

## Safety Data Sheet

### PLANIGROUT 300 PARTE B

Safety Data Sheet dated: 14/03/2023 - version 3

Date of first edition: 24/01/2022



## Section 1: Identification

### GHS Product identifier

Mixture identification:

Trade name: PLANIGROUT 300 PARTE B

Trade code: 900483

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

Recommended use: Hardener for epoxy products

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 corrosion, Category 1B

Causes severe skin burns and eye damage.

Serious eye damage, Category 1

Causes serious eye damage.

Skin Sensitisation, Category 1A

May cause an allergic skin reaction.

Reproductive toxicity, Category 1B

May damage fertility or the unborn child.

Long-term (chronic) aquatic hazard - Category 2

Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### GHS label elements, including precautionary statements

#### Pictograms and Signal Words



Danger

#### Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

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

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER.
P321	Specific treatment (see supplementary instructions on this label)
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with applicable regulations.

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

Other Hazards: No other hazards

**Section 3: Composition and information on ingredients**

**Substances**

no data available

**Mixtures**

Mixture identification: PLANIGROUT 300 PARTE B

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥50 - <75 %	fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	CAS:68082-29-1 EC:500-191-5	Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Sens. 1A, H317	01-2119972320-44-xxxx
≥20 - <25 %	triethylenetetramine	CAS:90640-67-8, 112-24-3 EC:292-588-2	Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	01-2119487919-13-XXXX
≥10 - <20 %	4,4'-isopropylidenediphenol	CAS:80-05-7 EC:201-245-8 Index:604-030-00-0	STOT SE 3, H335; Eye Dam. 1, H318; Skin Sens. 1, H317; Repr. 1B, H360F; Aquatic Chronic 2, H411	01-2119457856-23-0005

**Section 4: First-aid measures**

**Description of necessary 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.

**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).

**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**

2X

**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.

**Section 7: Handling and storage**

**Precautions for safe handling**

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

Exercise the greatest care when handling or opening the container.

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.

**Section 8: Exposure controls and personal protection**

**Control parameters – exposure standards, biological monitoring**

**Community Occupational Exposure Limits (OEL)**

	<b>OEL Type</b>	<b>Country</b>	<b>Occupational Exposure Limit</b>
4,4'-isopropylidenediphenol CAS: 80-05-7	National	FINLAND	Long Term: 5 mg/m <sup>3</sup>
	National	NORWAY	Long Term: 10 mg/m <sup>3</sup> A: Provoking allergic reactions or other hypersensitivity in the eyes or respiratory organs, or in contact with skin. R: To be treated as harmful to reproduction
	National	SWEDEN	Long Term: 2 mg/m <sup>3</sup>
	National	FRANCE	Long Term: 10 mg/m <sup>3</sup>
	National	SPAIN	Long Term: 2 mg/m <sup>3</sup>
	National	GREECE	Long Term: 2 mg/m <sup>3</sup>

National DENMARK	Long Term: 2 mg/m3
National FINLAND	Long Term: 2 mg/m3
National GERMANY	Long Term: 5 mg/m3
National PORTUGAL	Long Term: 10 mg/m3
National NORWAY	Long Term: 2 mg/m3; Short Term: 4 mg/m3
National BELGIUM	Long Term: 10 mg/m3
National CZECH REPUBLIC	Long Term: 2 mg/m3
National HUNGARY	Long Term: 2 mg/m3
National ESTONIA	Long Term: 10 mg/m3
National LATVIA	Long Term: 2 mg/m3
National CZECH REPUBLIC	Ceiling - Short Term: 5 mg/m3
National SLOVAKIA	Long Term: 2 mg/m3
National SLOVENIA	Long Term: 5 mg/m3; Short Term: 5 mg/m3
National UNITED KINGDOM	Long Term: 2 mg/m3; Short Term: 6 mg/m3
National BULGARIA	Long Term: 2 mg/m3
National ROMANIA	Long Term: 2 mg/m3
National LITHUANIA	Long Term: 10 mg/m3
National CROATIA	Long Term: 2 mg/m3
National PORTUGAL	Long Term: 2 mg/m3
National BELGIUM	Long Term: 2 mg/m3
National SLOVENIA	Long Term: 2 mg/m3; Short Term: 2 mg/m3

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

fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta  
CAS: 68082-29-1  
Exposure Route: Fresh Water; PNEC Limit: 0,00434 mg/l

Exposure Route: Marine water; PNEC Limit: 0,000434 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 434,02 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 43,4 mg/kg

Exposure Route: Soil; PNEC Limit: 86,78 mg/kg

triethylenetetramine  
CAS: 90640-67-8, 112-24-3  
Exposure Route: Marine water sediments; PNEC Limit: 0,123 mg/kg

Exposure Route: Freshwater sediments; PNEC Limit: 2,08 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 8 mg/l

4,4'-isopropylidenediphenol  
CAS: 80-05-7  
Exposure Route: Fresh Water; PNEC Limit: 0,018 mg/l

Exposure Route: Marine water; PNEC Limit: 0,016 mg/l

Exposure Route: Soil; PNEC Limit: 3,7 mg/kg

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

fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta  
CAS: 68082-29-1  
Exposure Route: Human Inhalation; Exposure Frequency: Long Term (repeated)  
Worker Industry: 0,00039 mg/cm2; Worker Professional: 0,00039 mg/cm2; Consumer: 0,000097 mg/cm2

Exposure Route: Human Dermal; Exposure Frequency: Long Term (repeated)  
Worker Industry: 1,1 mg/kg; Worker Professional: 0,00011 mg/cm2; Consumer: 0,56 mg/kg

triethylenetetramine  
CAS: 90640-67-8, 112-24-3  
Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Professional: 5,38 mg/l

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects

Worker Professional: 0,57 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects  
Consumer: 20 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Consumer: 8 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Consumer: 1,6 mg/l

4,4'-  
isopropylidenediphenol  
CAS: 80-05-7

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Worker Professional: 1,4 mg/kg; Consumer: 0,7 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Professional: 10 mg/m<sup>3</sup>; Consumer: 5 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 1,4 mg/kg; Consumer: 0,7 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 10 mg/m<sup>3</sup>; Consumer: 0,25 mg/m<sup>3</sup>

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects  
Consumer: 0,05 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 0,05 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Consumer: 5 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Consumer: 5 mg/m<sup>3</sup>

#### 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.

Use adequate protective respiratory equipment.

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## Section 9: Physical and chemical properties

Physical state: Liquid

Appearance: liquid

Color: light brown

Odour: Characteristic

pH: no data available

Melting point / freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point: 110 °C (230 °F)

Evaporation rate: no data available

Flammability (Solid, Gas) no data available

Lower and upper explosion limit/flammability limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: 0.98 g/cm<sup>3</sup>

Solubility in water: Insoluble  
Solubility in oil: no data available  
Partition coefficient (n-octanol/water): no data available  
Auto-ignition temperature: no data available  
Decomposition temperature: no data available  
Kinematic viscosity: no data available  
VOC % (Volatile Organic Compound) : No data available

**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 Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin corrosion, Category 1B(H314)
c) serious eye damage/irritation	The product is classified: Serious eye damage, Category 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sensitisation, Category 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	The product is classified: Reproductive toxicity, Category 1B(H360)
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 unsatd., dimers, oligomeric reaction products with teta

a) acute toxicity	LD50 Oral Rat > 2000 mg/kg
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LD50 Skin Rat > 2000 mg/kg

triethylenetetramine

a) acute toxicity	LD50 Skin Rabbit = 1465 mg/kg LD50 Oral Rat = 1716 mg/kg
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4,4'-

a) acute toxicity	LD50 Skin Rat = 3000,
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**Section 12: Ecological information****Ecotoxicity**

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

Eco-Toxicological Information:

Toxic 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 2(H411)

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

Component	Ident. Numb.	Ecotox Data
fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	CAS: 68082-29-1 - EINECS: 500-191-5	a) Aquatic acute toxicity : LC50 Fish = 7,07 mg/L 96h  a) Aquatic acute toxicity : EC50 Daphnia = 7,07 mg/L 48h a) Aquatic acute toxicity : EC50 Algae > 4,34 mg/L 72h
triethylenetetramine	CAS: 90640-67-8, 112-24-3 - EINECS: 292-588-2	a) Aquatic acute toxicity : EC50 Daphnia = 31,1 mg/L 48h
4,4'-isopropylidenediphenol	CAS: 80-05-7 - EINECS: 201-245-8 - INDEX: 604-030-00-0	a) Aquatic acute toxicity : LC50 Fish = 4,6 mg/L 96  a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 4 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4 mg/L 96h IUCLID  a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 9,9 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 10,2 mg/L 48h IUCLID  a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2,5 mg/L 96h IUCLID

**Persistence and degradability**

Component	Persistence/Degradability:
fatty acids, C18 unsatd., dimers, oligomeric reaction products with teta	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.

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**Section 14: Transport information**

**UN number**

2735

**UN proper shipping name**

ADG-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (triethylenetetramine - amine adduct)

ADR-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (triethylenetetramine - amine adduct)

IATA-Technical name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (triethylenetetramine - amine adduct)

IMDG-Technical name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (triethylenetetramine - amine adduct)

**Transport hazard class(es)**

ADG-Class: 8

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

**Packing group, if applicable**

ADG-Packing Group: II

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

**Environmental hazards**

ADG-Environmental Pollutant: Yes

Marine pollutant: Yes

**Special precautions for user**

ADG-Subsidiary hazards -

ADG-S.P.: 274

**Road and Rail (ADR-RID):**

ADR-Label: 8

ADR-Hazard identification number: 80

ADR-Special Provisions: 274

ADR-Transport category (Tunnel restriction code): 2 (E)

**Air (IATA):**

IATA-Passenger Aircraft: 851

IATA-Cargo Aircraft: 855

IATA-Label: 8

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisions: A3 A803

**Sea (IMDG):**

IMDG-Stowage Code: Category A

IMDG-Stowage Note: SG35

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274

IMDG-EMS: F-A, S-B

**Additional Information**

no data available

**HazChem Code/Emergency Action code**

2X



## 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

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## Section 16: Any other relevant information

Code	Description
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H360F	May damage fertility.
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
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
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
3.7/1B	Repr. 1B	Reproductive toxicity, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
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
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 16. OTHER INFORMATION