

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.09.2019

Version number 6

Revision: 20.09.2019

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

- 1.1 Product identifier
- Trade name: **KEMPERTEC FPO-Grundierung**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 - Identified use: intended for professional use only!
- Application of the substance / the mixture: Priming
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KEMPER SYSTEM GmbH & Co. KG
Holländische Strasse 32-36
34246 Vellmar
Deutschland / Germany
Telefon: +49 (0)561 / 8295-0
Telefax: +49 (0)561 / 8295-5110
E-Mail: MSDS@KEMPER-SYSTEM.COM
- Further information obtainable from: research & development
- 1.4 Emergency telephone number: Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
Langenbeckstraße 1; Gebäude 601; 55131 Mainz
Tel. Nr.: +49 (0)6131 / 19 24 0
Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2	H225	Highly flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Repr. 2	H361d	Suspected of damaging the unborn child.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.
STOT RE 2	H373	May cause damage to the hearing organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS02 GHS07 GHS08

- Signal word
- Hazard-determining components of labelling:

Danger

toluene
xylene
ethylbenzene
cyclohexane

- Hazard statements

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H361d Suspected of damaging the unborn child.
- H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
- H373 May cause damage to the hearing organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.
- H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P331 Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:

EUH208 Contains p-tert-butylphenyl 1-(2,3-epoxy)propyl ether. May produce an allergic reaction.

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- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures

- Description: Mixture: consisting of the following components.

- Dangerous components:

CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3 Reg.nr.: 01-2119471310-51	toluene Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	12.5-25%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Aquatic Chronic 3, H412	2.5-10%
CAS: 123-42-2 EINECS: 204-626-7 Index number: 603-016-00-1 Reg.nr.: 012119473975-21	4-hydroxy-4-methylpentan-2-one Flam. Liq. 3, H226; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29	n-butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336	2.5-10%
CAS: 110-82-7 EINECS: 203-806-2 Index number: 601-017-00-1 Reg.nr.: 01-2119463273-41	cyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	0.5-2.5%
CAS: 3101-60-8 EINECS: 221-453-2 Reg.nr.: 01-2119959496-20	p-tert-butylphenyl 1-(2,3-epoxy)propyl ether Aquatic Chronic 2, H411; Skin Sens. 1, H317	<0.5%
CAS: 67-66-3 EINECS: 200-663-8 Index number: 602-006-00-4 Reg.nr.: 01-2119486657-20	trichloromethane Acute Tox. 3, H331; Carc. 2, H351; Repr. 2, H361d; STOT RE 1, H372; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<0.5%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Do not leave affected persons unattended.

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air; consult doctor in case of complaints.

- After inhalation:

- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment in case of complaints.

- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Protect unharmed eye.

- After swallowing:

If symptoms persist consult doctor.

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

No further relevant information available.

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- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
- Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents:** Water with full jet
- 5.2 Special hazards arising from the substance or mixture** In case of fire, the following can be released:
CO₂
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Hydrogen chloride (HCl)
Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters**
- Protective equipment:** Wear self-contained respiratory protective device.
Mouth respiratory protective device.
Do not inhale explosion gases or combustion gases.
- Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures** Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- 6.2 Environmental precautions:** Suppress gases/fumes/haze with water spray.
Inform respective authorities in case of seepage into water course or sewage system.
Prevent from spreading (e.g. by damming-in or oil barriers).
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- 6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- 7.2 Conditions for safe storage, including any incompatibilities**
- Storage:**
- Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- Information about storage in one common storage facility:** Store away from foodstuffs.
- Further information about storage conditions:** Protect from frost.
Store in dry conditions.
Keep container tightly sealed.
Recommended storage temperature: 5-30 °C
- Storage class:** 3

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- 7.3 Specific end use(s)

No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities:

No further data; see item 7.

- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

108-88-3 toluene

WEL	Short-term value: 384 mg/m ³ , 100 ppm
	Long-term value: 191 mg/m ³ , 50 ppm
	Sk

1330-20-7 xylene

WEL	Short-term value: 441 mg/m ³ , 100 ppm
	Long-term value: 220 mg/m ³ , 50 ppm
	Sk; BMGV

100-41-4 ethylbenzene

WEL	Short-term value: 552 mg/m ³ , 125 ppm
	Long-term value: 441 mg/m ³ , 100 ppm
	Sk

123-42-2 4-hydroxy-4-methylpentan-2-one

WEL	Short-term value: 362 mg/m ³ , 75 ppm
	Long-term value: 241 mg/m ³ , 50 ppm

123-86-4 n-butyl acetate

WEL	Short-term value: 966 mg/m ³ , 200 ppm
	Long-term value: 724 mg/m ³ , 150 ppm

110-82-7 cyclohexane

WEL	Short-term value: 1050 mg/m ³ , 300 ppm
	Long-term value: 350 mg/m ³ , 100 ppm

67-66-3 trichloromethane

WEL	Long-term value: 9.9 mg/m ³ , 2 ppm
	Sk

- Regulatory information

WEL: EH40/2018

- DNELs

1330-20-7 xylene

Inhalative	Acute - systemic effects	221 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
	Long term - systemic effects	221 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))

100-41-4 ethylbenzene

Inhalative	Long term - systemic effects	77 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
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- Ingredients with biological limit values:

1330-20-7 xylene

BMGV	650 mmol/mol creatinine
	Medium: urine
	Sampling time: post shift
	Parameter: methyl hippuric acid

- Additional information:

The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- Respiratory protection:

When used properly and under normal conditions, breathing protection is not required.
Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2

Respiratory protection - Gas filters and combination filters according to (DIN EN 141)

- Protection of hands:



Protective gloves

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Only use chemical-protective gloves with CE-labelling of category III.
Check protective gloves prior to each use for their proper condition.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
After use of gloves apply skin-cleaning agents and skin cosmetics.

- Material of gloves

Recommended materials:
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.8 mm
Penetration time (min.): < 480
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.1 mm
Penetration time (min.): < 10

- Eye protection:



Tightly sealed goggles

- Body protection:

Protective goggles and facial protection - Classification according to EN 166
protective clothing (EN 13034)

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Fluid
Colour: Light yellow
- Odour: Like aromatic solvents
- Odour threshold: Not determined.

- pH-value: Not determined.

- Change in condition

Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 81 °C

- Flash point: -18 °C

- Flammability (solid, gas): Not applicable.

- Ignition temperature: 370 °C

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- Explosion limits:

Lower: Not determined.
Upper: Not determined.

- Density at 20 °C: 0.9 g/cm³

- Relative density Not determined.

- Vapour density Not determined.

- Evaporation rate Not determined.

- Solubility in / Miscibility with water:

Not miscible or difficult to mix.

- Partition coefficient: n-octanol/water: Not determined.

- Viscosity:

Dynamic: Not determined.
Kinematic at 20 °C: 10 s (DIN 53211/4)

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- Solvent content:
VOC (EC) 89.60 %
- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions Reacts with peroxides.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: Carbon monoxide
Carbon dioxide
Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

108-88-3 toluene

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	28.1 mg/l (rat)

1330-20-7 xylene

Oral	LD50	5,251 mg/kg (mouse) 4,300 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	21.7 mg/l (rat)

100-41-4 ethylbenzene

Oral	LD50	3,500 mg/kg (rat) (AMA Archives of Industrial Health. 14/387; 1956)
Dermal	LD50	15,400 mg/kg (rabbit) (Food and Cosmetics Toxicology. 13/803; 1975)
Inhalative	LC50/4 h	11 mg/l (ATE)

123-42-2 4-hydroxy-4-methylpentan-2-one

Oral	LD50	4,000 mg/kg (rat) (OECD Guideline 401 (Acute Oral Toxicity))
Dermal	LD50	13,500 mg/kg (rab) (OECD Guideline 402 (Acute Dermal Toxicity))

123-86-4 n-butyl acetate

Oral	LD50	10,760 mg/kg (rat)
Dermal	LD50	14,112 mg/kg (rat)
Inhalative	LC50/4 h	>21 mg/l (rat)

110-82-7 cyclohexane

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

67-66-3 trichloromethane

Oral	LD50	908 mg/kg (rat)
Dermal	LD50	75 mg/kg (rat)
Inhalative	LC50/4 h	3 mg/l (ATE)

- Primary irritant effect:
- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Repr. 2
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Suspected of damaging the unborn child.
- STOT-single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

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- STOT-repeated exposure
- Aspiration hazard

May cause damage to the hearing organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.

