Safety Data Sheet
MAPEFLEX JOINT FILLER EP 90/50 PART B
Safety Data Sheet dated: 06/18/2021 - version 1
Date of first edition: 06/18/2021

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: MAPEFLEX JOINT FILLER EP 90/50 PART B

Trade code: 902UR9999

Recommended use of the chemical and restrictions on use

Recommended use: Hardener for epoxy products

Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Responsible: RDProductSafety@mapei.com

Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Acute Tox. 4	Harmful if swallowed.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1A	May cause an allergic skin reaction.
Repr. 1B	May damage fertility or the unborn child.
Aquatic Acute 1	Very toxic to aquatic life.
Aquatic Chronic 1	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1C	Causes severe skin burns and eye damage.

Label elements

Hazard pictograms and Signal Word

Danger

Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H360	May damage fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very 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 skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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).
P330	Rinse mouth.
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.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not available

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
50-75 %	4-nonylphenol, branched; Isononylphenol	CAS:84852-15-3	Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Repr. 2, H361	
10-20 %	polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether)	CAS:9046-10-0	Eye Dam. 1, H318; Aquatic Acute 3, H402; Acute Tox. 4, H302; Skin Corr. 1B, H314; Aquatic Chronic 3, H412	
5-10 %	aminoethylpiperazine; 2-piperazin-1-ylethylamine	CAS:140-31-8	Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317; Eye Dam. 1, H318; Repr. 1B, H360	
2.5-5 %	benzyl alcohol; benzenemethanol	CAS:100-51-6	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2A, H319	
1-2.5 %	2,4,6-tri(dimethylaminomethyl)phenol; Mesitol, alpha2,alpha4,alpha6-tris(dimethylamino)-	CAS:90-72-2	Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412	

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Obtain medical attention if skin related symptoms persist.

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 opthalmologist

immediately.
Protect uninjured eye.
In case of Ingestion:
Give nothing to eat or drink.
In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Eye irritation
Eye damages
Skin Irritation
Erythema

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)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:
Water.
Carbon dioxide (CO_2).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Hazardous combustion products: Not available
Explosive properties: Not Relevant
Oxidizing properties: Not Relevant

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove persons to safety.
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
Retain contaminated washing water and dispose it.

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

Store cool and dry.
Storage temperature: Not available
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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
benzyl alcohol; benzenemethanol	MAK	GERMANY		22	5				
	MAK	SWITZERLAND		22	5				

Appropriate engineering controls: Not available

Individual protection measures

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; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Use impervious 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 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Liquid Amber

Odour: Like: Amines

Odour threshold: Not Relevant

pH: 11.00

Melting point / freezing point: Not Relevant

Initial boiling point and boiling range: Not Relevant

Flash point: 100 °C (212 °F)

Evaporation rate: Not Relevant

Upper/lower flammability or explosive limits: Not Relevant

Vapour density: Not Relevant

Vapour pressure: Not Relevant

Relative density: 0.97 g/cm3

Solubility in water: partly soluble

Solubility in oil: Not Relevant

Partition coefficient (n-octanol/water): Not Relevant

Auto-ignition temperature: Not Relevant

Decomposition temperature: Not Relevant

Viscosity: 1.62 PA-s

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Solid/gas flammability: Not Relevant

Other information

Substance Groups relevant properties Not Relevant

Miscibility: Not Relevant

Fat Solubility: Not Relevant

Conductivity: Not Relevant

10. STABILITY AND REACTIVITY

Reactivity

Stable

Chemical stability

Data not available.

Possibility of hazardous reactions

It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth) and powerful reducing agents.

It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.

It may catch fire on contact with powerful oxidising agents.

Conditions to avoid

No data available

Incompatible materials

Data not available.

Hazardous decomposition products

Data not available.

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11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

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 of the main substances found in the product:

4-nonylphenol, branched; Isononylphenol	a) acute toxicity	LD50 Oral Rat 1300 mg/kg
		LD50 Skin Rabbit > 2000 mg/kg
		LD50 Skin Rabbit = 2000 mg/kg
		LD50 Oral Rat = 1300 mg/kg
polyoxypropylenediamine ; polypropylene glycol bis (2-aminipropyl ether)	a) acute toxicity	LD50 Skin Rabbit = 2980 mg/kg
		LD50 Oral Rat = 242 mg/kg
aminoethylpiperazine; 2-piperazin-1-ylethylamine	a) acute toxicity	LD50 Skin Rabbit = 880 µL/kg
		LD50 Oral Rat = 2140 mg/kg
		LD50 Oral Rat = 2140 µL/kg
		LD50 Skin Rabbit = 880 µL/kg
benzyl alcohol; benzenemethanol	a) acute toxicity	LD50 Skin Rabbit = 2000.00000 mg/kg
		LC50 Inhalation Rat = 8.80000 mg/l 4h
		LD50 Oral Rat = 1230 mg/kg
		LD50 Skin Rabbit = 2 g/kg
		LD50 Oral Rat = 1230 mg/kg
2,4,6-tri(dimethylaminomethyl) phenol; Mesitol, alpha2,alpha4,alpha6-tris(dimethylamino)-	a) acute toxicity	LD50 Skin Rat = 1280 mg/kg
		LD50 Oral Rat = 1000 mg/kg
		LD50 Skin Rat = 1280 mg/kg
		LD50 Oral Rat = 1200 mg/kg

If not differently specified, the information required in the regulation and 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

Substance(s) listed on the IARC Monographs:

None

Substance(s) listed as OSHA Carcinogen(s):

None

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

None

12. ECOLOGICAL INFORMATION

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
4-nonylphenol, branched; Isononylphenol	CAS: 84852-15-3	LC50 Fish Pimephales promelas 0.135 mg/L 96h ,,Holcombe, G.W., Phipps, G.L., Knuth, M.L. and Felhaber, T. (1984) Environ. Pollut. (Series A) 35, 367-381 LC100 Fish Leuciscus idus 1.1 mg/L 48h ,,Huels study, 1988 (unpublished) LC50 Fish Leuciscus idus 0.95 mg/L 48h ,,Huels study, 1988 (unpublished) LOEC Fish Pimephales promelas 14 µg/L 33d ,,Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath NOEC Fish Pimephales promelas 7.4 µg/L 33d ,,Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath EC100 Daphnia Daphnia magna > 400 µg/L 48h ,,Huels report No. DK-522, 1992 (unpublished) EC0 Daphnia Daphnia magna < 100 µg/L 48h ,,Huels report No. DK-522, 1992 (unpublished) EC50 Daphnia Daphnia magna 140 µg/L 48h ,,Huels report No. DK-522, 1992 (unpublished) LOEC Daphnia Daphnia magna > 100 µg/L 21d ,,Huels report No. DL-143, 1992 (unpublished) NOEC Daphnia Daphnia magna 0.024 mg/L 21d ICI PLC (1991) Nonyl Phenol: Chronic Toxicity to Daphnia Magna Report No: BLS1319/B (Interim) BL4176/B (Final) EC90 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 3.2 mg/L 72h Huels study (unpublished) EC10 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 0.5 mg/L 72h Huels study (unpublished)

		EC50 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 1.3 mg/L 72h Huels study (unpublished) a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 0.135 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 0.1351 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 0.14 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0.36 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0.16 mg/L 72h EPA a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 1.3 mg/L 72h IUCLID
aminoethylpiperazine; 2-piperazin-1-ylethylamine	CAS: 140-31-8	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 1950 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata > 1000 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss >= 100 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 32 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 495 mg/L 72h IUCLID
benzyl alcohol; benzenemethanol	CAS: 100-51-6	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia water flea = 23 mg/L 48h

Persistence and degradability

Not available

Bioaccumulative potential

Not available

Mobility in soil

Not available

Other adverse effects

Not available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

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.

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.

14. TRANSPORT INFORMATION

UN number

ADR-UN number: 2735

DOT-UN Number: UN2735

IATA-Un number: 2735

IMDG-Un number: 2735

UN proper shipping name

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched; Isononylphenol - polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether))

DOT-Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched; Isononylphenol - polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether))

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched; Isononylphenol - polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether))

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (4-nonylphenol, branched; Isononylphenol - polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether))

Transport hazard class(es)

ADR-Class: 8

DOT-Hazard Class: 8

IATA-Class: 8

IMDG-Class: 8

Packing group

ADR-Packing Group: III

DOT-Packing group: III

IATA-Packing group: III

IMDG-Packing group: III

Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Not available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not available

Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): IB3, T7, TP1, TP28

DOT-Label(s): 8

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

Road and Rail (ADR-RID) :

ADR-Label: 8

ADR-Hazard identification number: 80

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 SGG18

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

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

4-nonylphenol, branched; Isononylphenol	is listed in TSCA	Section 8b Section 8a - PAIR Section 5a - SNUR Section 12b
polyoxypropylenediamine; polypropylene glycol bis (2-aminipropyl ether)	is listed in TSCA	Section 8b
aminoethylpiperazine; 2-piperazin-1-ylethylamine	is listed in TSCA	Section 8b
benzyl alcohol; benzenemethanol	is listed in TSCA	Section 8b
2,4,6-tri(dimethylaminomethyl)phenol; Mesitol, alpha2,alpha4,alpha6-tris(dimethylamino)-	is listed in TSCA	Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

No substances listed

Section 313 - Toxic chemical list:

4-nonylphenol, branched; Isononylphenol

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

No substances listed

CAA - Clean Air Act

CAA listed substances:

benzyl alcohol; benzenemethanol	is listed in CAA	Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

No substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

No substances listed

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

aminoethylpiperazine; 2-piperazin-1-ylethylamine

benzyl alcohol; benzenemethanol

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

aminoethylpiperazine; 2-piperazin-1-ylethylamine

benzyl alcohol; benzenemethanol

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

aminoethylpiperazine; 2-piperazin-1-ylethylamine

Canada - Federal regulations

DSL - Domestic Substances List

DSL (Domestic Substances List)

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL (Non Domestic Substances List)

No substances listed

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

16. OTHER INFORMATION

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Additional classification information

NFPA Health: 3 = Serious
NFPA Flammability: 1 = Combustible if heated
NFPA Reactivity: 0 = Minimal
NFPA Special Risk: NONE

NFPA

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

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.

Code	Description
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
CLP: Classification, Labeling, Packaging.
EINECS: European Inventory of Existing Commercial Chemical Substances.
INCI: International Nomenclature of Cosmetic Ingredients.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.
KSt: Explosion coefficient.