

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.07.2020


Version number 5

Revision: 06.07.2020

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

- 1.1 Product identifier
- Trade name: **KEMPEROL 022 (A)**
- 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
 - Waterproofing
- 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
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
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

GHS07
- Signal word
Warning
- Hazard-determining components of labelling:
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
1,4-bis(2,3-epoxypropoxy)butane
Bisphenol F epichlorohydrin resin MW <700
- Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Additional information:
EUH205 Contains epoxy constituents. 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: consisting of the following components.

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- Dangerous components:		
CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	barium sulphate, natural substance with a Community workplace exposure limit	12.5-25%
CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4 Reg.nr.: 01-2119485289-22	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	12.5-25%
CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	10-12.5%
CAS: 9003-36-5 NLP: 500-006-8 Reg.nr.: 01-2119454392-40	Bisphenol F epichlorhydrin resin MW <700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	2.5-10%
CAS: 2425-79-8 EINECS: 219-371-7 Index number: 603-072-00-7 Reg.nr.: 01-2119494060-45	1,4-bis(2,3-epoxypropoxy)butane Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 84852-15-3 EINECS: 284-325-5 Index number: 601-053-00-8 Reg.nr.: 01-2119510715-45	4-nonylphenol, branched Repr. 2, H361fd; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	<0.5%

- SVHC

84852-15-3 | 4-nonylphenol, branched

- 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.

- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **6.2 Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Prevent from spreading (e.g. by damming-in or oil barriers).
- **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.
Do not flush with water or aqueous cleansing agents
See Section 7 for information on safe handling.
- **6.4 Reference to other sections** 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.
- **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
10
- **Storage class:** 10
- **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:**

7727-43-7 barium sulphate, natural

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
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- **Regulatory information** WEL: EH40/2020

- **DNELs**

7727-43-7 barium sulphate, natural

Inhalative	Acute - systemic effects	10 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
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68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Inhalative	Acute - systemic effects	3.6 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
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- **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)

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- 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: 101 °C

- Flammability (solid, gas): Not applicable.

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product does not present an explosion hazard.

- Explosion limits:

Lower: Not determined.
Upper: Not determined.

- Density: Not determined.

- 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.

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- Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
- Solvent content:	
VOC (EC)	2.60 %
- 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	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:

7727-43-7 barium sulphate, natural

Oral	LD50	>15,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

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

Oral	LD50	19,200 mg/kg (rat)
Dermal	LD50	>4,500 mg/kg (rabbit)

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Oral	LD50	11,400 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LCLo	1 mg/l (rat)

9003-36-5 Bisphenol F epichlorhydrin resin MW <700

Oral	LD50	23,800 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

2425-79-8 1,4-bis(2,3-epoxypropoxy)butane

Oral	LD50	500 mg/kg (ATE)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

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Oral	LD50	500 mg/kg (ATE)
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- Primary irritant effect:	
- Skin corrosion/irritation	Causes skin irritation.
- Serious eye damage/irritation	Causes serious eye irritation.
- Respiratory or skin sensitisation	May cause an allergic skin reaction.
- CMR effects (carcinogenicity, 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.

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SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

7727-43-7 barium sulphate, natural

EC50 32 mg/l (Daphnia magna) (Ba-Ion; 48 h)

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

EbC50 843 mg/l (Pseudokirchneriella subcapitata)

LC50/96 h 1,800 mg/l (LEPOMUS MACROCHIRUS)

>5,000 mg/l (Oncorhynchus mykiss (Regenbogenforelle))

NOEC 500 mg/l (Pseudokirchneriella subcapitata) (NOEC (72 hr))

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

IC50 >42.6 mg/l (Bakterien) (18h)

LC50/96 h 1.5 mg/l (fish) (OECD 203 (96 hr))

1.5 mg/l (Oncorhynchus mykiss (Regenbogenforelle))

EC50 (24) 3.6 mg/l (dpa)

EC50 1.8 mg/l (Daphnia magna) (48h)

