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# Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.06.2018 Version number 6 Revision: 22.06.2018

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

· **1.1 Product identifier**

· **Trade name NEUKADUR EP 350**

· **Utilization of the substance of the formulation:** Epoxiresin for the production of duromere
· **CAS Number:**
2095-06-9
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application for the substance / the preparation** Epoxiresin for the production of duromere

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Suter Kunststoffe AG
Aefligenstrasse 3
CH-3312 Fraubrunnen
Tel: +41 (0)31 763 60 60
Fax: +41 (0)31 763 60 61
e-mail: info@swiss-composite.ch

· **Further information obtainable from:** Sales Team
· **1.4 Emergency telephone number:**
Tox Info Suisse
Emergency number: 145 (from abroad: +41 44 251 51 51)

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

| | | |
|---|---|---|
| Repr. 2 | H361 | Suspected of damaging fertility or the unborn child. |
| STOT SE 2 | H371 | May cause damage to organs. |
| STOT RE 2 | H373 | May cause damage to organs through prolonged or repeated exposure. |

GHS07

| | | |
|---|---|---|
| Acute Tox. 4 | H302 | Harmful if swallowed. |
| 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. |
| Aquatic Chronic 4 | H413 | May cause long lasting harmful effects to aquatic life. |

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labelling:**
N,N - Bis(2,3-epoxypropyl)anilin

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· ***Hazard statements***
*H302 Harmful if swallowed.*
*H315 Causes skin irritation.*
*H319 Causes serious eye irritation.*
*H317 May cause an allergic skin reaction.*
*H361 Suspected of damaging fertility or the unborn child.*
*H371 May cause damage to organs.*
*H373 May cause damage to organs through prolonged or repeated exposure.*
*H413 May cause long lasting harmful effects to aquatic life.*
· ***Precautionary statements***

| | |
|---|---|
| *P260* | *Do not breathe 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/doctor if you feel unwell.* |
| *P305+P351+P338* | *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.* |
| *P308+P313* | *IF exposed or concerned: Get medical advice/attention.* |
| *P405* | *Store locked up.* |
| *P501* | *Dispose of contents/container in accordance with local/regional/national/international regulations.* |

· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

## *SECTION 3: Composition/information on ingredients*

· ***3.1 Chemical characterization: Substance***
· ***CAS No. Description***
*2095-06-9 N,N - Bis(2,3-epoxypropyl)anilin*

· ***Dangerous components:*** *Void*
· ***Additional information:*** *For the wording of the listed hazard phrases refer to section 16.*

## *SECTION 4: First aid measures*

· ***4.1 Description of first aid measures***
· ***General information:***
*Personal protection for the First Aider.*
*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.*
*If skin irritation continues, consult a doctor.*
· ***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.*
*If swallowed, rinse mouth with water (only if the person is conscious).*
*Call a doctor 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.*



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## 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**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
carbon dioxide
Nitrogen oxides (NOx)
Hydrogen chloride (HCl)
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear fully protective suit.
Wear self-contained respiratory protective device.
· **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources.
Wear protective clothing.
· **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
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).
Dispose contaminated material as waste according to item 13.
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.

## SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure that suitable extractors are available on processing machines
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Take care by opening
· **Information about fire - and explosion protection:**
Protect against electrostatic charges.
Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.

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Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 20 - 25 °C.
· **Information about storage in one common storage facility:**
Store away from oxidising agents.
Store away from foodstuffs.
· **Further information about storage conditions:**
Protect from frost.
Protect from humidity and water.
· **Storage class:** 10
· **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:** Not required.
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
· **Respiratory protection:**

Suitable respiratory protective device recommended.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The selection of respirators must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
· **Protection of hands:**
Preventive skin protection (3-point program) required
Gloves approved to relevant standards as EN 374 (Europe) and F739 (U.S.)
tested gloves are used. Suitability and durability of a Glove is dependent on usage, for example frequency and duration of contact,
chemical resistance of glove material and dexterity Always seek advice from glove suppliers.

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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
Chemical-resistant, impervious gloves complying with an approved standard at all times when handling chemical products carried
be, if a risk assessment indicates this is necessary.

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*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 prior to the application.*

· ***Penetration time of glove material***
*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:*** | |
| ***Form:*** | *Fluid* |
| ***Colour:*** | *Amber coloured* |
| · ***Odour:*** | *Characteristic* |
| · ***Change in condition*** | |
| ***Melting point/freezing point:*** | *Undetermined.* |
| ***Initial boiling point and boiling range:*** | *135 °C* |
| · ***Flash point:*** | *170 °C* |
| · ***Ignition temperature:*** | *110 °C* |
| · ***Decomposition temperature:*** | *ca. 100 °C* |
| · ***Auto-ignition temperature:*** | *Product is not selfigniting.* |
| · ***Explosive properties:*** | *Product does not present an explosion hazard.* |
| · ***Density at 20 °C:*** | *1,1 g/cm³* |
| · ***Solubility in / Miscibility with water:*** | *Insoluble.* |
| · ***Viscosity:*** | |
| ***Dynamic at 20 °C:*** | *500 mPas* |
| · ***Solvent content:*** | |
| ***Organic solvents:*** | *0,0 %* |
| ***VOC (EC)*** | *0.0 g/l* |
| · ***9.2 Other information*** | *Category temperature : 110°C*<br>*The category temperature (T exo) is the maximum tolerated temperature*<br>*with which a reaction product or a substance can be handled without danger.* |

