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 |
|---|--------------------------|
| 3.2/1B | Calculation method |
| 3.3/1 | Calculation method |
| 3.4.2/1A | Calculation method |
| 4.1/A1 | Calculation method |
| 4.1/C1 | 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 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
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
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION