

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.07.2017

Version number 5

Revision: 26.07.2017

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

1.1 Product identifier

Trade name: **Everclear 100, Komponente A**

Article number: 11425, 11457

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

No further relevant information available.

Application of the substance / the mixture

Polyurethane resin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg

Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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

Hazard pictograms

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



GHS05 GHS07

Signal word

Danger

Hazard-determining components of labelling:

tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate
Modified Oxazolidine
bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane
diethyl fumarate

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<ul style="list-style-type: none"> · <u>Hazard statements</u> · <u>Precautionary statements</u> 	<p>bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.</p> <p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P102 Keep out of reach of children. P103 Read label before use. P261 Avoid breathing vapours. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/doctor. 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.</p>
<ul style="list-style-type: none"> · 2.3 Other hazards · Results of PBT and vPvB assessment · PBT: · vPvB: 	<p>Not applicable. Not applicable.</p>

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 136210-30-5 ELINCS: 429-270-1 Index number: 607-521-00-8 Reg.nr.: 01-0000017556-64-0000	tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate ⚠ Skin Sens. 1, H317 ⚠ Aquatic Chronic 3, H412	50-100%
CAS: 136210-32-7 ELINCS: 412-060-9 Index number: 607-350-00-9 Reg.nr.: 01-0000015937-58-0000	bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl) methane ⚠ Skin Sens. 1, H317 ⚠ Aquatic Chronic 3, H412	12.5-25%
CAS: 145899-78-1 ELINCS: 429-990-6	Modified Oxazolidine ⚠ Eye Dam. 1, H318 ⚠ Skin Sens. 1, H317 ⚠ Aquatic Chronic 3, H412	<10%
CAS: 623-91-6 EINECS: 210-819-7	diethyl fumarate ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335	1-5%
CAS: 41556-26-7 Reg.nr.: 01-2119491304-40	bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ⚠ Skin Sens. 1, H317	1-5%
CAS: 82919-37-7 EINECS: 280-060-4	methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ⚠ Skin Sens. 1, H317	<1%

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

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SECTION 4: First aid measures**4.1 Description of first aid measures**

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help immediately.

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.

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:
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
Hydrogen cyanide (HCN)

5.3 Advice for firefighters

- Protective equipment: Wear self-contained respiratory protective device.
- Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

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:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
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.

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.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

- Information about fire - and explosion protection:

No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- Storage:

- Requirements to be met by storerooms and receptacles:

Store in a cool location.

- Information about storage in one common storage facility:

Not required.

- Further information about storage conditions:

Protect from frost.

Store in cool, dry conditions in well sealed receptacles.

- **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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **DNELs**

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Oral	DNEL (Kurzzeit-akut)	1.4 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (ARB)
Dermal	DNEL (Kurzzeit-akut)	1.4 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (ARB)
Inhalative		1.4 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	112 mg/m ³ Air (ARB)
		4.8 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	28 mg/m ³ Air (ARB)
		4.8 mg/m ³ Air (BEV)

136210-32-7 bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane

Oral	DNEL (Kurzzeit-akut)	4.2 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	11.9 mg/kg bw/day (ARB)
Dermal	DNEL (Kurzzeit-akut)	4.2 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	11.9 mg/kg bw/day (ARB)
Inhalative		4.2 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	672 mg/m ³ Air (ARB)
		14.5 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	84 mg/m ³ Air (ARB)
		15.5 mg/m ³ Air (BEV)

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· PNECs

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

PNEC (wässrig)	31.1 mg/l (KA)
	0.000013 mg/l (MW)
	0.00013 mg/l (SW)
PNEC (fest)	0.1 mg/kg Trockengew (BO)
	0.02 mg/kg Trockengew (MWS)
	0.21 mg/kg Trockengew (SWS)

136210-32-7 bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane

PNEC (wässrig)	31.1 mg/l (KA)
	0.000013 mg/l (MW)
	0.00013 mg/l (SW)
PNEC (fest)	0.1 mg/kg Trockengew (BO)
	0.02 mg/kg Trockengew (MWS)
	0.21 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.· **8.2 Exposure controls**

· Personal protective equipment:
 · General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Short term filter device:
 Filter A/P2

· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· Material of gloves

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked

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- Penetration time of glove material prior to the application.
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:  Tightly sealed goggles
- Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

<u>Form:</u>	Fluid
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<u>Colour:</u>	Colourless
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<u>Odour:</u>	Weak, characteristic
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<u>Odour threshold:</u>	Not determined.
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<u>pH-value:</u>	Not determined.
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· Change in condition

<u>Melting point/freezing point:</u>	Undetermined.
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<u>Initial boiling point and boiling range:</u>	> 300°C
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<u>Flash point:</u>	100°C
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<u>Flammability (solid, gas):</u>	Not applicable.
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· Ignition temperature:

<u>Decomposition temperature:</u>	Not determined.
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<u>Auto-ignition temperature:</u>	Product is not selfigniting.
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<u>Explosive properties:</u>	Product does not present an explosion hazard.
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· Explosion limits:

<u>Lower:</u>	Not determined.
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<u>Upper:</u>	Not determined.
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<u>Vapour pressure:</u>	Not determined.
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<u>Density at 20°C:</u>	1.07 g/cm ³
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<u>Relative density</u>	Not determined.
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<u>Vapour density</u>	Not determined.
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<u>Evaporation rate</u>	Not determined.
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· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

<u>Partition coefficient: n-octanol/water:</u>	Not determined.
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· Viscosity:

<u>Dynamic at 20°C:</u>	480 mPas
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<u>Kinematic:</u>	Not determined.
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· Solvent content:

<u>Organic solvents:</u>	0.4 %
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<u>Solids content:</u>	0.3 %
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· 9.2 Other information	No further relevant information available.
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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:****ATE (Acute Toxicity Estimates)**

Oral	LD50	>2,040 mg/kg (rat)
Dermal	LD50	>2,288 mg/kg (rat)

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Oral	LD50	>2,000 mg/kg (rat) (Richtlinie 67/548/EWG, Anhang V, B.1.)
Dermal	LD50	>2,000 mg/kg (rat) (Richtlinie 67/548/EWG, Anhang V, B.3.)
Inhalative	LC50/4h	>4,224 mg/m ³ (rat) (OECD-Prüfrichtlinie 403)

136210-32-7 bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane

Oral	LD50	>2,000 mg/kg (rat) (RL67/548/EWG, Anhang V, B.1.)
	NOEL	1,000 mg/kg (rat)
	NOAEL-Werte	1,000 mg/kg (rat) (OECD 407)
Dermal	LD50	>2,000 mg/kg (rat) (RL 67/548/EWG, Anhang V, B.3.)
	NOEL	1,000 mg/kg (rat)
Inhalative	LC50/4h	>4,224 mg/m ³ (rat) (OECD 403)

41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat

Oral	LD50	3,230 mg/kg (rat)
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** Causes serious eye damage.
- **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:****136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate**

EC50	3,110 mg/l (BES) (ISO Vorschrift 8192-1986 E)
IC50/72h	113 mg/l (Scenedesmus subspicatus) (Richtlinie 67/548/EWG, Anhang V, C.3.)
EC50/48h	88.6 mg/l (daphnia magna) (UBA-Verfahrensvorschlag Mai 1984)
ErC50/72h	113 mg/l (Scenedesmus subspicatus)
NOEC	100 mg/kg (Ac) (OECD 208) 100 mg/kg (As) (OECD 208) 100 mg/kg (Bn) (OECD 208) ≥1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD-Prüfrichtlinie 207)
NOEC/21d	0.01 mg/l (daphnia magna) (Richtlinie 67/548/EWG, Anhang V, C.20.)
LC50/96h	66 mg/l (Danio rerio.) (OECD 203)

136210-32-7 bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane

EC50	3,110 mg/l (BES) (ISO-VS 8192-1986E)
IC50/72h	113 mg/l (Scenedesmus subspicatus) (RL 67/548/EWG, Anhang V, C.3.)
EC50/48h	88.6 mg/l (daphnia magna) (UBA-Vorschlag)
NOEC	≥100 mg/kg (Ac) (OECD 208) ≥100 mg/kg (As) ≥100 mg/kg (Bn) (OECD 208) >1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD 207)
NOEC/21d	0.01 mg/l (daphnia magna) (RL 67/548/EWG, Anhang V, C.20.)
LC50/96h	66 mg/l (Danio rerio.) (OECD 203)

41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat

EC50/24h	20 mg/l (daphnia magna) (OECD 202)
EC50	>100 mg/l (BES) (OECD 209)
EC50/72h	1.68 mg/l (Desmodesmus subspicatus) (OECD 201)
LC50/96h	0.97 mg/l (Iepomis macrochirus) 7.9 mg/l (Oncorhynchus mykiss) (OECD 203: ISO 7346; 92/69/EWG, C.1)

12.2 Persistence and degradability

Not easily biodegradable

12.3 Bioaccumulative potential

Non significant accumulation in organisms

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 1 (German Regulation) (Self-assessment): slightly hazardous for water

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.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information**14.1 UN-Number**

- ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name

- ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es)

- ADR, ADN, IMDG, IATA
- Class Void

14.4 Packing group

- ADR, IMDG, IATA Void

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:

Not dangerous according to the above specifications.

· 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.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- Information about limitation of use: Employment restrictions concerning juveniles must be observed.
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- VOC EU 4.0 g/l
- **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 H302 Harmful if swallowed.
H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

· Department issuing SDS:

· Contact:

Laboratory
 Dieter Zimmermann
 Elke Hake
 Fon ++49 (0)911 64296-59
 @mail E.Hake@akemi.de

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 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)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 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 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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