

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/12/2011

Reviewed on 06/12/2011

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

· **Product identifier**

· **Trade name:** **ROMPOX DRÄN PLUS Comp. B**

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

· **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

· **Information department:** Product Safety Department

· **Emergency telephone number:**



































Tel.: +49(0)2225/70328-11
Fax +49(0)2225/70328-28

2 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol  Xn R20/22 -----  H302;  H332	25-50%
CAS: 2855-13-2 EINECS: 220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine  C R34;  Xn R21/22;  Xi R43 R52/53 -----  H314;  H302;  H312;  H317;  H412	10-25%
CAS: 2579-20-6 EINECS: 219-941-5	1,3-Cyclohexanedimethanamine  C R35;  Xn R20/21/22 -----  H301;  H314;  H318;  H312;  H332	2.5-10%
CAS: 10563-29-8 EINECS: 234-148-4	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine  C R35;  Xn R21/22;  Xi R43 -----  H301;  H314;  H318;  H312;  H317	2.5-10%
CAS: 25154-52-3 EINECS: 246-672-0	nonylphenol  C R34;  Xn R22-62-63;  N R50/53 Repr. Cat. 3 -----  H361;  H314;  H400;  H410;  H302	2.5-10%

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

3 Hazards identification

· **Classification of the substance or mixture**



GHS08 Health hazard

H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

H314 Causes severe skin burns and eye damage.

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GHS09 Environment

H411 Toxic to aquatic life with long lasting effects.



GHS07

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H313 May be harmful in contact with skin.

H333 May be harmful if inhaled.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R34: Causes burns.



Xn; Harmful

R20/22: Harmful by inhalation and if swallowed.



Xi; Irritant

R43: May cause sensitization by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**



C Corrosive

N Dangerous for the environment

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine

1,3-Cyclohexanedimethanamine

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Benzyl alcohol

· **Risk phrases:**

20/22 Harmful by inhalation and if swallowed.

34 Causes burns.

43 May cause sensitization by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of soap and water

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately.

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60 This material and its container must be disposed of as hazardous waste.

- **Classification system**
- **NFPA ratings (scale 0-4)**



Health = 3
Fire = 0
Reactivity = 0

4 First aid measures

- **General information** 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**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Information for doctor** No particular measures are known - treat according to symptoms.

5 Firefighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
Avoid contact with eyes and skin.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Do not allow to penetrate the ground/soil.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.
Ensure adequate ventilation.
- **Reference to other sections**
Clean the accident area carefully.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Keep receptacles 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.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 - Keep containers securely closed and dry, store at 15 - 20°C.
 - Store only in the original receptacle.
 - Provide floor trough without outlet.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
 - Store receptacle in a well ventilated area.
 - Protect from frost.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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

100-51-6 Benzyl alcohol (25-50%)

WEEL 44 mg/m³, 10 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
 - Keep away from foodstuffs, beverages and feed.
 - Wash hands before breaks and at the end of work.
 - Immediately remove all soiled and contaminated clothing
 - Store protective clothing separately.
 - Avoid contact with the eyes and skin.
 - Use skin protection cream for skin protection.
 - Do not eat, drink, smoke or sniff while working.
- **Breathing equipment:**
 - Use suitable respiratory protective device in case of insufficient ventilation.
 - Wear a respirator if an aerosol or mist forms.
- **Recommended filter device for short term use:**



Filter AX

- **Protection of hands:**
 - Protective gloves.



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

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

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

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· **Material of gloves**

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Recommended thickness of the material: ≥ 0.5 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:** PVC gloves

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

Strong gloves

Leather gloves

· **Eye protection:**



Tightly sealed goggles.

· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: Fluid

Color: Yellowish

· **Odor:** Amine-like

· **Change in condition**

Melting point/Melting range: undetermined

Boiling point/Boiling range: $> 100^{\circ}\text{C}$ ($> 212^{\circ}\text{F}$)

· **Flash point:** $> 100^{\circ}\text{C}$ ($> 212^{\circ}\text{F}$)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix

· **Solvent content:**

Organic solvents: 0.0 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Incompatible materials:**

strong acids

strong bases

strong oxidizing agents

· **Hazardous decomposition products:** none, if stored and handled correctly.

