

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

1.1 Product identifier

WLK (Binder)

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

1.2.1 Relevant uses

Resin

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 Irrit. 2: H315 Causes skin irritation.
Eye Irrit. 2: H319 Causes serious eye irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Carc. 2: H351 Suspected of causing cancer.
Muta. 2: H341 Suspected of causing genetic defects.
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



Signal word

WARNING

Contains:

Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700)

Butyl 2,3-epoxypropyl ether

Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H341 Suspected of causing genetic defects.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P308+P311 IF exposed or concerned: Call a POISON CENTER / doctor.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

Special labelling

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

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 |
|-----------|--|
| 25 - 50 | Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700) CAS: 25068-38-6, EINECS/ELINCS: 500-033-5, EU-INDEX: 603-074-00-8 GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411 |
| 1 - 10 | Butyl 2,3-epoxypropyl ether CAS: 2426-08-6, EINECS/ELINCS: 219-376-4, EU-INDEX: 603-039-00-7 GHS/CLP: Flam. Liq. 3: H226 - Carc. 2: H351 - Muta. 2: H341 - Acute Tox. 4: H302 H332 - STOT SE 3: H335 - Skin Sens. 1: H317 - Aquatic Chronic 3: H412 |

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 | Take off contaminated clothing and wash before reuse. |
| 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. Consult a doctor if skin irritation persists. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink. |

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
Irritant effects

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)
Chlorine compounds.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
High risk of slipping due to leakage/spillage of product.
Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
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

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

Dispose of absorbed material in accordance within 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.

Provide suitable vacuuming at the processing machines.

Contaminated work clothing should not be allowed out of the workplace.

Do not eat, drink, smoke or take drugs at work.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

Do not store together with oxidizing agents.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

Keep in a cool place. Store in a dry place.

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)

| |
|---|
| Substance |
| Talc (Mg ₃ H ₂ (SiO ₃) ₄) |
| CAS: 14807-96-6, EINECS/ELINCS: 238-877-9 |
| Long-term exposure: 1 mg/m ³ , respirable dust |
| Aluminium oxide |
| CAS: 1344-28-1, EINECS/ELINCS: 215-691-6 |
| Long-term exposure: 10 mg/m ³ , inhalable dust (respirable dust: 4 mg/m ³) |

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 | Safety glasses. (EN 166:2001) |
| Hand protection | 0,7 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information. |
| Skin protection | Protective clothing. |
| Other | Avoid contact with eyes and skin. Do not inhale vapours. It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin. 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 | Breathing apparatus in the event of high concentrations. Short term: combination filter A-P3. (DIN EN 14387) |
| Thermal hazards | No information available. |
| 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 | blue |
| Odor | characteristic |
| Odour threshold | not determined |
| pH-value | not applicable |
| pH-value [1%] | not applicable |
| Boiling point [°C] | not determined |
| Flash point [°C] | > 100 |
| Flammability (solid, gas) [°C] | not determined |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Oxidising properties | no |
| Vapour pressure/gas pressure [kPa] | not determined |
| Density [g/ml] | 2,0 - 2,2 |
| Bulk density [kg/m³] | not applicable |
| Solubility in water | immiscible |
| Partition coefficient [n-octanol/water] | not determined |
| Viscosity | not applicable |
| Relative vapour density determined in air | not determined |
| Evaporation speed | not determined |
| Melting point [°C] | not determined |
| Autoignition temperature [°C] | not determined |
| Decomposition temperature [°C] | not determined |

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactions with oxidizing agents.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Strong heating.
See SECTION 7

10.5 Incompatible materials

Strong oxidizing agent.
strong acids
Alkalies

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| |
|--|
| Product |
| dermal, Based on the available information, the classification criteria are not fulfilled.: |
| ATE-mix, inhalativ (vapour), > 20 mg/l (4 h). |
| ATE-mix, oral, > 2000 mg/kg. |
| Substance |
| Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700), CAS: 25068-38-6 |
| LD50, dermal, Rabbit: 22800 mg/kg bw (GESTIS). |
| LD50, oral, Rat: 11400 mg/kg bw (GESTIS). |
| Butyl 2,3-epoxypropyl ether, CAS: 2426-08-6 |
| LD50, dermal, Rabbit: 2520 mg/kg. |
| LD50, oral, Rat: 1660 mg/kg. |
| LC50, inhalative, Rat: 14,02 mg/l (4h). |

| | |
|---|--|
| Serious eye damage/irritation | Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Irritant Calculation method |
| Skin corrosion/irritation | Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Irritant 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 | Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available. No classification. Calculation method |
| Specific target organ toxicity — repeated exposure | Does not contain a relevant substance that meets the classification criteria. |
| Mutagenicity | Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Suspected of causing genetic defects. Calculation method |
| Reproduction toxicity | Does not contain a relevant substance that meets the classification criteria. |
| Carcinogenicity | Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Suspected of causing cancer. Calculation method |
| 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 |
| Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700), CAS: 25068-38-6 |
| LC50, (96h), Pimephales promelas: 3,1 mg/l (Lit.). |
| EC50, (48h), Daphnia magna: 1,4-1,7 mg/l (Lit.). |
| IC50, Bacteria: > 42,6 mg/l/18h (Lit.). |

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

not determined

12.4 Mobility in soil

not applicable

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.

Do not discharge product unmonitored into the environment or into the drainage.

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

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

Disposal in an incineration plant in accordance with the regulations of the local authorities.
Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 080409*

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110*
150101
150102
150104

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID 3082

Inland navigation (ADN) 3082

Marine transport in accordance with IMDG 3082

Air transport in accordance with IATA 3082

14.2 UN proper shipping name

Transport by land according to ADR/RID Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin)

- Classification Code M6

- Label



- ADR LQ 5 l

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN)

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin)

- Classification Code M6

- Label



Marine transport in accordance with IMDG

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin)

- EMS F-A, S-F

- Label



- IMDG LQ 5 l

Air transport in accordance with IATA

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin-mixture)

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 9

Inland navigation (ADN) 9

Marine transport in accordance with IMDG 9

Air transport in accordance with IATA 9

14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

14.5 Environmental hazards

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

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

- **VOC (2010/75/CE)** 10 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H412 Harmful to aquatic life with long lasting effects.
H335 May cause respiratory irritation.
H302+H332 Harmful if swallowed or if inhaled.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H226 Flammable liquid and vapour.
H411 Toxic to aquatic life with long lasting effects.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

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 Irrit. 2: H315 Causes skin irritation. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Carc. 2: H351 Suspected of causing cancer. (Calculation method)
Muta. 2: H341 Suspected of causing genetic defects. (Calculation method)
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)

Modified position

none

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