

SAFETY DATA SHEET



TEKNOPOX FILLER 2112

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

1.1 Product identifier

Product name : TEKNOPOX FILLER 2112

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : NHS: 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
Repr. 1B, H360F
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H360F - May damage fertility.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention :
P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P273 - Avoid release to the environment.

Response :
P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

SECTION 2: Hazards identification

Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: Contains: Bis[4-(2,3-epoxypropoxy)phenyl]propane; Oxirane, mono[(C12-14-alkyloxy)methyl]derivs.; Reaction mass of 2,2'-[methylenebis (2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis (4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl] phenoxy}methyl)oxirane and Benzyl alcohol
Supplemental label elements	: Contains epoxy constituents. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Restricted to professional users.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Bis[4-(2,3-epoxypropoxy)phenyl]propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥25 - ≤50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	REACH #: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4	≤10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 1B, H360F	-	[1]
Reaction mass of 2,2'-[methylenebis (2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis (4,1-phenyleneoxymethylene)] bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl] phenoxy}methyl)oxirane	REACH #: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5	≤10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
Benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≤3	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	ATE [Oral] = 1200 mg/kg	[1]
Toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	<3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373	-	[1] [2]

SECTION 3: Composition/information on ingredients

Naphta (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised	REACH #: 01-2119555292-40 EC: 701-299-7	≤3	Asp. Tox. 1, H304 Skin Sens. 1A, H317 Aquatic Chronic 3, H412	-	[1]
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	REACH #: 01-2119979085-27 EC: 309-629-8 CAS: 100545-48-0	<1	Skin Sens. 1B, H317	-	[1]

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 4: First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** :  No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200 tonnes	500 tonnes

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Toluene	EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed through skin. STEL 15 minutes: 384 mg/m ³ . TWA 8 hours: 191 mg/m ³ . TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
 Bis[4-(2,3-epoxypropoxy)phenyl]propane	DNEL - General population - Long term - Dermal 89.3 µg/kg bw/day <u>Effects</u> : Systemic DNEL - General population - Long term - Oral 0.5 mg/kg bw/day <u>Effects</u> : Systemic DNEL - Workers - Long term - Dermal 0.75 mg/kg bw/day <u>Effects</u> : Systemic DNEL - General population - Long term - Inhalation 0.87 mg/m ³ <u>Effects</u> : Systemic DNEL - Workers - Long term - Inhalation 4.93 mg/m ³ <u>Effects</u> : Systemic
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	DNEL - General population - Long term - Oral 0.5 mg/kg bw/day <u>Effects</u> : Systemic DNEL - General population - Long term - Dermal 0.5 mg/kg bw/day <u>Effects</u> : Systemic DNEL - General population - Long term - Inhalation 0.87 mg/m ³ <u>Effects</u> : Systemic DNEL - Workers - Long term - Dermal

SECTION 8: Exposure controls/personal protection

1 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation

3.6 mg/m³
Effects: Systemic

DMEL - Workers - Short term - Dermal

8.3 µg/cm²
Effects: Local

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

DNEL - General population - Long term - Oral

6.25 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation

8.7 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Inhalation

29.39 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal

62.5 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Dermal

104.15 mg/kg bw/day
Effects: Systemic

Benzyl alcohol

DNEL - General population - Long term - Oral

4 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal

4 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation

5.4 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Dermal

8 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Oral

20 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Dermal

20 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation

22 mg/m³
Effects: Systemic

DNEL - General population - Short term - Inhalation

27 mg/m³
Effects: Systemic

SECTION 8: Exposure controls/personal protection

Toluene

DNEL - Workers - Short term - Dermal

40 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Inhalation

110 mg/m³

Effects: Systemic

DNEL - General population - Long term - Oral

8.13 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

56.5 mg/m³

Effects: Local

DNEL - General population - Long term - Inhalation

56.5 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

192 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

192 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

226 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Inhalation

226 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

226 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

384 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Inhalation

384 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

384 mg/m³

Effects: Systemic

Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine

DNEL - General population - Long term - Inhalation

0.055 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

0.308 mg/m³

Effects: Local

PNECs

Product/ingredient name

Result

SECTION 8: Exposure controls/personal protection

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

Fresh water
0.003 mg/l

Fresh water sediment
0.294 mg/kg

Marine water sediment
0.029 mg/kg

Sewage Treatment Plant
10 mg/l

Soil
0.237 mg/kg

8.2 Exposure controls

Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations : Wear suitable gloves tested to EN374.

