SAFETY DATA SHEET

TEKNOPRIMER 2949-21 - RAL 9010

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

1.1 Product identifier

Product name : TEKNOPRIMER 2949-21 - RAL 9010

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

National contact

Teknos (UK) Limited, 7 Longlands Rd, Bicester, Oxfordshire OX26 5AH, United Kingdom. Tel. +44 (0) 1869 208005.

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 UK CLP/GHS

Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Contains 3-iodo-2-propynyl-butyl carbamate, 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one, 2-Octyl-2H-isothiazol-3-one and 2-Methyl-1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. Contains biocidal products for dry film and in-can preservation: IPBC and BIT and DTBMA and Bronopol and MIT and OIT and MBIT. Risk of skin sensitisation.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

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	Type
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≥10 - ≤25	Carc. 2, H351 (inhalation)	[1] [*]
2-(2-butoxyethoxy)ethanol	REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8	≤3	Eye Irrit. 2, H319	[1] [2]
1-Methoxy 2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	<1	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	[1] [2]
3-iodo-2-propynyl-butyl carbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
propylidynetrimethanol	REACH #: 01-2119486799-10 EC: 201-074-9 CAS: 77-99-6	≤0.3	Repr. 2, H361d	[1]
Ammonia	REACH #: 01-2119488876-14 EC: 215-647-6 CAS: 1336-21-6 Index: 007-001-01-2	<0.1	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1)	[1] [2]
Butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤0.1	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]

SECTION 3: Composition/information on ingredients

Hydrogen chloride	EC: 231-595-7 CAS: 7647-01-0 Index: 017-002-01-X	≤0.1	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	[1] [2]
Styrene	REACH #: 01-2119457861-32 EC: 202-851-5 CAS: 100-42-5	≤0.1	Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Propylene glycol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≤0.1	Not classified.	[2]
Phosphoric acid, solution	EC: 231-633-2 CAS: 7664-38-2	≤0.1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 **See Section 16 for the full text of the H statements declared above.**	[1] [2]

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
[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. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

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 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 harmful 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
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.

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. 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.

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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. 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.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

2-(2-butoxyethoxy)ethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 10 ppm 8 hours. STEL: 15 ppm 15 minutes. TWA: 67.5 mg/m³ 8 hours. STEL: 101.2 mg/m³ 15 minutes.
1-Methoxy 2-propanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
Ammonia	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [ammonia]** STEL: 25 mg/m³ 15 minutes. Form: anhydrous STEL: 35 ppm 15 minutes. Form: anhydrous TWA: 25 ppm 8 hours. Form: anhydrous TWA: 18 mg/m³ 8 hours. Form: anhydrous
Butan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 154 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.
2-Butoxyethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m³ 15 minutes. TWA: 123 mg/m³ 8 hours.
Hydrogen chloride	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 8 mg/m³ 15 minutes. Form: (gas and aerosol mists) STEL: 5 ppm 15 minutes. Form: (gas and aerosol mists) TWA: 2 mg/m³ 8 hours. Form: (gas and aerosol mists)

SECTION 8: Exposure controls/personal protection

	TWA: 1 ppm 8 hours. Form: (gas and aerosol mists)
Styrene	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 250 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 430 mg/m³ 8 hours. STEL: 1080 mg/m³ 15 minutes.
Propylene glycol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 10 mg/m³ 8 hours. Form: Particulate TWA: 474 mg/m³ 8 hours. Form: total vapour and particulates TWA: 150 ppm 8 hours. Form: total vapour and particulates
Phosphoric acid, solution	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 2 mg/m³ 15 minutes. TWA: 1 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 appropriate monitoring standards. 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/m³	Workers	Local
	DNEL	Long term Oral	700 mg/kg bw/day	General population	Systemic
2-(2-butoxyethoxy)ethanol	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	40.5 mg/m³	General population	Local
	DNEL	Long term Inhalation	40.5 mg/m³	General population	Systemic
	DNEL	Long term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	60.7 mg/m³	General population	Local
	DNEL	Long term Inhalation	67.5 mg/m³	Workers	Local
	DNEL	Long term Inhalation	67.5 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	101.2 mg/m³	Workers	Local
1-Methoxy 2-propanol	DNEL	Long term Oral	33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	43.9 mg/m³	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	369 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Local
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Systemic
3-iodo-2-propynyl-butyl carbamate	DNEL	Long term Inhalation	0.023 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	0.07 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	1.16 mg/m³	Workers	Local
	DNEL	Long term	1.16 mg/m³	Workers	Local

SECTION 8: Exposure controls/personal protection

		Inhalation			
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
propylidynetrimethanol	DNEL	Short term Oral	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	83.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	138.8 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	925 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	3037.3 mg/m³	Workers	Systemic
	DNEL	Long term Oral	0.34 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.34 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.58 mg/m³	General population	Systemic
	DNEL	Long term Dermal	0.94 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.3 mg/m³	Workers	Systemic
Butan-1-ol	DNEL	Long term Inhalation	55 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
	DNEL	Long term Oral	1.5625 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	55.357 mg/m³	General population	Systemic
2-Butoxyethanol	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	59 mg/m³	General population	Systemic
	DNEL	Long term Dermal	75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	89 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	98 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	147 mg/m³	General population	Local
	DNEL	Short term Inhalation	246 mg/m³	Workers	Local
	DNEL	Short term Inhalation	426 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	1091 mg/m³	Workers	Systemic
Hydrogen chloride	DNEL	Long term Inhalation	8 mg/m³	Workers	Local
	DNEL	Short term Inhalation	15 mg/m³	Workers	Local
	DNEL	Long term Inhalation	8 mg/m³	General population	Local
	DNEL	Short term Inhalation	15 mg/m³	General population	Local
Styrene	DNEL	Long term Oral	7.7 µg/kg	General	Systemic

			bw/day	population	
	DNEL	Long term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Inhalation	1 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	10 mg/m³	General population	Local
	DNEL	Short term Inhalation	10 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	85 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	100 mg/m³	Workers	Local
	DNEL	Long term Inhalation	100 mg/m³	Workers	Local
	DNEL	Short term Inhalation	100 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	343 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	406 mg/kg bw/day	Workers	Systemic
Propylene glycol	DNEL	Long term Inhalation	10 mg/m³	General population	Local
	DNEL	Long term Inhalation	10 mg/m³	Workers	Local
	DNEL	Long term Inhalation	50 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	168 mg/m³	Workers	Systemic
Phosphoric acid, solution	DNEL	Long term Inhalation	1 mg/m³	Workers	Local
	DNEL	Short term Inhalation	2 mg/m³	Workers	Local
	DNEL	Long term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.36 mg/m³	General population	Local
	DNEL	Long term Inhalation	4.57 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	10.7 mg/m³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. 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: safety glasses with side-shields.

Skin protection

SECTION 8: Exposure controls/personal 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.

> 8 hours (breakthrough time): Nitrile gloves. thickness > 0.3 mm

Not recommended polyvinyl alcohol (PVA) 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.

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 (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 : White.

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
water	100	212	
2-(2-butoxyethoxy)ethanol	225 to 227.6	437 to 441.7	

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Lower: Not applicable.
Upper: Not applicable.

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

Auto-ignition temperature :

Ingredient name	°C	°F	Method
2-(2-butoxyethoxy)ethanol	210	410	DIN 51794

Decomposition temperature : Not available.

pH : Not available.

Viscosity : Not available.

Solubility(ies) :

Not available.

SECTION 9: Physical and chemical properties

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
water	23.8	3.2				
2-(2-butoxyethoxy)ethanol	0.02	0.0027				

Relative density : Not available.

Density : 1.3 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

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 toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
1-Methoxy 2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
3-iodo-2-propynyl-butyl carbamate	LC50 Inhalation Dusts and mists	Rat	0.67 g/m³	4 hours
	LC50 Inhalation Dusts and mists	Rat	0.763 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-
propylidynetrimethanol	LD50 Oral	Rat	14000 mg/kg	-
Ammonia	LD50 Oral	Rat	350 mg/kg	-
Butan-1-ol	LC50 Inhalation Vapour	Rat	24000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
Styrene	LC50 Inhalation Gas.	Rat	2770 ppm	4 hours
	LC50 Inhalation Vapour	Rat	11800 mg/m³	4 hours
	LD50 Oral	Rat	2650 mg/kg	-
Propylene glycol	LD50 Dermal	Rabbit	20800 mg/kg	-

SECTION 11: Toxicological information

	LD50 Oral	Rat	20 g/kg	-
Phosphoric acid, solution	LD50 Oral	Rat	1.25 g/kg	-

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

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	223.9 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug I	-
2-(2-butoxyethoxy)ethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
1-Methoxy 2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
3-iodo-2-propynyl-butyl carbamate	Eyes - Severe irritant	Rabbit	-	-	-
Ammonia	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Eyes - Severe irritant	Rabbit	-	250 ug	-
Butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 Ml	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Hydrogen chloride	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 mg	-
	Skin - Mild irritant	Human	-	24 hours 4 %	-
Styrene	Eyes - Mild irritant	Human	-	50 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
Propylene glycol	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Human	-	168 hours 500 mg	-
	Skin - Mild irritant	Woman	-	96 hours 30 %	-
	Skin - Moderate irritant	Child	-	96 hours 30 % C	-
	Skin - Moderate irritant	Human	-	72 hours 104 mg I	-

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

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
3-iodo-2-propynyl-butyl carbamate	skin	Guinea pig	Not sensitizing

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

Mutagenicity

SECTION 11: Toxicological information

Product/ingredient name	Test	Experiment	Result
3-iodo-2-propynyl-butyl carbamate	-	Experiment: In vitro Subject: Bacteria	Negative

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

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
3-iodo-2-propynyl-butyl carbamate	Negative	-	Negative	Rabbit - Female	Oral: 20 mg/kg	13 days; 7 days per week
	Positive	-	Negative	Rabbit - Female	Oral: 50 mg/kg	13 days; 7 days per week

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

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl-butyl carbamate	Negative - Oral	Rabbit - Female	50 mg/kg	-

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
1-Methoxy 2-propanol	Category 3	-	Narcotic effects
Ammonia	Category 3	-	Respiratory tract irritation
Butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Hydrogen chloride	Category 3	-	Respiratory tract irritation
Styrene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
3-iodo-2-propynyl-butyl carbamate	Category 1	-	larynx
Styrene	Category 1	-	-

Aspiration hazard

Product/ingredient name	Result
Styrene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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 : Not available.

General : No known significant effects or critical hazards.

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.

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 - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Water flea - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Mummichog - Fundulus heteroclitus	96 hours
2-(2-butoxyethoxy)ethanol	Acute LC50 1300000 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
3-iodo-2-propynyl-butyl carbamate	Acute EC50 0.022 mg/l Fresh water	Algae - Algae - Scenedemus subspicatus	72 hours
	Acute EC50 0.16 mg/l Fresh water	Daphnia - Daphnia - Daphnia magna	48 hours
	Acute LC50 0.067 mg/l Fresh water	Fish - Trout - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.049 mg/l Fresh water	Fish - Trout - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.05 mg/l Fresh water	Daphnia - Daphnia - Daphnia Magna	21 days
propylidynetrimethanol	Acute EC50 13000000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 14400000 µg/l Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
Ammonia	Acute LC50 37 ppm Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
Butan-1-ol	Acute EC50 1983000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 1730000 µg/l Fresh water	Fish - Fathead minnow -	96 hours

SECTION 12: Ecological information

		Pimephales promelas	
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Inland silverside - Menidia beryllina	96 hours
Hydrogen chloride	Acute LC50 240000 µg/l Marine water	Crustaceans - Green crab - Carcinus maenas - Adult	48 hours
	Acute LC50 282 ppm Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
Styrene	Acute EC50 1400 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 720 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4700 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 52 mg/l Marine water	Crustaceans - Brine shrimp - Artemia salina	48 hours
	Acute LC50 4020 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Chronic NOEC 63 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
Propylene glycol	Acute EC50 19300 mg/l Fresh water	Algae - Algae	96 hours
	Acute EC50 43500 mg/l Fresh water	Daphnia - Daphnia - Daphnia magna	48 hours
	Acute LC50 18340000 µg/l Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia	48 hours
	Acute LC50 40613 mg/l Fresh water	Fish - Trout - Oncorhynchus mykiss	96 hours
Phosphoric acid, solution	Acute EC50 105 ppm Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 60 ppm Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours

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

12.2 Persistence and degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3-iodo-2-propynyl-butyl carbamate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
2-(2-butoxyethoxy)ethanol	1	-	low
3-iodo-2-propynyl-butyl carbamate	>1	-	low
propylidynetrimethanol	-0.47	<1	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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 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*

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	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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 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

UK (GB) /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.

SECTION 15: Regulatory information

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

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

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

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
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB 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

SECTION 16: Other information

Procedure used to derive the classification

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
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. 3	FLAMMABLE LIQUIDS - Category 3
Met. Corr. 1	CORROSIVE TO METALS - Category 1
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 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 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.