

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

Printing date 01.06.2015

Revision: 05.02.2015

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

· **1.1 Product identifier**

· Trade name: **ROMPOX D1 Comp. A**

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

No further relevant information available.

· **Application of the substance / the mixture** Binder

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

ROMEX Produktions GmbH

Mühlgrabenstraße 19

D-53340 Meckenheim

Tel.: 0049 (0)2225-7032820

Fax: 0049 (0)2225-7032828

email: info@romex-rpg.de

· **Informing department:** Product Safety Department

· **1.4 Emergency telephone number:**

Giftnotrufzentrale BONN

Tel.: 0049(0)228-19240

gizbn@mailen.meb.uni-bonn.de

www.meb.uni-bonn.de/giftzentrale/

National Poisons Information Service (Birmingham Unit)

Dudley Rd, Birmingham

Tel.: 844 892 0111

Mail: mail@npis.org

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

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 2 H411 Toxic to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07 GHS09

· **Signal word** Warning

· **Hazard-determining components of labelling:**

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

reaction product: bisphenol-F-(epichlorhydrin)

oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Glycidyl neodecanoate

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

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· **Precautionary statements**

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P273 Avoid release to the environment.
 P264 Wash thoroughly after handling.
 P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P321 Specific treatment (see on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Contains epoxy constituents. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:**

Epoxy resin formulation with a bisphenol-A liquid resin base and bisphenol-F liquid resin

· **Dangerous components:**

| | | |
|--|---|--------|
| CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-xxxx | reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 25-50% |
| CAS: 28064-14-4 EC number: 608-164-0 Reg.nr.: 01-2119454392-40-xxxx | reaction product: bisphenol-F-(epichlorhydrin) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 25-50% |
| CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4 Reg.nr.: 01-2119485289-22-xxxx | oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 10-25% |
| CAS: 26761-45-5 EINECS: 247-979-2 Reg.nr.: 01-2119431597-33-xxxx | Glycidyl neodecanoate ⚠ Muta. 2, H341; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Sens. 1, H317 | < 2.5% |

· **Additional information** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.

· **After skin contact**

Instantly 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 doctor.

· **After swallowing**

Rinse the mouth with water immediately

Seek immediate medical advice.

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- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor** No particular measures are known - treat according to symptoms.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
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**
Ensure adequate ventilation
Avoid contact with eyes and skin.
Wear protective clothing.
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Do not allow to enter the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
Clean the accident area carefully.
See Section 13 for information on disposal.
See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep containers tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in unopened original containers.
Provide floor trough without outlet.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from frost.
Protect from heat and direct sunlight.

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- **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 systems:** No further data; see item 7.

- **8.1 Control parameters**

- **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **DNELs**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

| | | |
|------------|--|-----------------------------|
| Oral | DNEL Langzeit Verbraucher / Long-term consumer | 0.75 mg/kg/bw/d (-) |
| Dermal | DNEL - Arbeiter / worker | 8.33 mg/kg/bw/d (-) |
| | DNEL Langzeit Verbraucher / Long-term consumer | 3.571 mg/kg/bw/d (-) |
| Inhalative | DNEL Langzeit / long-term | 12.25 mg/m ³ (-) |

26761-45-5 Glycidyl neodecanoate

| | | |
|------------|--------------------------|-----------------------------|
| Dermal | DNEL - Arbeiter / worker | 1.4 mg/kg/bw/d (-) |
| Inhalative | DNEL - Arbeiter / worker | 1.965 mg/m ³ (-) |

- **PNECs**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

| | |
|--|--|
| PNEC Langzeit Wasser / Long-term water | 0.006 mg/l (Frischwasser (freshwater)) |
| | 0.006 mg/l (Meerwasser (seawater)) |

26761-45-5 Glycidyl neodecanoate

| | |
|--|---|
| PNEC Langzeit Wasser / Long-term water | 0.0035 mg/l (Frischwasser (freshwater)) |
| | 0.35 mg/l (Meerwasser (seawater)) |

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Take off immediately all contaminated clothing

Store protective clothing separately.