< 1 hour (breakthrough time): Nitrile gloves. thickness > 0.3 mm

> 8 hours (breakthrough time): 4H / Silver Shield® gloves.

Wash hands before breaks and immediately after handling the product.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Filter type: A

Filter type (spray application): A P

SECTION 8: Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.
Colour : Various
Odour : Slight
Odour threshold : Not available.
Melting point/freezing point : Not available.
Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
Toluene	110.6	231.1	
Benzyl alcohol	205.3	401.5	

Flammability : Not available.
Lower and upper explosion limit : Lower: 1.1% (toluene)
Upper: 13% (benzyl alcohol)
Flash point : Closed cup: >100°C (>212°F)
Auto-ignition temperature :

Ingredient name	°C	°F	Method
Benzyl alcohol	436	816.8	
Toluene	480	896	

Decomposition temperature : Not available.
pH : Not applicable.
Viscosity : Not available.
Solubility(ies) :
Not available.

Solubility in water : Not available.
Partition coefficient: n-octanol/ water : Not applicable.
Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Toluene	23.17	3.1				
Reaction mass of 2,2'-(methylenebis(2,1-phenyleneoxymethylene))bis(oxirane) and 2,2'-(methylenebis(4,1-phenyleneoxymethylene))bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane	0.62	0.083	EU A.4			

Relative density : Not available.
Density : 1.2 g/cm³
Vapour density : Not available.
Particle characteristics

SECTION 9: Physical and chemical properties

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name

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

Result

Rabbit - Dermal - LD50

20 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross Metabolite Changes - Weight loss or decreased weight gain

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

Rat - Oral - LD50

17100 mg/kg

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

Rat - Oral - LD50

>5000 mg/kg

Rat - Dermal - LD50

>2000 mg/kg

Benzyl alcohol

Rat - Oral - LD50

1230 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Excitement Behavioral - Coma

Rabbit - Dermal - LD50

2000 mg/kg

Rat - Male, Female - Inhalation - LC50 Dusts and mists

4200 mg/m³ [4 hours]

OECD 403

SECTION 11: Toxicological information

Toluene

Rat - Oral - LD50

636 mg/kg

Rat - Inhalation - LC50 Vapour

49 g/m³ [4 hours]

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
TEKNOPOX FILLER 2112	44119.1	N/A	N/A	N/A	N/A
Bis[4-(2,3-epoxypropoxy)phenyl]propane	N/A	20000	N/A	N/A	N/A
Oxirane, mono[(C12-14-alkyloxy)methyl]derivs.	17100	N/A	N/A	N/A	N/A
Benzyl alcohol	1200	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	49	N/A

Skin corrosion/irritation

Product/ingredient name

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

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

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

Benzyl alcohol

Toluene

Result

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 uL

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 uL

Man - Skin - Mild irritant

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 16 mg

Pig - Skin - Moderate irritant

Amount/concentration applied: 100 %

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

Rabbit - Skin - Mild irritant

Amount/concentration applied: 435 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

Serious eye damage/eye irritation

Product/ingredient name

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

Toluene

Result

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 870 ug

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Toluene

Result

STOT SE 3, H336 (Narcotic effects)

SECTION 11: Toxicological information

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Toluene	STOT RE 2, H373

Aspiration hazard

Product/ingredient name	Result
Toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product]	: Not available.
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: May damage fertility.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

SECTION 11: Toxicological information

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name

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

Result

Chronic - LC50

Fish
2.54 mg/l [96 hours]

EC50

Daphnia - Daphnia - *Daphnia magna*
2.55 mg/l [48 hours]

EC50

Algae - Algae
1.8 mg/l [72 hours]

