

## Safety Data Sheet

### ADESILEX PG4 parte A

Safety Data Sheet dated: 14/03/2023 - version 5

Date of first edition: 03/05/2017



## Section 1: Identification

### GHS Product identifier

Mixture identification:

Trade name: ADESILEX PG4 parte A

Trade code: 900487

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

Recommended use: Epoxy adhesive

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

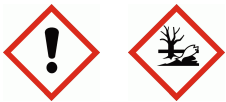
Responsible: sales@mapei.com.au

### 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 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



Warning

#### Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic 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.

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

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

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

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### Section 3: Composition and information on ingredients

#### Substances

no data available

#### Mixtures

Mixture identification: ADESILEX PG4 parte 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
≥25 - <50 %	calcium carbonate	CAS:1317-65-3 EC:215-279-6		
≥20 - <25 %	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 Skin Sens. 1, H317 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411  Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319	01-2119456619-26
≥20 - <25 %	free crystalline silica (Ø >10 µ)	CAS:14808-60-7 EC:238-878-4		
≥5 - <10 %	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS:68609-97-2 EC:271-846-8 Index:603-103-00-4	Skin Irrit. 2, H315; Skin Sens. 1B, H317	01-2119485289-22-XXXX
≥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

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### 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: ==  
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

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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

#### Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
calcium carbonate CAS: 1317-65-3	OSHA		Long Term: 15 mg/m <sup>3</sup>
	OSHA		Long Term: 5 mg/m <sup>3</sup>
	National	GREECE	Long Term: 10 mg/m <sup>3</sup>
	National	GREECE	Long Term: 5 mg/m <sup>3</sup>
	National	BELGIUM	Long Term: 10 mg/m <sup>3</sup>
	National	CZECH	Long Term: 10 mg/m <sup>3</sup>

REPUBLIC

National HUNGARY	Long Term: 10 mg/m3
National ESTONIA	Long Term: 10 mg/m3
National ESTONIA	Long Term: 5 mg/m3
National SLOVAKIA	Long Term: 10 mg/m3
National UNITED KINGDOM	Long Term: 10 mg/m3; Short Term: 30 mg/m3
National UNITED KINGDOM	Long Term: 10 mg/m3; Short Term: 12 mg/m3
National UNITED KINGDOM	Long Term: 4 mg/m3; Short Term: 30 mg/m3
National BULGARIA	Long Term: 10 mg/m3
National ROMANIA	Long Term: 10 mg/m3
National CROATIA	Long Term: 4 mg/m3
National CROATIA	Long Term: 10 mg/m3
National FRANCE	Long Term: 10 mg/m3
free crystalline silica (Ø >10 µ) CAS: 14808-60-7	ACGIH Long Term: 0,025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis
National AUSTRALIA	Long Term: 0,05 mg/m3
National BELGIUM	Long Term: 0,1 mg/m3
National BULGARIA	Long Term: 0,07 mg/m3
National CROATIA	Long Term: 0,1 mg/m3
National CZECH REPUBLIC	Long Term: 0,1 mg/m3
National DENMARK	Long Term: 0,3 mg/m3 DENMARK, inhalable aerosol inhalable aerosol
National DENMARK	Long Term: 0,1 mg/m3 DENMARK, respirable aerosol respirable aerosol
National DENMARK	Long Term: 0,3 mg/m3
National DENMARK	Long Term: 0,1 mg/m3
National ESTONIA	Long Term: 0,1 mg/m3
National FINLAND	Long Term: 0,05 mg/m3
National FRANCE	Long Term: 0,1 mg/m3
National HUNGARY	Long Term: 0,15 mg/m3
National LITHUANIA	Long Term: 0,1 mg/m3
National NORWAY	Long Term: 0,3 mg/m3 Totalstøv (total dust); K: Kjemikalier som skal betraktes som kreftfremkallende. (K: Chemicals to be treated as carcinogenic.)
ACGIH	Long Term: 0,025 mg/m3 (R), A2 - Pulm fibrosis, lung cancer
National PORTUGAL	Long Term: 0,025 mg/m3
National ROMANIA	Long Term: 0,1 mg/m3
National SLOVAKIA	Long Term: 0,1 mg/m3; Short Term: 0,5 mg/m3
National SLOVENIA	Long Term: 0,1 mg/m3
National SPAIN	Long Term: 0,05 mg/m3
National SWEDEN	Long Term: 0,1 mg/m3
National SWITZERLAND	Long Term: 0,15 mg/m3