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

- **Breathing equipment:** Wear a respirator if an aerosol or mist forms.

- **Recommended filter device for short term use:**



Filter AX

- **Protection of hands:**



Only use chemical-protective gloves with CE-labelling of category III.

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Check the permeability prior to each renewed use of the glove.

Preventive skin protection by use of skin-protecting agents is recommended.

· **Material of gloves**

Nitrile rubber, NBR

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Recommended thickness of the material: $\geq > 0.5$ mm mm

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

· **Not suitable are gloves made of the following materials:**

Strong gloves

Leather gloves

· **Eye protection:**



Tightly sealed safety glasses.

· **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: According to product specification

· **Odour:** Characteristic

· **Change in condition**

Melting point/Melting range: Not determined

Boiling point/Boiling range: > 200 °C

· **Flash point:** > 100 °C (DIN 53213)

· **Ignition temperature:** 235 °C

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Vapour pressure at 20 °C:** 0.8 hPa

· **Density at 20 °C** 1.12 g/cm³ (ISO 2811-2)

· **Solubility in / Miscibility with**

Water: Partly miscible

· **Viscosity:**

dynamic: Not determined.

kinematic at 20 °C: 650 s (DIN 53211/4)

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- **Solvent content:**
- Organic solvents:** 0.0 %
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** none, if used as directed
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** none, if stored and handled correctly.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

| | | |
|------|------|-------------------|
| Oral | LD50 | 15000 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--|-------|------------------|
| | NOAEL | 50 mg/kg/d (rat) |
|--|-------|------------------|

| | | |
|--------|------|-------------------|
| Dermal | LD50 | 23000 mg/kg (rab) |
|--------|------|-------------------|

28064-14-4 reaction product: bisphenol-F-(epichlorhydrin)

| | | |
|------|------|--------------------|
| Oral | LD50 | > 2000 mg/kg (rat) |
|------|------|--------------------|

| | | |
|--------|------|--------------------|
| Dermal | LD50 | > 2000 mg/kg (rab) |
|--------|------|--------------------|

26761-45-5 Glycidyl neodecanoate

| | | |
|------|------|------------------|
| Oral | LD50 | 9600 mg/kg (rat) |
|------|------|------------------|

| | | |
|--------|------|------------------|
| Dermal | LD50 | 3800 mg/kg (rat) |
|--------|------|------------------|

| | | |
|------------|------|--|
| Inhalative | LC50 | > 5000 mg/m ³ (rat) (LC50 (4h)) |
|------------|------|--|

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritant effect.
- **Respiratory or skin sensitisation** Sensitization possible by skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

| | |
|---------------------------------|------------------------------|
| Algentoxizität / Algae toxicity | 220 mg/l (Alge) (LC50 (96h)) |
|---------------------------------|------------------------------|

| | |
|--------------------------------------|---------------------------------------|
| Daphnientoxizität / Daphnia toxicity | 2.8 mg/l (Daphnia magna) (LC50 (48h)) |
|--------------------------------------|---------------------------------------|

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| | |
|--|--|
| Fischtoxizität / Fish toxicity | 3.6 mg/l (<i>Leuciscus idus</i>) (LC50 (96h)) |
| NOEC | 4.2 mg/l (<i>Alge</i>) (72h) |
| 28064-14-4 reaction product: bisphenol-F-(epichlorhydrin) | |
| Algtoxizität / Algae toxicity | > 1 - < 10 mg/l (<i>Grünalge</i>) |
| 68609-97-2 oxirane, monof(C12-14-alkyloxy)methyl] derivs | |
| Algtoxizität / Algae toxicity | 845 mg/l (<i>Alge</i>) (IC50 (72h)) |
| Daphnientoxizität / Daphnia toxicity | 1 - 10 mg/l (<i>Daphnia magna</i>) (EC50 (48h)) |
| 26761-45-5 Glycidyl neodecanoate | |
| Algtoxizität / Algae toxicity | 10 mg/l (<i>Grünalge</i>) (EC50 (96h)) |
| Daphnientoxizität / Daphnia toxicity | 3.5 mg/l (<i>Daphnia magna</i>) (EC50 (48h)) |
| Fischtoxizität / Fish toxicity | 9.6 mg/l (<i>Goldorfe (Leuciscus idus)</i>) (LC50 (96h)) |
| Toxizität / Toxicity | 1 < LC/EC/IC50 < 10 mg/l (wirbellose Tiere) |

- **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.
- **Ecotoxicological effects:** Not determined
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.

· European waste catalogue

| | |
|----------|---|
| 08 00 00 | WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS |
| 08 02 00 | wastes from MFSU of other coatings (including ceramic materials) |
| 08 02 99 | wastes not otherwise specified |

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN3082

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| | |
|---|---|
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | <p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)</p> |
|---|---|

· 14.3 Transport hazard class(es)

· ADR



| | |
|--|---|
| <ul style="list-style-type: none"> · Class · Label | <p>9 (M6) Miscellaneous dangerous substances and articles.</p> <p>9</p> |
|--|---|

· IMDG, IATA



| | |
|--|--|
| <ul style="list-style-type: none"> · Class · Label | <p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p> |
|--|--|

· 14.4 Packing group

· ADR, IMDG, IATA

III

· 14.5 Environmental hazards:

Product contains environmentally hazardous substances:
epoxy resin

· Marine pollutant:

Yes
Symbol (fish and tree)

· 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.

· Kemler Number:

90

· EMS Number:

F-A,S-F

· 14.7 Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Excepted quantities (EQ):

E1

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

E

· IMDG

· Limited quantities (LQ)

5L

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· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**UN3082, ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (epoxy resin), 9, III**SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations**· **Technical instructions (air):**· **VOC EU %** 0.00 %· **Water hazard 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**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Changes made since last issue dated 31.07.2014 at the following points: *

· **Relevant phrases**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing data specification sheet:**

IGG-AD Ingenieurbüro für Gefahrstoff- und Gefahrgutberatung

Bismarckstraße 10

D-68623 Lampertheim

Fax: 0049-(0)6206-58422 <http://www.igg-ad.de> info@igg-ad.de· **Contact:**Dr. U. Prinz (u.prinz@igg-ad.de)Dipl.-Chem. H. Hinse (heidrun.hinse@igg-ad.de)· **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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Muta. 2: Germ cell mutagenicity, Hazard Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· *** Data compared to the previous version altered.**

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Revision: 18.11.2015

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

· **1.1 Product identifier**

· Trade name: **ROMPOX D1 Comp. B**

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

No further relevant information available.

· **Application of the substance / the mixture** Epoxy resin hardening agent

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

ROMEX Produktions GmbH

Mühlgrabenstraße 19

D-53340 Meckenheim

Tel.: 0049 (0)2225-7032820

Fax: 0049 (0)2225-7032828

email: info@romex-rpg.de

· **Informing department:** Product Safety Department

· **1.4 Emergency telephone number:**

Giftnotrufzentrale BONN

Tel.: 0049(0)228-19240

gizbn@mailen.meb.uni-bonn.de

www.meb.uni-bonn.de/giftzentrale/

National Poisons Information Service (Birmingham Unit)

Dudley Rd, Birmingham

Tel.: 844 892 0111

Mail: mail@npis.org

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1A 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**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Benzyl alcohol

Alcohols, C9-16, ethoxylated

3-aminomethyl-3,5,5-trimethylcyclohexylamine

1,3-Cyclohexanedimethanamine

· **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

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· **Precautionary statements**

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 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

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Epoxy resin hardening agent, formulation on aliphatic polyamine basis

· **Dangerous components:**

| | | |
|---|--|---------|
| CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-xxxx | Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332 | 25-50% |
| CAS: 260549-92-6 Polymer | Decanoic acid, compds. with 1,3-benzenedimethanamine-bisphenol A - bisphenol-A diglycidyl etherdiethylenetriamine glycidyl Ph ether ⚠ Eye Dam. 1, H318 | 10-25% |
| CAS: 97043-91-9 Polymer | Alcohols, C9-16, ethoxylated ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302 | 2.5-10% |
| CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-xxxx | 3-aminomethyl-3,5,5-trimethylcyclohexylamine ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412 | 2.5-10% |
| CAS: 2579-20-6 EINECS: 219-941-5 Reg.nr.: 01-2119543741-41-xxxx | 1,3-Cyclohexanedimethanamine ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332 | 2.5-10% |
| CAS: 10563-29-8 EINECS: 234-148-4 Reg.nr.: 01-2119970376-29-xxxx | N ¹ -(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317 | 2.5-10% |

· **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** Instantly remove any clothing soiled by the product.

· **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact**

Instantly 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 doctor.

· **After swallowing**

Rinse the mouth with water immediately

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- Do not induce vomiting; instantly call for medical help.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor** No particular measures are known - treat according to symptoms.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Formation of poisonous gases during heating or in fires.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
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**
Ensure adequate ventilation
Wear protective clothing.
Avoid contact with eyes and skin.
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Do not allow to enter the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
Clean the accident area carefully.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Keep containers tightly sealed.
Prevent formation of aerosols.
Do not inhale the vapours released during application.
The usual precautionary measures for handling chemicals must be observed.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in unopened original containers.
Provide floor trough without outlet.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store under dry conditions.
Protect from frost.
- **Storage class 8 A**

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SECTION 8: Exposure controls/personal protection· **Additional information about design of technical systems:** No further data; see item 7.· **8.1 Control parameters**· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs****CAS: 100-51-6 Benzyl alcohol**

| | | |
|------------|--|--|
| Oral | DNEL Langzeit Verbraucher / Long-term consumer | 5 mg/kg/bw/d (-) |
| Dermal | DNEL - Arbeiter / worker | 9.5 mg/kg/bw/d (-) ((langfristig)) |
| | DNEL Langzeit Verbraucher / Long-term consumer | 5.7 mg/kg/bw/d (-) |
| Inhalative | DNEL - Arbeiter / worker | 90 mg/m ³ (-) ((langfristig)) |
| | DNEL Langzeit Verbraucher / Long-term consumer | 5.7 mg/m ³ (-) |

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | | |
|------------|--------------------------|----------------------------|
| Inhalative | DNEL - Arbeiter / worker | 20.1 mg/m ³ (-) |
|------------|--------------------------|----------------------------|

· **PNECs****CAS: 100-51-6 Benzyl alcohol**

| | |
|--|------------------------------------|
| PNEC Langzeit Wasser / Long-term water | 1 mg/l (Frischwasser (freshwater)) |
| | 0.1 mg/l (Meerwasser (seawater)) |

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | |
|--|---------------------------------------|
| PNEC Langzeit Wasser / Long-term water | 0.06 mg/l (Frischwasser (freshwater)) |
| | 0.006 mg/l (Meerwasser (seawater)) |

· **Additional information:** The lists that were valid during the compilation were used as basis.· **8.2 Exposure controls**· **Personal protective equipment**· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Use skin protection cream for preventive skin protection.

Do not eat, drink or smoke while working.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes.

Take off immediately all contaminated clothing

Store protective clothing separately.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Wear a respirator if an aerosol or mist forms.

· **Recommended filter device for short term use:**

Combination filter A-P2

· **Protection of hands:**

Only use chemical-protective gloves with CE-labelling of category III.

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

To minimise the wetness in the glove due to perspiration changing of gloves during a shift is required.

Check the permeability prior to each renewed use of the glove.

Preventive skin protection by use of skin-protecting agents is recommended.

· **Material of gloves**

Nitrile rubber, NBR

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Recommended thickness of the material: $\geq > 0.5$ mm mm

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

· **Not suitable are gloves made of the following materials:**

Leather gloves

Strong gloves

· **Eye protection:**



Tightly sealed safety glasses.

· **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: Yellowish

· **Odour:** Amine-like

· **Change in condition**

Melting point/Melting range: Not determined

Boiling point/Boiling range: 100 °C

· **Flash point:** > 100 °C

· **Ignition temperature:** 380 °C

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Critical values for explosion:**

Lower: 1.3 Vol %

Upper: 13.0 Vol %

· **Vapour pressure at 20 °C:** 23 hPa

· **Density** Not determined

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- **Solubility in / Miscibility with Water:** *mixable*
- **Viscosity:**
dynamic: *Not determined.*
- **9.2 Other information** *No further relevant information available.*

SECTION 10: Stability and reactivity

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *none, if used as directed*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:**
strong acids
strong bases
strong oxidizing agents
- **10.6 Hazardous decomposition products:** *none, if stored and handled correctly.*

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed or if inhaled.

· **LD/LC50 values that are relevant for classification:****CAS: 100-51-6 Benzyl alcohol**

| | | |
|------------|------|-------------------------------|
| Oral | LD50 | 1040 mg/kg (rat) |
| Dermal | LD50 | 2000 mg/kg (rbt) (RTECS) |
| Inhalative | LD50 | > 4178 mg/l (rat) (LC50 (4h)) |

CAS: 97043-91-9 Alcohols, C9-16, ethoxylated

| | | |
|------|------|------------------|
| Oral | LD50 | >300 mg/kg (rat) |
|------|------|------------------|

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | | |
|------------|-------------------------------------|----------------------------------|
| Oral | LD50 | 1030 mg/kg (rat) |
| | NOEL Teratogenität / Teratogenicity | 250 mg/kg (rat) |
| | NOEL maternal | 50 mg/kg (rat) |
| Dermal | LD50 | > 2000 mg/kg (rat) (OECD TG 402) |
| | | 1840 mg/kg (rab) |
| Inhalative | LC50/4 h | > 5.01 mg/l (rat) (OECD TG 403) |

CAS: 2579-20-6 1,3-Cyclohexanedimethanamine

| | | |
|--------|------|------------------|
| Dermal | LD50 | 1700 mg/kg (rab) |
|--------|------|------------------|

CAS: 10563-29-8 N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

| | | |
|--------|------|------------------------|
| Oral | LD50 | 681 - 2000 mg/kg (rat) |
| Dermal | LD50 | 1310 mg/kg (rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.

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- **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** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:****CAS: 100-51-6 Benzyl alcohol**

| | |
|--|---|
| Algentoxizität / Algae toxicity | 79 mg/l (<i>Scenedesmus quadricauda</i>) (EC50 (3h)) 770 mg/l (Alge) (ErC50 (72h)) 640 mg/l (<i>Scenedesmus subspicatus</i>) (EC50 (96h)) |
| BSB-5 | 1550 mg O2/g (-) |
| BSB5-Wert | 1.55 g/g (-) |
| Bakterientoxizität / Bacteria toxicity | 71.4 mg/l (<i>Photobacterium phosphoreum</i>) (EC50 (30 min); IUCLID) > 658 mg/l (<i>Pseudomonas putida</i>) (EC50 (16h)) |
| Daphnientoxizität / Daphnia toxicity | 400 mg/l (<i>daphnia</i>) (EC50 (24h); IUCLID) 230 mg/l (<i>Daphnia magna</i>) (EC50 (48h)) |
| Fischttoxizität / Fish toxicity | 460 mg/l (<i>Pimephales promelas</i>) (LC50 (96h)) 645 mg/l (<i>Goldorfe (Leuciscus idus)</i>) (LC50 (96h)) |
| closed bottel test | 90 % (-) |

CAS: 97043-91-9 Alcohols, C9-16, ethoxylated

| | |
|--------------------------------------|--|
| BSB-5 | 774 mg O2/g () (EN 1899-1) |
| CSB | 1816 mg O2/g (-) (DIN 38409 H41) |
| Daphnientoxizität / Daphnia toxicity | 3.7 mg/l (<i>daphnia</i>) (EC50 (24h)) |
| Fischttoxizität / Fish toxicity | 4.3 mg/l (<i>Goldorfe (Leuciscus idus)</i>) (LC50 (48h)) |

