SAFETY DATA SHEET



EPINOX BOSMAN 54 - All variants

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

1.1 Product identifier

Product name : EPINOX BOSMAN 54 - All variants

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 : Prod-safe@teknos.com

responsible for this SDS

National contact

Teknos Ireland Limited, 52 Ballymoughan Road, Magherafelt, BT45 6HN, UK. Tel. +44 (0) 2879 301 472.

1.4 Emergency telephone number

National advisory body/Poison Centre : NHS: 111 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]

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 **STOT RE 2, H373**

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 : Warning

Hazard statements : H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P260 - Do not breathe vapour.

P264 - Wash thoroughly after handling.

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SECTION 2: Hazards identification

Response

: P314 - Get medical advice/attention if you feel unwell.

Storage

: Not applicable.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Hazardous ingredients

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis

(4,1-phenyleneoxymethylene)]bis[oxirane

Xylene

Supplemental label elements

: 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

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

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
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≥25 - ≤50	Carc. 2, H351 (inhalation)	-	[1] [*]
Phenol, 4,4'- (1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bis[oxirane	CAS: 25036-25-3	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
Xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - <20	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (oral, inhalation) Asp. Tox. 1, H304	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/ I	[1] [2]
n-Butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≤10	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
1-Ethoxy-2-propanol	REACH #: 01-2119462792-32 EC: 216-374-5 CAS: 1569-02-4	≤9.8	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1]

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SECTION 3: Composition/information on ingredients Index: 603-177-00-8 ≤3 ATE [Inhalation Ethylbenzene REACH #: Flam. Liq. 2, H225 [1] [2] 01-2119489370-35 Acute Tox. 4, H332 (vapours)] = 11 mg/ EC: 202-849-4 STOT RE 2, H373 CAS: 100-41-4 (hearing organs) (oral, Index: 601-023-00-4 inhalation) Asp. Tox. 1, H304 2-Methoxy-1-methylethyl REACH #: ≤0.3 Flam. Liq. 3, H226 [1] [2] STOT SE 3, H336 acetate 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7 propylidynetrimethanol REACH #: ≤0.3 Repr. 2, H361d [1] 01-2119486799-10 EC: 201-074-9 CAS: 77-99-6 Acute Tox. 3, H301 ATE [Oral] = 100 Formaldehyde REACH #: < 0.1 [1] [2] mg/kg 01-2119488953-20 Acute Tox. 3, H311 ATE [Dermal] = EC: 200-001-8 Acute Tox. 2, H330 Skin Corr. 1B, H314 CAS: 50-00-0 270 mg/kg Index: 605-001-00-5 Eye Dam. 1, H318 ATE [Inhalation (gases)] = 250 ppm Skin Sens. 1, H317 Skin Corr. 1B, Muta. 2, H341 H314: C ≥ 25% Carc. 1B, H350 STOT SE 3, H335 Skin Irrit. 2, H315: $5\% \le C < 25\%$ Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: $5\% \leq C < 25\%$ Skin Sens. 1. H317: C ≥ 0.2% STOT SE 3, H335: C ≥ 5% 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.

<u>Type</u>

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [*] 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.

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SECTION 4: First aid measures

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 following exposure or if feeling unwell. 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 following exposure or if feeling unwell. 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. 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

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 : No specific data.

Skin contact : Adverse symptoms may include the following:

> irritation redness

Ingestion : No specific data.

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 dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

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SECTION 5: Firefighting measures

Hazardous combustion products

: Decomposition products may include the following materials: carbon dioxide

carbon monoxide sulfur oxides

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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".

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).

6.3 Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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 noncombustible, 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.

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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.

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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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidising materials. 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
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

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

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		
Xylene	EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,		
•	p- or mixed isomers] Absorbed through skin.		
	STEL: 441 mg/m³ 15 minutes.		
	TWA: 50 ppm 8 hours.		
	TWA: 220 mg/m³ 8 hours.		
	STEL: 100 ppm 15 minutes.		
n-Butyl acetate	EH40/2005 WELs (United Kingdom (UK), 1/2020).		
•	STEL: 966 mg/m³ 15 minutes.		
	STEL: 200 ppm 15 minutes.		
	TWA: 724 mg/m³ 8 hours.		
	TWA: 150 ppm 8 hours.		

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SECTION 8: Exposure controls/personal protection

Ethylbenzene EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m3 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m³ 8 hours. 2-Methoxy-1-methylethyl acetate EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 548 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 274 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. EH40/2005 WELs (United Kingdom (UK), 1/2020). Formaldehyde STEL: 2.5 mg/m³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2 ppm 8 hours. TWA: 2.5 mg/m³ 8 hours.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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
titanium dioxide	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Oral	700 mg/kg bw/day	General population	Systemic
Xylene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	14.8 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	108 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	65.3 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m³	Workers	Local
n-Butyl acetate	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	12 mg/m ³	General	Systemic

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SECTION 8: Exposure controls/personal protection

<u>-</u>	<u> </u>	Inhalation		population	
	DNEL	Long term	48 mg/m³	Workers	Systemic
	DIVLL	Inhalation	40 mg/m	VVOIRCIS	Cysternic
	DNEL	Short term Oral	2 mg/kg	General	Systemic
	DIVEE	Chort tonn ordi	bw/day	population	Cyclonic
	DNEL	Long term Oral	2 mg/kg	General	Systemic
	5.122	Long torm oran	bw/day	population	- Cyclonnic
	DNEL	Short term Dermal	6 mg/kg	General	Systemic
	DIVE	Chort tonn Bonnar	bw/day	population	Cyclonno
	DNEL	Short term Dermal	11 mg/kg	Workers	Systemic
	DIVLE	Onort torri Borriar	bw/day	WOIKOIO	Cysternio
	DNEL	Long term	35.7 mg/m ³	General	Local
	DIVLL	Inhalation	33.7 mg/m	population	Local
	DNEL	Short term	300 mg/m ³	General	Local
	DIVLL	Inhalation	300 mg/m	population	Lucai
	DNEL	Short term	300 mg/m ³	General	Systemia
	DINEL		300 mg/m		Systemic
	DAIE	Inhalation	000	population	1 1
	DNEL	Long term	300 mg/m ³	Workers	Local
		Inhalation			
	DNEL	Short term	600 mg/m ³	Workers	Local
		Inhalation			
	DNEL	Short term	600 mg/m ³	Workers	Systemic
		Inhalation			
1-Ethoxy-2-propanol	DNEL	Long term Oral	14 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term Dermal	44.3 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term Dermal	74 mg/kg	Workers	Systemic
			bw/day		1
	DNEL	Long term	127 mg/m³	General	Systemic
		Inhalation		population	
	DNEL	Short term	300 mg/m ³	General	Systemic
	DIVE	Inhalation	ooo mg/m	population	Cyclonno
	DNEL	Short term	500 mg/m ³	Workers	Systemic
	DIVLL	Inhalation	300 mg/m	WOIKCIS	Cysternic
	DNEL	Long term	106 mg/m³	Workers	Systemic
	DIVLL	Inhalation	100 mg/m	WOIKEIS	Systemic
Ethylbonzono	DNEL		1.6 ma/ka	General	Systemia
Ethylbenzene	DINEL	Long term Oral	1.6 mg/kg		Systemic
	DNE	l ong torm	bw/day	population	Cyatamia
	DNEL	Long term	15 mg/m³	General	Systemic
	ראובי	Inhalation	77 1 3	population	C. rata : :-
	DNEL	Long term	77 mg/m³	Workers	Systemic
	D	Inhalation	400 "	387 1	
	DNEL	Long term Dermal	180 mg/kg	Workers	Systemic
			bw/day		l
	DNEL	Short term	293 mg/m ³	Workers	Local
		Inhalation			
	DMEL	Long term	442 mg/m ³	Workers	Local
		Inhalation			
	DMEL	Short term	884 mg/m ³	Workers	Systemic
		Inhalation			-
propylidynetrimethanol	DNEL	Short term Oral	50 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Short term Dermal	83.3 mg/	General	Systemic
			kg bw/day	population	*
	DNEL	Short term Dermal	138.8 mg/	Workers	Systemic
			kg bw/day	: =::: =	,
	DNEL	Short term	925 mg/m ³	General	Systemic
		Inhalation	320 mg/m	population	2,000.1110
	DNEL	Short term	3037.3 mg/	Workers	Systemic
	DINEL	Inhalation	m ³	VVOINGIS	Cysternic
	ראובי			Conoral	Systemia
	DNEL	Long term Oral	0.34 mg/	General	Systemic
	D	1	kg bw/day	population	0
	DNEL	Long term Dermal	0.34 mg/	General	Systemic
			kg bw/day	population	
1	I	1	l .		I

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SECTION 8: Exposure controls/personal protection DNEL 0.58 mg/m³ Long term General Systemic Inhalation population **DNEL** Long term Dermal 0.94 ma/ Workers Systemic kg bw/day **DNEL** Long term 3.3 mg/m³ Workers Systemic Inhalation

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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

Wash hands before breaks and immediately after handling the product.

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

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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:

Filter type (spray application): A P

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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

: Not available. **Odour threshold** Melting point/freezing point Not available.

Initial boiling point and

Ingredient name

1-Ethoxy-2-propanol

boiling range

n-Butyl acetate

°F °C **Method** 126 258.8 **OECD 103**

IP 123-93

266.9 to 274.1

Not available. **Flammability** : Lower: 0.8% Lower and upper explosion Upper: 12% limit

Flash point : Closed cup: 23°C (73.4°F)

Auto-ignition temperature

Ingredient name	°C	°F	Method
1-Ethoxy-2-propanol	255	491	
n-Butyl acetate	415	779	EU A.15

130.5 to 134.5

: Not available. **Decomposition temperature** pН : Not available.

Viscosity Kinematic (40°C): >20.5 mm²/s

Solubility(ies)

Not available.

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

water

Vapour pressure

	Va	Vapour Pressure at 20°C		V	apour pres	ssure at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
n-Butyl acetate	11.25	1.5	DIN EN 13016-2			
Ethylbenzene	9.3	1.2				

Relative density : Not available. **Density** : 1.6 g/cm³ Vapour density : Not available. Not available. **Explosive properties Oxidising properties** Not available.

Particle characteristics

Median particle size : Not applicable.

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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

: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

: Reactive or incompatible with the following materials:

oxidising materials

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
Xylene	LC50 Inhalation Vapour	Rat	21.7 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
n-Butyl acetate	LC50 Inhalation Vapour	Rat	0.74 mg/l	4 hours
	LD50 Dermal	Rabbit	14112 mg/kg	-
	LD50 Oral	Rat	10760 mg/kg	-
1-Ethoxy-2-propanol	LD50 Dermal	Rabbit	8100 mg/kg	-
	LD50 Oral	Rat	4400 mg/kg	-
Ethylbenzene	LC50 Inhalation Dusts and	Rat	29000 mg/l	4 hours
	mists			
	LD50 Dermal	Rabbit	15400 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
propylidynetrimethanol	LD50 Oral	Rat	14000 mg/kg	-

Conclusion/Summary

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

Acute toxicity estimates

Route	ATE value
	10912.28 mg/kg 89.08 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300	-
				ug I	
Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
				mg	
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
n-Butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
-	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
1-Ethoxy-2-propanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
				mg	
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15	-
				mg	

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SECTION 11: Toxicological information

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

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Xylene	Category 3	-	Respiratory tract irritation
n-Butyl acetate 1-Ethoxy-2-propanol	Category 3 Category 3	- -	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Xylene	Category 2	oral, inhalation oral, inhalation	-
Ethylbenzene	Category 2		hearing organs

Aspiration hazard

Product/ingredient name	Result	
Xylene Ethylbenzene	ASPIRATION HAZARD - Category 1 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 : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u> <u>Short term exposure</u>

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Potential immediate

effects

: Not available.

: Not available.

Long term exposure

Potential immediate

Potential delayed effects

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General: May cause damage to organs through prolonged or repeated exposure. 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 : No known significant effects or critical hazards.

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
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 μg/l Marine water	Fish - Fundulus heteroclitus	96 hours
n-Butyl acetate	Acute LC50 32 mg/l Marine water Acute LC50 18000 µg/l Fresh water	Crustaceans - Artemia salina Fish - Pimephales promelas	48 hours 96 hours
propylidynetrimethanol	Acute EC50 13000000 μg/l Fresh water Acute LC50 14400000 μg/l Marine water		48 hours 96 hours

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

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Xylene	3.12	8.1 to 25.9	low
n-Butyl acetate	2.3	-	low
1-Ethoxy-2-propanol	<1	-	low
Ethylbenzene	3.6	-	low
propylidynetrimethanol	-0.47	<1	low

12.4 Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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SECTION 12: Ecological information

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.

Hazardous waste

European waste catalogue (EWC)

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

: 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. 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	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADR/RID : Tunnel code (D/E)

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SECTION 14: Transport information

user

14.6 Special precautions for : 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

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

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

P₅c

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.

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SECTION 15: Regulatory information

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
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

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SECTION 16: Other information

Acute Tox. 2 **ACUTE TOXICITY - Category 2** Acute Tox. 3 **ACUTE TOXICITY - Category 3** Acute Tox. 4 **ACUTE TOXICITY - Category 4** Asp. Tox. 1 ASPIRATION HAZARD - Category 1 Carc. 1B CARCINOGENICITY - Category 1B Carc. 2 CARCINOGENICITY - Category 2 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3 Muta. 2 GERM CELL MUTAGENICITY - Category 2 Repr. 2 REPRODUCTIVE TOXICITY - Category 2 Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1 SKIN SENSITISATION - Category 1 STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 STOT SE 3

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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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