

Safety Data Sheet
ULTRALITE FLEX (LD)

Safety Data Sheet dated: 06/02/2020 - version 2



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

1.1. Product identifier

Mixture identification:

Trade name: ULTRALITE FLEX (LD)

Trade code: 9012013

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

Recommended use: Cement based powder adhesive

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

Responsible: sicurezza@mapei.it

1.4. Emergency telephone number

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

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

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

Skin Irrit. 2	Causes skin irritation.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1B	May cause an allergic skin reaction.
STOT SE 3	May cause respiratory irritation.

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:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statements:

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... Thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
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.
P310	Immediately call a POISON CENTER/doctor/...
P312	Call a POISON CENTER/doctor/... if you feel unwell.

P321	Specific treatment (see ... On this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to ...

Contains:

Portland cement, Cr(VI) < 2 ppm
calcium formate

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

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)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not available

3.2. Mixtures

Mixture identification: ULTRALITE FLEX (LD)

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

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
≥50 - <75 %	Portland cement, Cr(VI) < 2 ppm	CAS:65997-15-1 EC:266-043-4	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Dam. 1, H318; STOT SE 3, H335	
≥1 - <2.5 %	calcium formate	CAS:544-17-2 EC:208-863-7	Eye Dam. 1, H318	01-2119486476-24-XXXX
≥0.49 - <1 %	calcium hydroxide	CAS:1305-62-0 EC:215-137-3	Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335	01-2119475151-45-XXXX
<0.0015 %	free crystalline silica (Ø <10 µ)	CAS:14808-60-7 EC:238-878-4	STOT RE 2, H373	

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:

- In case of inhalation, consult a doctor immediately and show him packing or label.

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.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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.

Do not use on extensive surface areas in premises where there are occupants.

Use localized ventilation system.

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

Always keep in a well ventilated place.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

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

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note	
Portland cement, Cr(VI) < 2 ppm	National	FINLAND		1					FINLAND, respirabel fraktion	
	NDS	POLAND		6					frakcja wdychalna	
	NDS	POLAND		2					frakcja respirabilna	
	SUVA	SWITZERLAND		5					A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma	
	DFG	GERMANY		15						
	National	SPAIN		4,000						5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust)
	National	FINLAND		5,000						
	National	FINLAND		1,000						
	National	PORTUGAL		10						
	National	BELGIUM		10						
	NDS	POLAND		6,000						
	NDS	POLAND		2,000						
	National	HUNGARY		10						
	Malaysi a OEL	MALAYSIA		10,000						
	National	LATVIA		6,000						
	National	UNITED KINGDOM		10,000						inhalable dust
	National	UNITED KINGDOM		4,000						respirable dust
	National	CROATIA		10,000			10,000			
	DFG	GERMANY	C	15						
	ACGIH	AUSTRALIA		1,000						A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma
	Malaysi a OEL	MALAYSIA		10						5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust)
	National	UNITED KINGDOM		10			30,000			5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust)
	National	UNITED KINGDOM		10			12,000			
National	UNITED KINGDOM		4,000							
National	ROMANIA		10							
National	CROATIA		10,000							
National	CROATIA		4,000			10				
calcium hydroxide	EU	None		1,000		4,000				
	ACGIH	None		5,000						
	DFG	GERMANY	C			2,000				

	ACGIH	None	5		eye, skin and upper respiratory tract irritation
	National	SWEDEN	1,000		
	National	FRANCE	5,000		
	National	SPAIN	1,000	4,000	
	National	GREECE	1	4	
	National	NORWAY	1	2,000	
	National	DENMARK	1		
	National	FINLAND	1	4,000	
	National	GERMANY	1,000		
	National	PORTUGAL	5,000		
	National	BELGIUM	5,000		
	NDS	POLAND	2,000		
	NDS	POLAND	1,000		
	NDSch	POLAND		4,000	
	NDSch	POLAND		6,000	
	NDS	NETHERLANDS	1,000	4,000	
	National	CZECH REPUBLIC	1,000		
	National	HUNGARY	1	4,000	
	Malaysi a OEL	MALAYSIA	5		
	National	ESTONIA	1,000	4,000	
	National	LATVIA	1,000	4,000	
	National	CZECH REPUBLIC	C	4	
	National	SLOVAKIA	5,000		
	National	SLOVENIA	5		
	National	UNITED KINGDOM	1,000	4,000	
	National	UNITED KINGDOM	1	15,000	
	National	UNITED KINGDOM	5,000	4,000	
	National	BULGARIA	1,000	4,000	
	National	ROMANIA	1	4	
	TUR	TURKEY	5,000		
	National	LITHUANIA	1,000	4,000	
	National	CROATIA	1,000	4,000	
	EU	None	5		Indicative
free crystalline silica (\emptyset <10 μ)	National	SWEDEN	0,100		SWEDEN, respirable aerosol
	National	NORWAY	0,100		K 7
	NDS	POLAND	2,000		frakcja wdychalna
	NDS	POLAND	0,300		frakcja respirabilna
	National	DENMARK	0,3	0,600	DENMARK, inhalable aerosol inhalable aerosol
	National	DENMARK	0,100	0,200	DENMARK, respirable aerosol respirable aerosol
	EU	None	0,1		A2 (R) - Pulm fibrosis, lung cancer
	ACGIH	None	0,025		(R), A2 - Pulm fibrosis, lung cancer
	National	AUSTRIA	0,150		A

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency	Remark
calcium formate	544-17-2	1,5 mg/kg	Soil		
		13,4 mg/kg	Freshwater sediments		
		0,2 mg/l	Marine water		
		2 mg/l	Fresh Water		
		10 mg/l	Intermittent release		
		1,34 mg/kg	Marine water sediments		
		13,4 mg/kg	Freshwater sediments		
		2,21 mg/l	Microorganisms in sewage treatments		
calcium hydroxide	1305-62-0	0,49 mg/l	Fresh Water		

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Industrial	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
calcium formate	544-17-2			23,9 mg/kg	Human Oral		Long Term, systemic effects
		337 mg/m3		83,2 mg/m3	Human Inhalation		Long Term, systemic effects
		337 mg/m3		83,2 mg/m3	Human Inhalation		Short Term, systemic effects
		4780 mg/kg		2390 mg/kg	Human Dermal		Short Term, systemic effects
		4780 mg/kg		2390 mg/kg	Human Dermal		Long Term, systemic effects
		16,7 mg/cm2		8,3 mg/kg	Human Dermal		Short Term, local effects
		16,7 mg/cm2		8,3 mg/kg	Human Dermal		Long Term, local 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 $\geq 0,5\text{mm}$; 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 $\geq 480\text{min}$.

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.

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour: powder white/grey
Odour: cement like
Odour threshold: Not available
pH: Not available
pH (water dispersion, 10%): 12.00
Melting point / freezing point: Not available
Initial boiling point and boiling range: Not available
Flash point: Not available
Evaporation rate: Not available
Upper/lower flammability or explosive limits: Not available
Vapour density: Not available
Vapour pressure: Not available
Relative density: Not available
Solubility in water: DXE2H_STR2LOV_276
Partition coefficient (n-octanol/water): Not available - This product is a mixture
Auto-ignition temperature: Not available - No explosive or spontaneous ignition in contact with air at room temperature
Decomposition temperature: Not available
Viscosity: Not available
Explosive properties: == - No components with explosive properties
Oxidizing properties: Not available - No component with oxidizing properties
Solid/gas flammability: Not available

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:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

calcium formate	a) acute toxicity	LD50 Oral Rat = 2650 mg/kg LD50 Skin > 2000 mg/kg LC50 Inhalation Rat = 0,64 mg/l 4h LD50 Oral Rat = 2650 mg/kg
	g) reproductive toxicity	NOAEL Oral Rat = 956 mg/kg
calcium hydroxide	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg LD50 Skin Rabbit > 2500 mg/kg LD50 Oral Rat = 7340 mg/kg
free crystalline silica (Ø <10 µ)	a) acute toxicity	LD50 Oral Rat = 500 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as

N.A.

- a) acute toxicity
 - b) skin corrosion/irritation
 - c) serious eye damage/irritation
 - d) respiratory or skin sensitisation
 - e) germ cell mutagenicity
 - f) carcinogenicity
 - g) reproductive toxicity
 - h) STOT-single exposure
- Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
 - j) aspiration hazard

SECTION 12: Ecological information**12.1. Toxicity**

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

Eco-Toxicological Information:

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
calcium formate	CAS: 544-17-2 - EINECS: 208-863-7	<ul style="list-style-type: none"> a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Bacteria > 1000 mg/L 3 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 48 c) Bacteria toxicity : EC50 Bacteria > 22,1 mg/L b) Aquatic chronic toxicity : NOEC Daphnia > 100 mg/L - 21 d b) Aquatic chronic toxicity : NOEC Algae > 500 mg/L a) Aquatic acute toxicity : EC50 Algae > 500 mg/L 72 a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio >= 1000 mg/L 96h IUCLID
calcium hydroxide	CAS: 1305-62-0 - EINECS: 215-137-3	<ul style="list-style-type: none"> a) Aquatic acute toxicity : LC50 Fish = 50,6 mg/L 96 a) Aquatic acute toxicity : LC50 Fish = 457 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia = 49,1 mg/L 48 a) Aquatic acute toxicity : EC50 Algae = 184,57 mg/L 72 e) Plant toxicity : NOEC = 1080 mg/kg - 21 d

12.2. Persistence and degradability

Not available

12.3. Bioaccumulative potential

Not available

12.4. Mobility in soil

Not available

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6. Other adverse effects

Not available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

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

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Product:

Do not dispose of waste into sewers.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to an authorized waste disposal service.
Contaminated packaging:
Empty remaining content.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

Not available

14.2. UN proper shipping name

Not available

14.3. Transport hazard class(es)

Not available

14.4. Packing group

Not available

14.5. Environmental hazards

Not available

14.6. Special precautions for user

Not available

Road and Rail (ADR-RID) :

Not available

Air (IATA) :

Not available

Sea (IMDG) :

Not available

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

Not available

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. 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)

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

Not available

German Water Hazard Class (WGK)

Not available

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, 40

Restrictions related to the substances contained: 69

SVHC Substances:

No data available

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2

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
3.2/2	Calculation method
3.3/1	Calculation method
3.4.2/1B	Calculation method
3.8/3	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:

- 5. FIRE-FIGHTING MEASURES
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION