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

1.1. Product identifier

Trade name/designation WEBAC 4110 Comp. B
Epoxy Injection Resin

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

Relevant identified uses

hardener/amine component for epoxy resin

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

WEBAC-Chemie GmbH

Fahrenberg 22
22885 Barsbüttel / Hamburg
GERMANY

Telephone: +49 40 67057-0

Telefax: +49 40 6703227

Dept. responsible for information:

laboratory

E-mail

sdb@webac.de

1.4. Emergency telephone number

Giftinformationszentrum-Nord +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

Acute Tox. 4 / H302

Acute toxicity (oral)

Harmful if swallowed.

Skin Corr. 1A / H314

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Skin Sens. 1 / H317

Respiratory or skin sensitisation

May cause an allergic skin reaction.

STOT RE 2 / H373

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 3 / H412

Hazardous to the aquatic environment

Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms



Danger

Hazard statements

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H373

May cause damage to organs through prolonged or repeated exposure.

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/protective clothing/eye protection/face protection.

P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302 + P352

IF ON SKIN: Wash with plenty of soap and 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.

Hazard components for labelling

2,2,4-trimethylhexane-1,6-diamine

2-piperazin-1-ylethylamine

Supplemental Hazard information (EU)

not applicable

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description hardener/amine component for epoxy resin

Hazardous ingredients

EC No. CAS No. INDEX No.	REACH No. Designation classification: // Remark	Wt %
247-063-2 25513-64-8	01-2119560598-25-xxxx 2,2,4-trimethylhexane-1,6-diamine Acute Tox. 4 H302 / Skin Corr. 1A H314 / Skin Sens. 1A H317	25 - 50
205-411-0 140-31-8 612-105-00-4	01-2119471486-30-xxxx 2-piperazin-1-ylethylamine Acute Tox. 4 H302 / Acute Tox. 3 H311 / Skin Corr. 1B H314 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / Repr. 2 H361 / STOT RE 1 H372 / Aquatic Chronic 3 H412	1 - 2,5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Always keep in containers that correspond to the material of the original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 30 °C. Protect from heat and direct sunlight.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

not applicable

DNEL:

2-piperazin-1-ylethylamine

INDEX No. 612-105-00-4 / EC No. 205-411-0 / CAS No. 140-31-8

DNEL acute dermal, short-term (local), Workers: 4 mg/dm²

DNEL acute dermal, short-term (systemic), Workers: 20 mg/kg

DNEL long-term dermal (local), Workers: 0,6 mg/dm²

DNEL long-term dermal (systemic), Workers: 3,33 mg/kg bw/day

DNEL acute inhalative (systemic), Workers: 21,4 mg/m³

DNEL long-term inhalative (systemic), Workers: 3,6 mg/m³

PNEC:

2-piperazin-1-ylethylamine

INDEX No. 612-105-00-4 / EC No. 205-411-0 / CAS No. 140-31-8

PNEC aquatic, freshwater: 0,058 mg/l

PNEC aquatic, marine water: 0,0058 mg/l

PNEC aquatic, intermittent release: 0,58 mg/l

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PNEC sediment, freshwater: 215 mg/kg
PNEC sediment, marine water: 21,5 mg/kg
PNEC, soil: 42,9 mg/kg
PNEC sewage treatment plant (STP): 250 mg/l
2,2,4-trimethylhexane-1,6-diamine
EC No. 247-063-2 / CAS No. 25513-64-8
PNEC aquatic, freshwater: 0,0295 mg/l
PNEC aquatic, marine water: 0,0029 mg/l
PNEC aquatic, intermittent release: 0,295 mg/l
PNEC sediment, freshwater: 0,18 mg/kg
PNEC sediment, marine water: 0,018 mg/kg
PNEC, soil: 0,019 mg/kg
PNEC sewage treatment plant (STP): 72 mg/l

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. In case of inadequate ventilation wear respiratory protection.

Personal protection equipment

Respiratory protection

Suitable respiratory protection apparatus:

Usually no personal respirative protection necessary.

Hand protection

For prolonged or repeated handling the following glove material must be used: nitrile rubber or butyl rubber

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state: Liquid
Colour: colourless

Odour: like amine

Odour threshold: not determined

pH at 20 °C: not applicable

Melting point/freezing point: not applicable

Initial boiling point and boiling range: not determined

Flash point: > 101 °C
Method: DIN 53213

flammability

Burning time (s): not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit: not determined

Upper explosion limit: not determined

Vapour pressure at 20 °C: 0,0194 mbar

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Method: calculated

Relative density:

Density at 20 °C:

0,94 g/cm³

Method: calculated

Solubility(ies):

Water solubility (g/L) at 20 °C:

insoluble

Partition coefficient: n-octanol/water:

see section 12

Auto-ignition temperature:

not determined

Decomposition temperature:

not applicable

Viscosity at 40 °C:

> 20,5 mm²/s

Explosive properties:

not applicable

Oxidising properties:

not applicable

9.2. **Other information**

Solvent

Organic solvents:

0 Wt %

SECTION 10: Stability and reactivity

10.1. **Reactivity**

No information available.

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.5. **Incompatible materials**

not applicable

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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

No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Harmful if swallowed.

2-piperazin-1-ylethylamine

oral, LD50, Rat: 2000 mg/kg

dermal, LD50, Rabbit: 866 mg/kg

Method: literature value

2,2,4-trimethylhexane-1,6-diamine

oral, LD50, Rat: 910 mg/kg

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes severe skin burns and eye damage.

2-piperazin-1-ylethylamine

Skin (4 h)

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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2-piperazin-1-ylethylamine
Skin:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

STOT-single exposure; STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

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

Practical experience/human evidence

No information available.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

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

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

12.1. Toxicity

2-piperazin-1-ylethylamine

Fish toxicity, LC50, Poecilia reticulata (Guppy): 368 mg/l (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 58 mg/l (48 h)

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1000 mg/l (72 h)

2,2,4-trimethylhexane-1,6-diamine

Algae toxicity, ErC50, Scenedesmus subspicatus: 29,5 mg/l

Fish toxicity, LC50, Leuciscus idus (golden orfe): 174 (48 h)

Bacteria toxicity, EC50, Pseudomonas putida: 89 (17 h)

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

2-piperazin-1-ylethylamine

:

Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Toxicological data are not available.

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product

Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Dispose of waste according to applicable legislation.

List of proposed waste codes/waste designations in accordance with EWC

070208* other still bottoms and reaction residues

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

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*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

- 14.1. **UN number**
UN 2735
- 14.2. **UN proper shipping name**
Land transport (ADR/RID): Amines, liquid, corrosive, n.o.s.
(TRIMETHYLHEXAMETHYLENDIAMINE)
Sea transport (IMDG): AMINES, LIQUID, CORROSIVE, N.O.S.
(TRIMETHYLHEXAMETHYLENDIAMINE)
Air transport (ICAO-TI / IATA-DGR): Amines, liquid, corrosive, n.o.s.
(TRIMETHYLHEXAMETHYLENDIAMINE)
- 14.3. **Transport hazard class(es)**
8
- 14.4. **Packing group**
III
- 14.5. **Environmental hazards**
Land transport (ADR/RID) not applicable
Marine pollutant not applicable
- 14.6. **Special precautions for user**
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8
- Further information**
- Land transport (ADR/RID)**
tunnel restriction code E
- Sea transport (IMDG)**
EmS-No. F-E, S-B
- Air transport (ICAO-TI / IATA-DGR)**
- 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**
- EU legislation**
- Directive 2010/75/EU on industrial emissions**
VOC-value (in g/L): 0,000
- National regulations**
- Restrictions of occupation**
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
- MAL-code (1993):**
00-5
- 15.2. **Chemical Safety Assessment**
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of classification in section 3:

Acute Tox. 4 / H302

Acute toxicity (oral)

Harmful if swallowed.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

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Skin Corr. 1A / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1A / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
STOT RE 1 / H372	STOT-repeated exposure	Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Skin Corr. 1A Skin corrosion/irritation Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.