EC50 9.4 mg/l (ALGAE) (EPA CFR (72 hr))

1.7 mg/l (daphnia) (OECD 202 (48 hr))

11 mg/l (Selenastrum capricornutum) (72h)

NOEC 0.3 mg/l (Daphnia magna) (21d)

MATC 0.55 mg/l (Daphnia magna) (21d)

9003-36-5 Bisphenol F epichlorohydrin resin MW <700

LC50/96 h >100 mg/l (fish)

2425-79-8 1,4-bis(2,3-epoxypropoxy)butane

EL50 >160 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

EC50 75 mg/l (Daphnia magna) (24h; OECD 202)

LC50 19.8 mg/l (Danio rerio (Zebrafisch)) (96h; OECD 203)

- 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:

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.
Harmful to aquatic organisms

- 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.

SECTION 14: Transport information

- 14.1 UN-Number

- ADR, IMDG, IATA

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<p>- 14.2 UN proper shipping name - ADR</p> <p>- IMDG</p> <p>- IATA</p>	<p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorhydrin resin MW <700), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))</p>
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<p>- 14.3 Transport hazard class(es) - ADR</p>	<p>9 (M6) Miscellaneous dangerous substances and articles.</p>
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<p>- Class - Label</p>	<p>9</p>
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<p>- IMDG, IATA</p>	<p>9 Miscellaneous dangerous substances and articles.</p>
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<p>- Class - Label</p>	<p>9</p>
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<p>- 14.4 Packing group - ADR, IMDG, IATA</p>	<p>III</p>
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<p>- 14.5 Environmental hazards:</p> <p>- Marine pollutant:</p> <p>- Special marking (ADR):</p> <p>- Special marking (IATA):</p>	<p>Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)</p> <p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
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<p>- 14.6 Special precautions for user - Hazard identification number (Kemler code): - EMS Number: - Stowage Category</p>	<p>Warning: Miscellaneous dangerous substances and articles.</p> <p>90</p> <p>F-A,S-F</p> <p>A</p>
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<p>- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</p>	<p>Not applicable.</p>
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<p>- Transport/Additional information:</p> <p>- ADR</p> <p>- Limited quantities (LQ)</p> <p>- Excepted quantities (EQ)</p> <p>- Transport category</p> <p>- Tunnel restriction code</p>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p> <p>3</p> <p>-</p>
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<p>- IMDG</p> <p>- Limited quantities (LQ)</p> <p>- Excepted quantities (EQ)</p>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
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<p>- UN "Model Regulation":</p>	<p>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III</p>
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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.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

- Regulation (EU) No 649/2012

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- National regulations:

- Information about limitation of use: Employment restrictions concerning juveniles must be observed.
 Employment restrictions concerning women of child-bearing age must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.

- Other regulations, limitations and prohibitive regulations

- Substances of very high concern (SVHC) according to REACH, Article 57

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- 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.
 The safety data sheet issued is also compliant with the regulation Annex I of Regulation (EU) no. 453/2010 and Annex II of Regulation (EU) no. 2015/830

- Relevant phrases
 - H302 Harmful if swallowed.
 - H312 Harmful in contact with skin.
 - H314 Causes severe skin burns and eye damage.
 - H315 Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
 - 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)
 - DNEL: Derived No-Effect Level (REACH)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - SVHC: Substances of Very High Concern
 - vPvB: very Persistent and very Bioaccumulative
 - Acute Tox. 4: Acute toxicity - oral - Category 4
 - Skin Corr. 1B: Skin corrosion/irritation - Category 1B
 - Skin Irrit. 2: Skin corrosion/irritation - Category 2
 - Eye Dam. 1: Serious eye damage/eye irritation - Category 1
 - Eye Irrit. 2: Serious eye damage/eye irritation - Category 2
 - Skin Sens. 1: Skin sensitisation - Category 1
 - Skin Sens. 1B: Skin sensitisation - Category 1B
 - Repr. 2: Reproductive toxicity - Category 2
 - 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.