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SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

1330-20-7 xylene

LC50/96 h	26.7 mg/l (Pimephales promelas)
LC50	2.6 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h; OECD 203)
EC50	2.2 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
IC50	2.2 mg/l (ALGAE)
NOEC	157 mg/l (Belebtschlamm) (OECD 209)
	1.17 mg/l (Ceriodaphnia dubia) (7d; US EPA 600/4-91/003)
	>1.3 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (56d)
IC50	1 mg/l (Daphnia magna) (24h; OECD 202)

123-86-4 n-butyl acetate

LC50/96 h	>10-100 mg/l (PISCIS - Fisch)
NOEC	200 mg/l (DESMODESMUS SUBSPICATUS)
EC50	>10-100 mg/l (daphnia)
EC50	>100 mg/l (ALGAE)
	647.7 mg/l (DESMODESMUS SUBSPICATUS)
EC50	72.8 mg/l (daphnia)
IC50	356 mg/l (Tetrahymena)

110-82-7 cyclohexane

LC50	55 mg/l (Leuciscus idus melanotus) (48h)
EC50	3.78 mg/l (Daphnia magna) (48h)
EC50	200 mg/l (Photobacterium phosphoreum) (5 min.)
EC50	>500 mg/l (DESMODESMUS SUBSPICATUS) (72 h)

- 12.2 Persistence and degradability

No further relevant information available.

- 12.3 Bioaccumulative potential

No further relevant information available.

- 12.4 Mobility in soil

No further relevant information available.

- Ecotoxicological effects:

- Remark:

Harmful to fish

- Additional ecological information:

- General notes:

Harmful to aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

- 12.5 Results of PBT and vPvB assessment

- PBT:

Not applicable.

- vPvB:

Not applicable.

- 12.6 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods

- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal according to official regulations

- European waste catalogue

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09

- Uncleaned packaging:

- Recommendation:

Disposal must be made according to official regulations.

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SECTION 14: Transport information

- 14.1 UN-Number
- ADR, IMDG, IATA

UN1263

- 14.2 UN proper shipping name
- ADR
- IMDG, IATA

1263 PAINT
PAINT

- 14.3 Transport hazard class(es)
- ADR



- Class 3 (F1) Flammable liquids.
- Label 3

- IMDG, IATA



- Class 3 Flammable liquids.
- Label 3

- 14.4 Packing group
- ADR, IMDG, IATA

II

- 14.5 Environmental hazards:

Not applicable.

- 14.6 Special precautions for user
- Danger code (Kemler):
- EMS Number:
- Stowage Category

Warning: Flammable liquids.
33
F-E, S-E
B

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

Not applicable.

- Transport/Additional information:

- ADR
- Limited quantities (LQ)
- Excepted quantities (EQ)

5L
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

- Transport category
- Tunnel restriction code

2
D/E

- IMDG
- Limited quantities (LQ)
- Excepted quantities (EQ)

5L
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

- UN "Model Regulation":

UN 1263 PAINT, 3, II

SECTION 15: Regulatory information

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

- Directive 2012/18/EU

- Named dangerous substances - ANNEX I
- Seveso category

None of the ingredients is listed.
P5c FLAMMABLE LIQUIDS

- Qualifying quantity (tonnes) for the application of lower-tier requirements

5,000 t

- Qualifying quantity (tonnes) for the application of upper-tier requirements

50,000 t

- REGULATION (EC) No 1907/2006 ANNEX XVII

Conditions of restriction: 3, 48, 57

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- Regulation (EU) No 649/2012

67-66-3 | trichloromethane

Annex I Part 1

- National regulations:**- Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.
 Employment restrictions concerning women of child-bearing age must be observed.

- 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H361d Suspected of damaging the unborn child.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H373 May cause damage to the hearing organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

- Department issuing SDS:**- Contact:****- Abbreviations and acronyms:**

research & development

research & development

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Internet:

- www.echa.europa.eu- www.baua.de

IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:

- www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp- www.dguv.de/ifa/gestis/gestis-dnel-liste**- Sources**

* **- Data compared to the previous version altered.**