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

### 1.1 Product identifier

**Trade name/designation** WLK (Binder)

### Other means of identification

UFI: SYU2-4670-EX0W-06KG

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

#### Relevant identified uses

##### remark

Thermally conductive adhesive

The product is intended for professional use.

#### Uses advised against

Do not use for private purposes (household).

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer

Fischer Elektronik GmbH & Co. KG

Nottebohmstraße 28

D-58511 Lüdenscheid

Telephone: +49-2351-4350

Telefax: +49-2351-45754

E-mail: [info@fischerelektronik.de](mailto:info@fischerelektronik.de)

Information telephone: +49-2351-4350

E-mail (competent person): [info@fischerelektronik.de](mailto:info@fischerelektronik.de)

[www.fischerelektronik.de](http://www.fischerelektronik.de)

### 1.4 Emergency telephone number

+49-228-19240 (English and German, Giftnotruf Bonn)

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

#### health hazards

Eye Irrit. 2

#### hazard statements for health hazards

H319 Causes serious eye irritation.

#### health hazards

Skin Irrit. 2

#### hazard statements for health hazards

H315 Causes skin irritation.

#### health hazards

Skin Sens. 1

#### hazard statements for health hazards

H317 May cause an allergic skin reaction.

#### health hazards

Muta. 2

**hazard statements for health hazards**

H341 Suspected of causing genetic defects.

**Environmental hazards**

Aquatic Chronic 3

**hazard statements for environmental hazards**

H412 Harmful to aquatic life with long lasting effects.

**remark**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**2.2 Label elements**

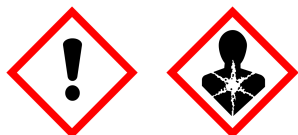
**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard components for labelling**

2,3-epoxypropyl o-tolyl ether

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

**Hazard pictograms**



GHS07

GHS08

**Signal word**

Warning

**Hazard statements**

**hazard statements for health hazards**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

**Hazard statements for environmental hazards**

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention**

P273 Avoid release to the environment.

P280 Wear protective gloves and eye/face protection.

P201 Obtain special instructions before use.

**Response:**

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Disposal:**

P501 Dispose of contents/container to industrial incineration plant.

**Special rules for supplemental label elements for certain mixtures**

EUH205 Contains epoxy constituents. May produce an allergic reaction.

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## 2.3 Other hazards

### Adverse human health effects and symptoms

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### Results of PBT and vPvB assessment

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

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## SECTION 3: Composition / information on ingredients

### 3.1 Substances (not applicable)

### 3.2 Mixtures

#### Hazardous ingredients

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700) >10 - <25 %

CAS 25068-38-6

EC 500-033-5

INDEX 603-074-00-8

Eye Irrit. 2, H319 / Skin Irrit. 2, H315 / Skin Sens. 1, H317 /

Aquatic Chronic 2, H411

2,3-epoxypropyl o-tolyl ether >2,5 - <10 %

CAS 2210-79-9

EC 218-645-3

INDEX 603-056-00-X

Muta. 2, H341 / Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Aquatic

Chronic 2, H411

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Change contaminated, saturated clothing.

#### Following inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### Following skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

#### After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting.

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

#### Effects

Allergic reactions

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#### 4.3 Indication of any immediate medical attention and special treatment needed

##### Notes for the doctor

Treat symptomatically.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Extinguishing powder

Carbon dioxide (CO<sub>2</sub>)

Water spray

Foam

##### Unsuitable extinguishing media

Full water jet

#### 5.2 Special hazards arising from the substance or mixture

##### Hazardous combustion products

Carbon monoxide

#### 5.3 Advice for firefighters

##### Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### For non-emergency personnel

##### Emergency procedures

Provide adequate ventilation.

##### Personal precautions

Use personal protection equipment. Special danger of slipping by leaking/spilling product.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

#### 6.3 Methods and material for containment and cleaning up

##### For containment

##### Suitable material for taking up:

Sand

Universal binder

Sawdust

#### 6.4 Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Use protective skin cream before handling the product. Wash contaminated clothing prior to re-use.

#### Protective measures

#### Advices on safe handling

Use only in well-ventilated areas.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. The floor should be leak tight, jointless and not absorbent.

#### Hints on joint storage

#### Materials to avoid

Oxidising agent

Food and feedingstuffs

#### Storage class

Flammable liquids

### 7.3 Specific end use(s)

#### Recommendation

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
112926-00-8	Silica, amorphous	6 inhalable aerosol 2,4 respirable aerosol mg/m <sup>3</sup>		Great Britain (UK)

LTV = long-term occupational exposure limit value

STV = short-term occupational exposure limit value

source: GESTIS International Limit Values (<http://limitvalue.ifa.dguv.de/>)

Monitoring and observation processes: GESTIS Analytical Methods (<http://amcaw.ifa.dguv.de/>)

### 8.2 Exposure controls

#### Appropriate engineering controls

#### Substance/mixture related measures to prevent exposure during identified uses

Fresh air (open windows and doors) is necessary.

#### Personal protection equipment

#### Eye/face protection

#### Suitable eye protection:

Eye glasses with side protection

goggles

#### Recommended eye protection articles

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**DIN-/EN-Norms**

DIN EN 166

**Skin protection**

**Suitable material:**

Butyl caoutchouc (butyl rubber)

**Breakthrough time:** >480 min

**Thickness of the glove material** 0,7 mm

**Recommended glove articles**

**DIN-/EN-Norms**

EN ISO 374

**remark**

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Body protection:**

**Suitable protective clothing:**

not relevant

**Respiratory protection**

**Suitable respiratory protection apparatus:**

Combination filtering device

ABEK-P3

**remark**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Usually no personal respirative protection necessary.

**Environmental exposure controls**

**Organisational measures to prevent exposure**

not determined

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Physical state**

liquid

**Colour**

blue

**Odour**

characteristic

**Odour threshold:**

not determined

parameter

Method - source - remark

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Melting point/freezing point

not determined

Boiling point or initial boiling point and boiling range >260 °C

parameter	Method - source - remark
flammability	not determined
Upper explosion limit	not determined
lower explosion limit	not determined
Flash point (°C)	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not determined
pH	not applicable
Kinematic viscosity	not determined
Water solubility	Immiscible
Soluble (g/L) in	not determined
Fat solubility	not determined
Partition coefficient: n-octanol/water	not determined
Vapour pressure	not determined
Density and/or relative density	not determined
Relative vapour density	not determined
particle characteristics	not determined
Dynamic viscosity	not determined
flow time	not determined
Oxidising liquids	none
Oxidising solids	not determined
Oxidising gas	not determined

## 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

### 10.2 Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

In case of warming:

Danger of bursting container.

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### 10.5 Incompatible materials

Oxidising agent, strong

Acid

Alkali (lye)

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

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## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Aspiration hazard

##### Assessment/classification

Based on available data, the classification criteria are not met.

#### Acute toxicity

##### Acute dermal toxicity

**ingredient** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )

**Acute dermal toxicity** 22800 mg/kg

##### Species:

Rabbit

##### source

GESTIS

##### Assessment/classification

Based on available data, the classification criteria are not met.

##### Acute inhalation toxicity (gas)

**ingredient** 2,3-epoxypropyl o-tolyl ether

**Acute inhalation toxicity (gas)** 6,09 mg/L

##### Effective dose

LC50:

**Exposure time** 4 h

##### Species:

Rat

##### source

National Technical Information Service. Vol. OTS0534658

##### Acute oral toxicity

**ingredient** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )

**Acute oral toxicity** 11400 mg/kg

##### Species:

Rat

##### source

GESTIS

**ingredient** 2,3-epoxypropyl o-tolyl ether

**Acute oral toxicity** 4000 mg/kg

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**Effective dose**

LD50:

**Species:**

Rat

**source**

National Technical Information Service. Vol. OTS0571540

**Serious eye damage/irritation**

**Assessment/classification**

Irritant.

**skin corrosion/irritation**

**Assessment/classification**

Irritant.

**Respiratory or skin sensitisation**

**Skin sensitisation**

**Assessment/classification**

May cause an allergic skin reaction.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Germ cell mutagenicity**

**Human toxicological data**

**remark**

Evidence exists for human germ cell mutagenicity.

**Carcinogenicity**

**remark**

No indication of human carcinogenicity.

**Reproductive toxicity**

**Practical experience/human evidence**

No indications of human reproductive toxicity exist.

**STOT-repeated exposure**

**STOT RE 1 and 2**

**Other information**

not relevant

**11.2 Information on other hazards**

No information available.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic toxicity**

**Acute (short-term) fish toxicity**

**ingredient** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

**Acute (short-term) fish toxicity** 3,1 mg/L

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**Effective dose**

LC50:

**Test duration** 96 h

**species**

Pimephales promelas (fathead minnow)

**Acute (short-term) toxicity to crustacea**

**ingredient** reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

**Acute (short-term) toxicity to crustacea** >1,4 - <1,7 mg/L

**Effective dose**

EC50

**Test duration** 48 h

**species**

Daphnia magna (Big water flea)

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**

No information available.

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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Directive 2008/98/EC (Waste Framework Directive)**

**Before intended use**

**Appropriate disposal / Package**

Handle contaminated packages in the same way as the substance itself.

**Waste code product** 080409

**hazardous waste** Yes.

**Waste name**

waste adhesives and sealants containing organic solvents or other hazardous substances

**After intended use**

**Appropriate disposal / Product**

Dispose of waste according to applicable legislation.

**Waste code packaging** 150110

**hazardous waste** Yes.

**Waste name**

packaging containing residues of or contaminated by hazardous substances

## SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

#### Authorisations and/or restrictions on use

#### Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### Other regulations (EU)

#### Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

**Volatile organic compounds (VOC) content in percent by weight:** 10 weight-%

### 15.2 Chemical Safety Assessment

not applicable

## SECTION 16: Other information

### Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

### Relevant R-, H- and EUH-phrases (Number and full text)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.