

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

Printing date 28.06.2019

Version number 7.0

Revision: 28.06.2019

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

· **1.1 Product identifier**

· **Trade name:** Epoxy All-Round A component

· **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 binder

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

· **Manufacturer/Supplier:**

Nedform BV

Hofdwarweg 20, 6161 DD, Geleen, The Netherlands

Tel: +31(0)464106260

Email: info@nedform.com

· **1.4 Emergency telephone number:**

Leitstelle Werkfeuerwehr

03461 434333

### SECTION 2: Hazards identification

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

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



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

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.

· **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

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**Trade name: Epoxy All-Round A component**

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

*bis[4-(2,3-epoxypropoxy)phenyl]propane*

*Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane oxirane, mono[(C12-14-alkyloxy)methyl] derivs*

- **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.*

- **Precautionary statements**

*P261 Avoid breathing dust/fume/gas/mist/vapours/spray.*

*P273 Avoid release to the environment.*

*P280 Wear protective gloves / 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.*

*P333+P313 If skin irritation or rash occurs: Get medical advice/attention.*

*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:** Resin mixture

- **Dangerous components:**

CAS: 1675-54-3 EINECS: 216-823-5 Reg.nr.: 01-2119456619-26-0006	<i>bis[4-(2,3-epoxypropoxy)phenyl]propane</i>  <i>Aquatic Chronic 2, H411</i>  <i>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</i>	60-100%
EC number: 701-263-0 Reg.nr.: 01-2119454392-40-0003	<i>Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane</i> <i>Alternative CAS number: 9003-36-5</i>  <i>Aquatic Chronic 2, H411</i>  <i>Skin Irrit. 2, H315; Skin Sens. 1, H317</i>	25-<50%
CAS: 68609-97-2 EINECS: 271-846-8 Reg.nr.: 01-2119485289-22-0005	<i>oxirane, mono[(C12-14-alkyloxy)methyl] derivs</i>  <i>Skin Irrit. 2, H315; Skin Sens. 1, H317</i>	10-<25%

- **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:** 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.*

*Immediately rinse with water.*

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- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse out mouth and then drink plenty of water.
- **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.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Do not allow to penetrate the ground/soil.  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store receptacle in a well ventilated area.  
Keep container tightly sealed.
- **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.

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· **8.1 Control parameters**· **Ingredients 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****1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane**

Oral	Acute - systemic effects	0.5 mg/kg bw/day (general population)
Dermal	Long term - systemic effects	0.0893 mg/kg bw/day (general population) 0.75 mg/kg bw/day (worker)
Inhalative	Long term - systemic effects	0.87 mg/m <sup>3</sup> (general population) 4.93 mg/m <sup>3</sup> (worker)

**Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane**

Oral	Long term - systemic effects	6.25 mg/kg bw/day (general population)
Dermal	Long term - systemic effects	62.5 mg/kg bw/day (general population) 104.15 mg/kg bw/day (worker)
Inhalative	Long term - systemic effects	8.7 mg/m <sup>3</sup> (general population) 29.39 mg/m <sup>3</sup> (worker)

· **PNECs****1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane**

PNEC aqua	0.006 mg/L (fresh water)
	0.001 mg/L (marine water)
PNEC sediment	0.341 mg/kg sediment (fresh water)
	0.034 mg/kg sediment (marine water)
PNEC STP	10 mg/l (sewage)
PNEC soil	0.065 mg/kg soil dw (soil)
PNEC oral	11 mg/kg food (secondary poisoning)

**Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane**

PNEC aqua	0.025 mg/L (Intermittent releases)
	0.003 mg/L (fresh water)
	0 mg/L (marine water)
PNEC sediment	0.294 mg/kg sediment (fresh water)
	0.029 mg/kg sediment (marine water)
PNEC STP	10 mg/l (sewage)
PNEC soil	0.237 mg/kg soil dw (soil)

· **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 eyes and skin.

· **Respiratory protection:** Not required.

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**· Protection of hands:**

Protective gloves

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

**· Material of gloves**

Recommended thickness of the material:  $\geq 0.4$  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.

Butyl rubber, BR

Nitrile rubber, NBR

**· Penetration time of glove material**

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

The exact break through 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:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Light yellow
<b>· Odour:</b>	Characteristic
<b>· Odour threshold:</b>	Not determined.

**· pH-value:** Not determined.

**· Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	201 °C
<b>Solidification point:</b>	-5 °C

**· Flash point:** 140 °C

**· Flammability (solid, gas):** Not applicable.

**· Ignition temperature:** 230 °C

**· Decomposition temperature:** Not determined.

**· Auto-ignition temperature:** Product is not selfigniting.

**· Explosive properties:** Product does not present an explosion hazard.

**· Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

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· <b>Vapour pressure at 20 °C:</b>	<2 hPa
· <b>Density at 20 °C:</b>	1.13787 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>aromatic hydrocarbons:</b>	Not miscible or difficult to mix.
· <b>organic solvents:</b>	Soluble in many organic solvents.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>9.2 Other information</b>	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**  
Exothermic polymerisation.  
May produce violent reactions with bases and numerous organic substances including alcohols and amines.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Irritant gases/vapours

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

**1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane**

Oral	LD50	15,000 mg/kg (rat)
Dermal	LD50	23,000 mg/kg (rabbit)

**Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane**

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

- **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 (carcinogenicity, 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.

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- **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:

##### **1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane**

LC50/96h	2 mg/l (Oncorhynchus mykiss)
EC50/48h	1.8 mg/l (daphnia magna)
EC50/72h	11 mg/l (algae)

##### **Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-(2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy) methyl]oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane**

LC50/96h	2.54 mg/l (fish)
EC50/48h	2.55 mg/l (daphnia magna)
EC50/72h	1.8 mg/l (algae)

- **12.2 Persistence and degradability** No further relevant information available.

- **Other information:** The product is not easily biodegradable.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

##### · Ecotoxicological effects:

- **Remark:** Toxic for fish

##### · Additional ecological information:

##### · General notes:

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.

- **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 adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

##### · Uncleaned packaging:

##### · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

### SECTION 14: Transport information

#### · 14.1 UN-Number

- **ADR, IMDG, IATA**

UN3082

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<ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	<p>3082 UMWELTGEFÄHRDENDER STOFF, FLÜSSIG, N.A.G. (Epoxidharz)</p> <p>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxide resin), MARINE POLLUTANT</p> <p>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxide resin)</p>
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- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p>
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- **14.4 Packing group**

- **ADR, IMDG, IATA**

III

- **14.5 Environmental hazards:**

Product contains environmentally hazardous substances: bis[4-(2,3-epoxypropoxy)phenyl]propane

- **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.

- **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

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- **Transport category**

3

- **Tunnel restriction code**

-

- **IMDG**

- **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

- **UN "Model Regulation":**

UN 3082 ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXIDE RESIN), 9, III

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### SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	ACTIVE
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	ACTIVE

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category E2** Hazardous to the Aquatic Environment

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations:**

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

· **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.

· **Relevant phrases**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Abteilung Qualitätssicherung

· **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

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

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2