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11 Toxicological information

· **Acute toxicity:**

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

100-51-6 Benzyl alcohol

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	4178 mg/l (rat)

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

Oral	LD50	1030 mg/kg (rat)
	NOEL Teratogenität	250 mg/kg (rat)
	NOEL maternal	50 mg/kg (rat)

2579-20-6 1,3-Cyclohexanedimethanamine

Oral	LD50	880 mg/kg (rat)
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10563-29-8 N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Oral	LD50	1670 mg/kg (rat)
Dermal	LD50	1310 mg/kg (rat)

25154-52-3 nonylphenol

Oral	LD50	1620 mg/kg (rat)
Dermal	LD50	2140 mg/kg (rab)

· **Primary irritant effect:**

· **on the skin:** Caustic effect on skin and mucous membranes.

· **on the eye:** Strong caustic effect.

· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

· **Acquatic toxicity:**

100-51-6 Benzyl alcohol

BSB5-Wert	1.55 g/g (-)
EC10	658 mg/l (<i>Pseudomonas putida</i>)
EC50	72 (30min) mg/l (<i>Photobacterium phosphoreum</i>) 400 mg/l (<i>daphnia</i>) (96h) 640 mg/l (<i>Scenedesmus subspicatus</i>) 658 (16-18h) mg/l (<i>Pseudomonas putida</i>)
LC50	645 (48h) mg/l (<i>Goldorfe</i>) 10 (96h) mg/l (<i>Lepomis macrochirus (bluegill)</i>) 10 - 1000 (96h) mg/l (<i>Daphnia magna</i>)
LC50 (96h)	460 mg/l (<i>Pimephales promelas</i>)
LC50(48h)	646 mg/l (<i>Leuciscus idus melanotus</i>)
closed bottel test	90 % (-)

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

EC10	(18h) 1120 mg/l (<i>Pseudomonas putida</i>)
EC50	(48h) 23 mg/l (<i>Daphnia magna</i>) (72h) 37 mg/l (<i>Scenedesmus subspicatus</i>)
LC0 (96h)	70 mg/l (<i>Brachydanio rerio</i>)
LC50	(96h) 110 mg/l (<i>Brachydanio rerio</i>)
NOEC	(504h) 3 mg/l (<i>Daphnia magna</i>) (72h) 1.5 mg/l (<i>Scenedesmus subspicatus</i>)

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

Toxizität	96h < 1 mg/l (fish) 48h < 1 mg/l (<i>Daphnia magna</i>)
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25154-52-3 nonylphenol

EC50	(48h): < 1 mg/l (<i>Daphnia magna</i>)
LC50	(96h) 0.135 mg/l (<i>Pimephales promelas</i>) (96h) 0.23 mg/l (<i>Salmo gairdneri</i>) (96h) 0.13-0.19 mg/l (<i>Belebschlamm</i>)

- **Ecotoxicological effects:** Not determined
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** For disposal, local regulations issued by the authorities must be observed.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**



- **Hazard class:** 8
- **Identification number:** UN2735
- **Packing group:** III
- **Proper shipping name (technical name):** AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, ISOPHORONEDIAMINE)
- **Label** 8

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· **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 8 (C7) Corrosive substances
- **Danger code (Kemler):** 80
- **UN-Number:** 2735
- **Packaging group:** III
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, ISOPHORONEDIAMINE), ENVIRONMENTALLY HAZARDOUS

· **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2735
- **Label:** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Propper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, ISOPHORONEDIAMINE)

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2735
- **Label:** 8
- **Packaging group:** III
- **Propper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, ISOPHORONEDIAMINE)

- **UN "Model Regulation":** UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine, ISOPHORONEDIAMINE), ENVIRONMENTALLY HAZARDOUS, 8, III

15 Regulatory information

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Markings according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**



C Corrosive

N Dangerous for the environment

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine

1,3-Cyclohexanedimethanamine

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Benzyl alcohol

· **Risk phrases:**

20/22 Harmful by inhalation and if swallowed.

34 Causes burns.

43 May cause sensitization by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of soap and water

36/37/39 Wear suitable protective clothing, gloves and eyeface protection.

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

· **Sara**

· **Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

100-51-6 Benzyl alcohol

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

2579-20-6 1,3-Cyclohexanedimethanamine

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

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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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.

*Changes made since last issue dated 21.05.2005 at the following points: **

· **Relevant phrases**

- H301 Toxic if swallowed.
- 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.
- H361 Suspected of damaging fertility or the unborn child.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R20/22 Harmful by inhalation and if swallowed.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R35 Causes severe burns.
- R43 May cause sensitization by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child

· **Department issuing MSDS:**

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:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent