Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.09.2020 Version number 4 Revision: 22.09.2020

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

- **1.1 Product identifier**
- **Trade name:** **KEMPERDUR Deko**
- **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** Coating
- **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. 3	H226	Flammable liquid and vapour.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS02 GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**

aliphatic polyisocyanate
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate
Phenol, methylstyrenated
Isophorondiisocyanate homopolymer
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
2-n-butyl-benzo[d]isothiazol-3-one

- **Hazard statements**

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:** EUH204 Contains isocyanates. May produce an allergic reaction.
- **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 of substances listed below with nonhazardous additions.
Mixture: consisting of the following components.

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- **Dangerous components:**		
CAS: 426822-87-9 EC number: 642-395-8	aliphatic polyisocyanate Skin Sens. 1, H317	25-50%
EC number: 918-668-5 Reg.nr.: 01-2119455851-35	hydrocarbons, C9, aromatic Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336	12.5-25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226; STOT SE 3, H336	2.5-10%
CAS: 140921-24-0 ELINCS: 411-700-4 Index number: 616-079-00-5 Reg.nr.: 01-2119890830-32	1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate Skin Sens. 1, H317	2.5-10%
CAS: 68512-30-1 EINECS: 270-966-8 Reg.nr.: 01-2119555274-38	Phenol, methylstyrenated Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 53880-05-0 EC number: 931-312-3 Reg.nr.: 01-2119488734-24	Isophorondiisocyanate homopolymer Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 122-51-0 EINECS: 204-550-4 Reg.nr.: 01-2119438191-46	triethoxymethane Flam. Liq. 3, H226	0.5-2.5%
CAS: 4098-71-9 EINECS: 223-861-6 Index number: 615-008-00-5 Reg.nr.: 01-2119490408-31	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate Acute Tox. 1, H330; Resp. Sens. 1, H334; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	<0.5%
CAS: 4299-07-4 ELINCS: 420-590-7 Index number: 606-079-00-3 Reg.nr.: 01-0000016721-74	2-n-butyl-benzo[d]isothiazol-3-one Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	0-<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.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
- **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.
- **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** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

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- **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** Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
Avoid contact with skin and eyes
- **6.2 Environmental precautions:** 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).
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.
- **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:** Store in dry conditions.
Protect from frost.
Keep container tightly sealed.
Recommended storage temperature: 5-30 °C
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

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:**	
108-65-6 2-methoxy-1-methylethyl acetate	
WEL	Short-term value: 548 mg/m³, 100 ppm Long-term value: 274 mg/m³, 50 ppm Sk
4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	
WEL	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

- **Regulatory information** WEL: EH40/2020

- **Ingredients with biological limit values:**	
4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	
BMGV	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine

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- **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

Check protective gloves prior to each use for their proper condition.
Only use chemical-protective gloves with CE-labelling of category III.
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: ≥ 0.5 mm
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 16523-1:2015 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

Protective goggles and facial protection - Classification according to EN 166
- **Body protection:** Protective work clothing
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:	According to product specification
- Odour:	Characteristic
- Odour threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
- Flash point:	36 °C
- Flammability (solid, gas):	Not applicable.
- 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.

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- **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
- **Density at 20 °C:**	1.29 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 23 °C:	106 s (ISO 6 mm DIN EN ISO 2431)
- **Solvent content:**	
VOC (EC)	23.40 %
- **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**	No dangerous reactions known.
- **10.4 Conditions to avoid**	No further relevant information available.
- **10.5 Incompatible materials:**	No further relevant information available.
- **10.6 Hazardous decomposition products:**	No dangerous decomposition products known.

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:**		
hydrocarbons, C9, aromatic		
Oral	LD50	>3,492 mg/kg (rat) (OECD 401)
Dermal	LD50	>3,160 mg/kg (rabbit) (OECD 402)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8,532 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)
140921-24-0 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
68512-30-1 Phenol, methylstyrenated		
Oral	LD50	>2,000 mg/kg (rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)
53880-05-0 Isophorondiisocyanate homopolymer		
Oral	LD50	>14,000 mg/kg (rat) (OECD 401)
122-51-0 triethoxymethane		
Oral	LD50	7,060 mg/kg (rat)
Dermal	LD50	18,000 mg/kg (rabbit)
Inhalative	LC50/4 h	4,000 mg/l (rat)
4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate		
Inhalative	LC50/4 h	0.05 mg/l (ATE)
4299-07-4 2-n-butyl-benzo[d]isothiazol-3-one		
Oral	LD50	>2,000 mg/kg (rat)

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

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **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** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**	
hydrocarbons, C9, aromatic	
LL 50	9.2 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (96h; OECD 203)
EL50	2.9 mg/l (Pseudokirchneriella subcapitata) (72h; OECD 201)
	3.2 mg/l (Daphnia magna) (48h; OECD 202)
EC50	>99 mg/l (Belebtschlamm) (10 min.; OECD 209)
108-65-6 2-methoxy-1-methylethyl acetate	
LC50/96 h	>100 mg/l (oryzias latipes (Ricefish))
	161 mg/l (fis)
140921-24-0 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate	
LC50/96 h	316 mg/l (Danio rerio (Zebrabärbling)) (OECD 203)
EC50	1.77 mg/l (Bakterien) (activated sludge; ISO 8192-1986 E)
IC50	43 mg/l (DESMODESMUS SUBSPICATUS) (72h; OECD 201)
EC50	193 mg/l (Daphnia magna) (48h; OECD 202)
68512-30-1 Phenol, methylstyrenated	
ErC50	15 mg/l (daphnia) (OECD TG 201)
LC50/96 h	25.8 mg/l (daphnia) (OECD TG 203)
EC50	14-51 mg/l (daphnia) (OECD TG 202)
53880-05-0 Isophorondiisocyanate homopolymer	
LC50/96 h	>1.51 mg/l (Cyprinus Carpio) (Richtlinie 67/548/EWG, Anhang V, C.1.)
EC50	>3.36 mg/l (Daphnia magna) (OECD 202)
EC50	>10,000 mg/l (Belebtschlamm) (OECD 209)
4299-07-4 2-n-butyl-benzo[d]isothiazol-3-one	
ErC50	0.45 mg/l (ALGAE - Grünalge) (72h)
LC50/96 h	0.15 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (OECD 203)
EC50	93 mg/l (Daphnia magna) (OECD 202)

- **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.
- **Ecotoxical effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** Harmful to aquatic organisms
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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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.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, ADN, IMDG** Void
- **IATA** UN1263

- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG** Void
- **IATA** PAINT

- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG**
- **Class** Void

- **IATA**

- **Class** 3 Flammable liquids.
- **Label** 3

- **14.4 Packing group**
- **ADR, IMDG** Void
- **IATA** III

- **14.5 Environmental hazards:**
- **Marine pollutant:** No

- **14.6 Special precautions for user** Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

- **Transport/Additional information:**

- **ADR**
- **Remarks:** Kein Gut der Kl. 3 gemäß 2.2.3.1.5 ADR / 2.3.2.5 IMDG-Code
ADR IMDG: Verpackung > 450 l = UN 1263 - Kl. 3 - Farbe - VPIII
Außerhalb ADR / IMDG = UN 1263 - Kl. 3 - Farbe - VPIII

Not goods of cl. 3 in accordance with 2.2.3.1.5 ADR / 2.3.2.5 IMDG-Code
ADR/IMDG: Packaging > 450 l = UN 1263 - Cl. 3 - Paint - PGIII
Outside ADR / IMDG = UN 1263 - Cl. 3 - Paint - PGIII

- **UN "Model Regulation":** Void

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** None of the ingredients is listed.
- **Seveso category** 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

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- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **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**
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
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:** research & development
- **Contact:** research & development
- **Abbreviations and acronyms:**
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 1: Acute toxicity - inhalation – Category 1
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
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
- **Sources**
- 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
- *** Data compared to the previous version altered.**