# SAFETY DATA SHEET



## **TEKNOFLOOR-KOVAKITTI**

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

#### 1.1 Product identifier

: TEKNOFLOOR-KOVAKITTI **Product name** 

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

**Product use** : Puttv.

#### 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

#### **National contact**

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

#### 1.4 Emergency telephone number

#### **National advisory body/Poison Centre**

: Malta Competition and Consumer Affairs Authority (MCCAA): +356 2395 2000 Telephone number

## **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.

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# **SECTION 2: Hazards identification**

Response

: P391 - Collect spillage.

P308 + P313 - IF exposed or concerned: Get medical advice or attention.

**Storage** 

: Not applicable.

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

ethylenediamine

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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	Туре	
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	CAS: 9003-36-5	≤5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]	
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≤5	Carc. 2, H351 (inhalation)	-	[1] [*]	

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#### SECTION 3: Composition/information on ingredients REACH #: <1 Skin Sens. 1B. H317 [1] Octadecanoic acid, 12-hydroxy-, reaction 01-2119979085-27 Aquatic Chronic 3, products with EC: 309-629-8 H412 ethylenediamine CAS: 100545-48-0 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.

#### **Type**

- [1] Substance classified with a health or environmental hazard
- [\*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix.

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

: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation

**Eye contact** 

: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

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# **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 or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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".

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# **SECTION 6: Accidental release measures**

# **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.

# 6.3 Methods and material for containment and cleaning up

#### **Small spill**

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

# 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. 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.

# **Seveso Directive - Reporting thresholds**

#### **Danger criteria**

	Notification and MAPP threshold	Safety report threshold
E2	200 tonne	500 tonne

#### 7.3 Specific end use(s)

**Recommendations**: Not available.

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# **SECTION 7: Handling and storage**

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
No exposure limit value known.	

#### **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	Type	Exposure	Value	Population	Effects
Bis[4-(2,3-epoxypropoxy)phenyl] propane	DNEL	Long term Dermal	89.3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.75 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.87 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	4.93 mg/m <sup>3</sup>		Systemic
Oxirane, mono[(C12-14-alkyloxy) methyl]derivs.	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.87 mg/m³		Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.6 mg/m <sup>3</sup>	Workers	Systemic
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	DMEL	Short term Dermal	8.3 μg/cm <sup>2</sup>	Workers	Local
Oxidate	DNEL	Long term Oral	6.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	8.7 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term	29.39 mg/	Workers	Systemic

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# SECTION 8: Exposure controls/personal protection

		Inhalation	m³		
	DNEL	Long term Dermal	62.5 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term Dermal	104.15 mg/	Workers	Systemic
			kg bw/day		
Octadecanoic acid, 12-hydroxy-,	DNEL	Long term	0.055 mg/	General	Local
reaction products with		Inhalation	m³	population	
ethylenediamine					
	DNEL	Long term	0.308 mg/	Workers	Local
		Inhalation	m³		

### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
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	-
	Marine water sediment Sewage Treatment Plant	0.294 mg/kg 0.029 mg/kg 10 mg/l 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.

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# SECTION 8: Exposure controls/personal protection

**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

**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: VariousOdour: Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and : Not available.

boiling range

Flammability : Not available.

Lower and upper explosion : Lowe

limit

: Lower: Not applicable. Upper: Not applicable.

Flash point : Closed cup: >100°C (>212°F)

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

pH : Not available.

Viscosity : Not available.

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure :

	Vapour Pressure at 20°C		re at 20°C	Vapour pressure at 50°C			
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method	
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				
Oxirane, mono[(C12-14-alkyloxy) methyl]derivs.	0.00013	0.000017	OECD 104				

Relative density : Not available.

Density : 1.2 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

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# **SECTION 9: Physical and chemical properties**

**Oxidising properties** 

: Not available.

**Particle characteristics** 

Median particle size : 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	Result	Species	Dose	Exposure
Bis[4-(2,3-epoxypropoxy) phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
Oxirane, mono[ (C12-14-alkyloxy)methyl] derivs.	LD50 Oral	Rat	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	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

# Conclusion/Summary

: Based on available data, the classification criteria are not met.

### **Acute toxicity estimates**

Route	ATE value
Not available.	

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Bis[4-(2,3-epoxypropoxy) phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Oxirane, mono[ (C12-14-alkyloxy)methyl] derivs.	Skin - Moderate irritant	Rabbit	-	24 hours 500 uL	-
Reaction mass of 2,2'- [methylenebis (2,1-phenyleneoxymethylene)]	Skin - Mild irritant	Rabbit	-	24 hours 500 uL	-

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# **SECTION 11: Toxicological information**

bis(oxirane) and 2,2'-						٠
[methylenebis						
(4,1-phenyleneoxymethylene)]						
bis(oxirane) and 2-({2-[4-						
(oxiran-2-ylmethoxy)benzyl]						
phenoxy}methyl)oxirane						
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300	-	
				ug I		

**Conclusion/Summary**: Causes skin irritation.

**Sensitisation** 

**Conclusion/Summary**: May cause an allergic skin reaction.

**Mutagenicity** 

**Conclusion/Summary**: Based on available data, the classification criteria are not met.

**Carcinogenicity** 

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

**Conclusion/Summary**: Based on available data, the classification criteria are not met.

**Reproductive toxicity** 

**Conclusion/Summary**: May damage fertility.

**Teratogenicity** 

**Conclusion/Summary**: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Not available.

Information on likely routes : Not available.

of exposure

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

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# **SECTION 11: Toxicological information**

**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

: Not available.

effects

Potential delayed effects : Not available.

**Long term exposure** 

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : 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.

### 11.2.2 Other information

Not available.

# **SECTION 12: Ecological information**

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
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		Algae	72 hours
. , ,	EC50 2.55 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Chronic LC50 2.54 mg/l	Fish	96 hours
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 >1000000 μg/l Marine water	Fish - Fundulus heteroclitus	96 hours

**Conclusion/Summary**: Toxic to aquatic life with long lasting effects.

# 12.2 Persistence and degradability

**Conclusion/Summary**: This product has not been tested for biodegradation.

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# **SECTION 12: Ecological information**

### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Oxirane, mono[ (C12-14-alkyloxy)methyl] derivs.	3.77	160 to 263	Low
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		-	Low

### 12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

# 12.6 Endocrine disrupting properties

Not available.

#### 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.

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.

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# **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.

<u>Tunnel code</u> (-)

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.

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

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# **SECTION 15: Regulatory information**

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

**Labelling** : Restricted to professional users.

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

**Persistent Organic Pollutants** 

Not listed.

**Seveso Directive** 

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.

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# **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	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360F	Calculation method
Aquatic Chronic 2, H411	Calculation method

## Full text of abbreviated H statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Full text of classifications [CLP/GHS]

Aquatic Chronic 2 Aquatic Chronic 3 Carc. 2 Eye Irrit. 2 Repr. 1B	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 CARCINOGENICITY - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 REPRODUCTIVE TOXICITY - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Čategory 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1B	SKIN SENSITISATION - Category 1B

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TEKNOFI OOR-KOVAKITTI 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.

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