## *SECTION 10: Stability and reactivity*

· ***10.1 Reactivity*** *No further relevant information available.*
· ***10.2 Chemical stability***
· ***Thermal decomposition / conditions to be avoided:***
*Exothermic polymerisation possilble by temperature over 150°C*

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*No decomposition if used according to specifications.*
· ***10.3 Possibility of hazardous reactions***
*polymerisation under heat processing*
*Reacts with amines.*
· ***10.4 Conditions to avoid*** *No further relevant information available.*
· ***10.5 Incompatible materials:***
*water , alcohol , amine , base and acid*
*Incompatible with oxidizing agents, acids*
· ***10.6 Hazardous decomposition products:***
*Hydrocarbons*
*Hydrogen chloride (HCl)*

## SECTION 11: Toxicological information

· ***11.1 Information on toxicological effects***
· ***Acute toxicity***
*Harmful if swallowed.*

| · **LD/LC50 values relevant for classification:** | | |
|---|---|---|
| **2095-06-9 N,N - Bis(2,3-epoxypropyl)anilin** | | |
| *Oral* | *LD50* | *1,620 mg/kg (Ratte)* |

· ***Primary irritant effect:***
· ***Skin corrosion/irritation***
*Causes skin irritation.*
· ***Serious eye damage/irritation***
*Causes serious eye irritation.*
· ***Respiratory or skin sensitisation***
*May cause an allergic skin reaction.*
· ***CMR effects (carcinogenity, 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***
*Suspected of damaging fertility or the unborn child.*
· ***STOT-single exposure***
*May cause damage to organs.*
· ***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.*

## SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic toxicity:*** *No further relevant information available.*
· ***12.2 Persistence and degradability*** *No further relevant information available.*
· ***12.3 Bioaccumulative potential*** *No further relevant information available.*
· ***12.4 Mobility in soil*** *No further relevant information available.*
· ***Ecotoxical effects:***
· ***Remark:*** *Toxic for fish*
· ***Additional ecological information:***
· ***General notes:***
*Also poisonous for fish and plankton in water bodies.*
*Toxic for aquatic organisms*
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water*
*Do not allow product to reach ground water, water course or sewage system.*
*Danger to drinking water if even small quantities leak into the ground.*
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*

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· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

## 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.
Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate waste code according to the European Waste Catalogue (EWC) should be used.

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

## SECTION 14: Transport information

| | |
|---|---|
| · **14.1 UN-Number** | |
| · **ADR, IMDG, IATA** | UN3082 |
| · **14.2 UN proper shipping name** | |
| · **ADR** | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N - Bis(2,3-epoxypropyl)anilin) |
| · **IMDG, IATA** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N - Bis(2,3-epoxypropyl)anilin) |
| · **14.3 Transport hazard class(es)** | |
| · **ADR** |  |
| · **Class** | 9 (M6) Miscellaneous dangerous substances and articles. |
| · **Label** | 9 |
| · **IMDG** |  |
| · **Class** | 9 Miscellaneous dangerous substances and articles. |
| · **Label** | 9 |
| · **IATA** |  |
| · **Class** | 9 Miscellaneous dangerous substances and articles. |
| · **Label** | 9 |
| · **14.4 Packing group** | |
| · **ADR, IMDG, IATA** | III |
| · **14.5 Environmental hazards:** | Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) |

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| | |
|---|---|
| · **Marine pollutant:** | Yes |
| · **Special marking (ADR):** | Symbol (fish and tree) |
| · **Special marking (IATA):** | Symbol (fish and tree) |
| · **14.6 Special precautions for user** | Warning: Miscellaneous dangerous substances and articles. |
| · **Danger code (Kemler):** | 90 |
| · **EMS Number:** | F-A,S-F |
| · **Stowage Category** | A |
| · **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** | Not applicable. |
| · **Transport/Additional information:** | |
| · **ADR** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **Transport category** | 3 |
| · **Tunnel restriction code** | E |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · **UN "Model Regulation":** | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N - BIS(2,3-EPOXYPROPYL)ANILIN), 9, III |

## SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labelling:**
N,N - Bis(2,3-epoxypropyl)anilin
· **Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.
H413 May cause long lasting harmful effects to aquatic life.
· **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** Substance is not listed.
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations:**

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
· **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.

· **Department issuing SDS:** environment protection department

· **Contact:**
Herr Karasmann Tel. +49 (0)451-49960-0
Herr Grützmacher Tel. +49 (0)2056-25863-6

· **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)
VOC: Volatile Organic Compounds (USA, EU)
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 Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2
STOT SE 2: Specific target organ toxicity (single exposure) – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4