

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

1.1 Product identifier

WLK (Härter)

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

1.2.1 Relevant uses

Hardener

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Fischer Elektronik GmbH & Co. KG
Nottebohmstr. 28
58511 Lüdenscheid / GERMANY
Phone +49 2351 4 35-0
Fax +49 2351 4 57 54
Homepage www.fischerelektronik.de
E-mail info@fischerelektronik.de

Address enquiries to

Technical information info@fischerelektronik.de
Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0) 228-19240 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1B: H314 Causes severe skin burns and eye damage.
Eye Dam. 1: H318 Causes serious eye damage.
Skin Sens. 1: H317 May cause an allergic skin reaction.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms



Signal word

DANGER

Contains:

3,3'-oxybis(ethyleneoxy)bis(propylamine)
2-[2-(3-aminopropoxy)ethoxy]ethanol

Hazard statements

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements

P260 Do not breathe vapours.
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 / 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.
P310 Immediately call a POISON CENTER / doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Special labelling

EUH071 Corrosive to the respiratory tract.

2.3 Other hazards

Human health dangers

People who are allergic to amines should avoid the use of the product.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
75 - <100	3,3'-oxybis(ethyleneoxy)bis(propylamine) CAS: 4246-51-9, EINECS/ELINCS: 224-207-2 GHS/CLP: Skin Corr. 1B: H314 - Eye Dam. 1: H318 - Skin Sens. 1: H317
1 - 10	2-[2-(3-aminopropoxy)ethoxy]ethanol CAS: 112-33-4, EINECS/ELINCS: 203-960-0 GHS/CLP: Skin Corr. 1B: H314 - Eye Dam. 1: H318

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated soaked clothing immediately and dispose of safely.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

Eye contact

In case of contact with eyes rinse thoroughly and immediately with plenty of water and seek medical advice.
Shield unaffected eye.

Ingestion

Do not induce vomiting.
Seek medical advice immediately.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.
Allergic reactions
Risk of serious damage to eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used

Full water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx).

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.
Wear full protective suit.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment.
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Vapours can form an explosive mixture with air.
Remove contaminated soaked clothing immediately and dispose of safely.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.
Showers and eye wash stations should be provided.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with food and animal food/diet.
Keep container in a well-ventilated place.
Keep container tightly closed.
Keep in a cool place. Store in a dry place.
Protect from atmospheric moisture and water.
Recommended storage temperature: 5-25 °C (41-77 °F).

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational
exposure limits to be monitored (GB)

not applicable

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,7 mm Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing.
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	amber colour
Odor	amine-like
Odour threshold	not determined
pH-value	> 12 (100 g/l)
pH-value [1%]	not determined
Boiling point [°C]	146 - 148
Flash point [°C]	178,5
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	0,000005 (20 °C)
Density [g/ml]	0,98
Bulk density [kg/m³]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	not determined
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	-32
Autoignition temperature [°C]	268
Decomposition temperature [°C]	not determined

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

Reactions with strong acids.

Reactions with epoxides

10.4 Conditions to avoid

Strong heating.

See SECTION 7.2.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
inhalative, Based on the available information, the classification criteria are not fulfilled.:
dermal, Based on the available information, the classification criteria are not fulfilled.:
oral, Based on the available information, the classification criteria are not fulfilled.:
Substance
3,3'-oxybis(ethyleneoxy)bis(propylamine), CAS: 4246-51-9
LD50, dermal, Rabbit: > 2500 mg/kg (OECD 402).
LD50, oral, Rat: ca. 3160 mg/kg.
2-[2-(3-aminopropoxy)ethoxy]ethanol, CAS: 112-33-4
LD50, oral, Rat: 6500 mg/kg bw.

Serious eye damage/irritation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Product is caustic. Calculation method
Respiratory or skin sensitisation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. May cause an allergic skin reaction. Calculation method
Specific target organ toxicity — single exposure	Does not contain a relevant substance that meets the classification criteria.
Specific target organ toxicity — repeated exposure	Does not contain a relevant substance that meets the classification criteria.
Mutagenicity	Does not contain a relevant substance that meets the classification criteria.
Reproduction toxicity	Does not contain a relevant substance that meets the classification criteria.
Carcinogenicity	Does not contain a relevant substance that meets the classification criteria.
Aspiration hazard	Does not contain a relevant substance that meets the classification criteria.
General remarks	

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Substance
3,3'-oxybis(ethyleneoxy)bis(propylamine), CAS: 4246-51-9
LC50, (96h), Leuciscus idus: > 1000 mg/l (DIN 38412).
EC50, (48h), Daphnia magna: 218,16 mg/l.
2-[2-(3-aminopropoxy)ethoxy]ethanol, CAS: 112-33-4
LC50, (96h), Danio rerio: 681,18 mg/l.
EC50, (48h), Daphnia magna: > 100 mg/l.
EC10, (72h), Scenedesmus subspicatus: > 100 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended)

080409*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Dispose full / partially emptied cartridges as hazardous waste in accordance with official regulations.

Waste no. (recommended)

150110*

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID 2735

Inland navigation (ADN) 2735

Marine transport in accordance with IMDG 2735

Air transport in accordance with IATA 2735

14.2 UN proper shipping name

Transport by land according to ADR/RID Amines, liquid, corrosive, n.o.s. (3,3-oxybis(ethyleneoxy)bis(propylamine), 2-[2-(3-aminopropoxy)ethoxy]ethanol)

- Classification Code C7

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN) Amines, liquid, corrosive, n.o.s. (3,3-oxybis(ethyleneoxy)bis(propylamine), 2-[2-(3-aminopropoxy)ethoxy]ethanol)

- Classification Code C7

- Label



Marine transport in accordance with IMDG Amines, liquid, corrosive, n.o.s. (3,3-oxybis(ethyleneoxy)bis(propylamine), 2-[2-(3-aminopropoxy)ethoxy]ethanol)

- EMS F-A, S-B

- Label



- IMDG LQ 1 I

Air transport in accordance with IATA Amines, liquid, corrosive, n.o.s. (3,3-oxybis(ethyleneoxy)bis(propylamine), 2-[2-(3-aminopropoxy)ethoxy]ethanol)

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 8

Inland navigation (ADN) 8

Marine transport in accordance with IMDG 8

Air transport in accordance with IATA 8

14.4 Packing group

Transport by land according to ADR/RID II

Inland navigation (ADN) II

Marine transport in accordance with IMDG II

Air transport in accordance with IATA II

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2016).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- **Observe employment restrictions for people** Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- **VOC (2010/75/CE)** <0,1 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H314 Causes severe skin burns and eye damage.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 TLV®/TWA = Threshold limit value – time-weighted average
 TLV®/STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Classification procedure**

Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (Calculation method)
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)

Modified position

none

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