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

| | |
|--|---|
| Algentoxizität / Algae toxicity | 50 mg/l (<i>Scenedesmus subspicatus</i>) (EC50 (72h)) |
| Bakterientoxizität / Bacteria toxicity | 1120 mg/l (<i>Pseudomonas putida</i>) (EC10 (18h)) |
| Daphnientoxizität / Daphnia toxicity | 23 mg/l (<i>Daphnia magna</i>) (EC50 (48h)) |
| Fischttoxizität / Fish toxicity | 110 mg/l (<i>Brachydanio rerio</i>) (LC50 (96h)) |
| LC0 (96h) | 70 mg/l (<i>Brachydanio rerio</i>) |
| NOEC | (504h) 3 mg/l (<i>Daphnia magna</i>) (72h) 1.5 mg/l (<i>Scenedesmus subspicatus</i>) |

CAS: 2579-20-6 1,3-Cyclohexanedimethanamine

| | |
|------|---|
| EC50 | 90 mg/l (<i>Pseudomonas putida</i>) |
| LC50 | 130 mg/l (<i>Goldorfe (Leuciscus idus)</i>) |

CAS: 10563-29-8 N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

| | |
|--|---|
| Algentoxizität / Algae toxicity | 181 mg/l (<i>Pseudomonas putida</i>) (EC50 (16h)) |
| Bakterientoxizität / Bacteria toxicity | > 1000 mg/l (<i>Belebtschlamm</i> bakterien) (EC20 (0,5h)) |
| Fischttoxizität / Fish toxicity | 220 mg/l (<i>Leuciscus idus</i>) (LC50 (96h)) |

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- **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.
- **Ecotoxicological effects:** Not determined
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into soil.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

* **SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.

· **European waste catalogue**

| | |
|----------|---|
| 08 00 00 | WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS |
| 08 02 00 | wastes from MFSU of other coatings (including ceramic materials) |
| 08 02 99 | wastes not otherwise specified |

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

* **SECTION 14: Transport information**

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN2735

- **14.2 UN proper shipping name**
- **ADR** 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine)
- **IMDG, IATA** AMINES, LIQUID, CORROSIVE, N.O.S. (1.3-Cyclohexanedimethanamine)

· **14.3 Transport hazard class(es)**

- **ADR**



- **Class** 8 (C7) Corrosive substances.
- **Label** 8

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· **IMDG, IATA**

· **Class** 8 Corrosive substances.
· **Label** 8

· **14.4 Packing group**
· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**
· **Marine pollutant:** No

· **14.6 Special precautions for user** Warning: Corrosive substances.
· **Kemler Number:** 80
· **EMS Number:** F-A,S-B
· **Segregation groups** Alkalis

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**
· **Excepted quantities (EQ):** E2
· **Limited quantities (LQ)** 1L
· **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
· **Transport category** 2
· **Tunnel restriction code** E

· **IMDG**
· **Limited quantities (LQ)** 1L
· **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine), 8, III

* **SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Technical instructions (air):**
- **VOC EU %** 0.00 %
- **Water hazard 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**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Changes made since last issue dated 31.07.2014 at the following points: *

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· **Relevant phrases**

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H332 Harmful if inhaled.
 H412 Harmful to aquatic life with long lasting effects.

· **Department issuing data specification sheet:**

IGG-AD Ingenieurbüro für Gefahrstoff- und Gefahrgutberatung
 Bismarckstraße 10
 D-68623 Lampertheim
 Fax: 0049-(0)6206-58422 <http://www.igg-ad.de> info@igg-ad.de

· **Contact:** Dr. U. Prinz (u.prinz@igg-ad.de)

· **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)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 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, Hazard Category 4
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· *** Data compared to the previous version altered.**

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