Benzyl alcohol

Acute - LC50 - Fresh water

Fish - Bluegill - *Lepomis macrochirus*
Size: 33 to 75 mm
10000 µg/l [96 hours]
Effect: Mortality

Toluene

Acute - LC50 - Fresh water

Fish - Coho salmon, silver salmon - *Oncorhynchus kisutch* - Fry
Weight: 1 g
5500 µg/l [96 hours]
Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Pseudokirchneriella subcapitata*
12500 µg/l [72 hours]
Effect: Growth

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*
Age: ≤24 hours
1000 µg/l [21 days]
Effect: Reproduction

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate
Age: ≤24 hours
5.56 mg/l [48 hours]
Effect: Intoxication

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
 Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. Reaction mass of 2,2'- [methylenebis (2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'- [methylenebis (4,1-phenyleneoxymethylene)] bis(oxirane) and 2-({2-[4- (oxiran-2-ylmethoxy)benzyl] phenoxy}methyl)oxirane Benzyl alcohol Toluene	3.77 2.7 0.87 2.73	160 to 263 - - 90	Low Low Low Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	Value
 Bis[4-(2,3-epoxypropoxy)phenyl]propane Benzyl alcohol Toluene	logKoc: 4 Koc: 10465.7 logKoc: 1.1 Koc: 12.6442 logKoc: 2.1 Koc: 117.115

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
 Bis[4-(2,3-epoxypropoxy)phenyl]propane Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. Reaction mass of 2,2'- [methylenebis (2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'- [methylenebis (4,1-phenyleneoxymethylene)] bis(oxirane) and 2-({2-[4- (oxiran-2-ylmethoxy)benzyl] phenoxy}methyl)oxirane Benzyl alcohol Toluene Naphta (petroleum), steam- cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	No No No No No No No No No No	No No No No No No No No No No	No No No No No No No No No No	No No No No No No No No No No	No No No No No No No No No No	No No No No No No No No No No	No No No No No No No No No No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Bis[4-(2,3-epoxypropoxy)phenyl]propane	No	N/A	N/A	No	N/A	N/A	N/A
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	No	N/A	No	Yes	No	N/A	No
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)] bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	No	N/A	N/A	No	N/A	N/A	N/A
Benzyl alcohol	No	N/A	N/A	No	N/A	N/A	N/A
Toluene	No	N/A	No	Yes	No	N/A	No
Naphta (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised	No	N/A	N/A	No	N/A	N/A	N/A
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	No	N/A	N/A	No	N/A	N/A	N/A

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Bis[4-(2,3-epoxypropoxy)phenyl]propane	No	No	No	No	No	No	No
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	No	No	No	No	No	No	No
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)] bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	No	No	No	No	No	No	No
Benzyl alcohol	No	No	No	No	No	No	No
Toluene	No	No	No	No	No	No	No
Naphta (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised	No	No	No	No	No	No	No
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	No	No	No	No	No	No	No

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB.
Regulation (EC) No. 1272/2008 [CLP]

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

SECTION 12: Ecological information

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

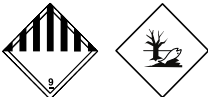
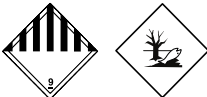
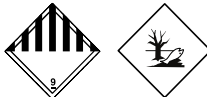
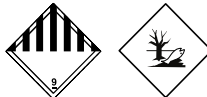
European waste catalogue (EWC) : 080111*, 200127*

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

SECTION 14: Transport information

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
TEKNOPOX FILLER 2112	≥90	3
Oxirane, mono[(C12-14-alkyloxy)methyl]	≤10	30
derivs.		30
Toluene	<3	48

Labelling : Restricted to professional users.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

(EC) No 273/2004 on drug precursors

Not listed.

(EC) No 111/2005 Trade between the Union and third countries in drug precursors

Ingredient name	%	Status
Toluene and its salts	≤3	Category 3

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

SECTION 15: Regulatory information

This product is controlled under the Seveso Directive.

Danger criteria

Category

E2

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H360F	May damage fertility.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

SECTION 16: Other information

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 22/09/2026

Date of previous issue : 06/02/2026

Version : 5

TEKNOPOX FILLER 2112

All variants

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