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

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.  
CAS: 68609-97-2

Exposure Route: Marine water; PNEC Limit: 0,00072 mg/l

Exposure Route: Fresh Water; PNEC Limit: 0,0072 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 66,77 mg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 6,677 mg/kg  
Exposure Route: Soil; PNEC Limit: 80,12 mg/kg  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 mg/l

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

### 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: Grey

Odour: Characteristic

pH: no data available

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

Flammability (Solid, Gas) no data available

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

Vapour pressure: 0.01

Vapour density: no data available

Relative density: 1.73 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

Decomposition temperature: no data available

Kinematic viscosity: no data available

VOC % (Volatile Organic Compound) : 3 (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
	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
	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:

calcium carbonate	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg
bis-[4-(2,3-epoxipropoxy)phenyl]propane	a) acute toxicity	LD50 Skin Rabbit = 20 mg/kg
		LD50 Oral Rat = 11300 µL/kg
		LD50 Skin Rabbit = 20000 mg/kg
free crystalline silica (Ø >10 µ)	a) acute toxicity	LD50 Oral > 2000 mg/kg
		LD50 Skin > 2000 mg/kg
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	a) acute toxicity	LD50 Oral Rat = 19200 mg/kg
		LD50 Skin Rabbit = 4000, mg/kg
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	a) acute toxicity	LD50 Oral Rat > 5000, mg/kg

i) STOT-repeated exposure  
LD50 Skin Rat > 2000 mg/kg  
NOAEL Oral = 250 mg/kg

## 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
calcium carbonate	CAS: 1317-65-3 - EINECS: 215-279-6	a) Aquatic acute toxicity : LC50 Fish > 10000 mg/L 96  a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 48 a) Aquatic acute toxicity : EC50 Algae > 200 mg/L 72
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS: 68609-97-2 - EINECS: 271-846-8 - INDEX: 603-103-00-4	a) Aquatic acute toxicity : LC50 Fish > 100 mg/L 96h  a) Aquatic acute toxicity : EL50 Daphnia = 7,2 mg/L 48h a) Aquatic acute toxicity : EC50 Algae = 843 mg/L 72h b) Aquatic chronic toxicity : NOEC Algae = 500 mg/L 72h
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

### Persistence and degradability

Component	Persistence/Degradability:
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Readily biodegradable

### Bioaccumulative potential

Component	Bioaccumulation
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Not bioaccumulative

### 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**

3082

**UN proper shipping name**

ADG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

**Transport hazard class(es)**

ADG-Class: 9

ADR-Class: 9

IATA-Class: 9

IMDG-Class: 9

**Packing group, if applicable**

ADG-Packing Group: III

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

**Environmental hazards**

ADG-Environmental Pollutant: Yes

Marine pollutant: Yes

**Special precautions for user**

ADG-Subsidiary hazards -

ADG-S.P.: 274 331 335 375 AU01

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

ADR exempt: No

ADR-Label: 9

ADR-Hazard identification number: 90

ADR-Special Provisions: 274 335 375 601

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

**Air (IATA):**

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subsidiary hazards: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158 A197

**Sea (IMDG):**

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274 335 969

IMDG-EMS: F-A, S-F

**Additional Information**

no data available

**HazChem Code/Emergency Action code**

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These substances, when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids, or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to provisions of ADR, IMDG and IATA DGR.



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## 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
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic 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
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
AUS-HAE/C2	Aquatic Chronic 2	Long-term (chronic) aquatic hazard - Category 2

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
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 16. OTHER INFORMATION