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

1.1 Product identifier

Product name : Megagloss HG Roller Comp B

Product code : 23740
Product description : Hardener.
Product type : Liquid.
Other means of : Not available.

identification

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

1.3 Details of the supplier of the safety data sheet

Jotun Boya Sanayi ve Ticaret A.Ş.

Balabandere Caddesi, Hilpark Suites Sitesi No: 10, İstinye 34460 Sarıyer, İstanbul

Tel. +90 212 279 7878 SDSJotun@jotun.com

Başvurulacak Kişi: Deren Ercan deren.metiner@jotun.com

Original preparation date : 19.07.2023

1.4 Emergency telephone number

National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi (www.uludag.edu.tr/uludag/zehir.html)
- a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.
- b. ACİL İLK YARDIM MERKEZİ:112

c. İTFAİYE:110

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to regulation SEA: RG.-10/12/2020-31330

Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3. H335

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

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.

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SECTION 2: Hazards identification

Hazard statements : H226 - Flammable liquid and vapour.

H317 - May cause an allergic skin reaction.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

Precautionary statements

General : P102 - Keep out of reach of children.

Prevention : P280 - Wear protective gloves.

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

sources. No smoking.

P271 - Use only outdoors or in a well-ventilated area.

P261 - Avoid breathing vapour.

Response : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

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

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

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

national and international regulations.

Hazardous ingredients: Hexamethylene diisocyanate, oligomers

p-toluenesulphonyl isocyanate hexamethylene diisocyanate

Supplemental label

elements

Storage

: Contains isocyanates. May produce an allergic reaction.

Annex 17 - Restrictions on the manufacture, placing

on the market and use of

certain dangerous

substances, mixtures and

articles

Special packaging requirements

Containers to be fitted

with child-resistant

fastenings

: Not applicable.

: Not applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB

: 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	%	SEA: RG10/12/2020-31330	Type
Hexamethylene diisocyanate, oligomers	EC: 500-060-2 CAS: 28182-81-2	≥50 - ≤75	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	[1]
2-butoxyethyl acetate	EC: 203-933-3 CAS: 112-07-2	≥10 - ≤25	Acute Tox. 4, H312 Acute Tox. 4, H332	[1] [2]
2-methoxy-1-methylethyl acetate	EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≥10 - <20	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
xylene	EC: 215-535-7	<10	Flam. Liq. 3, H226	[1] [2]

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SECTION 3: Composition/information on ingredients

				
	CAS: 1330-20-7		Acute Tox. 4, H312	
			Acute Tox. 4, H332	
			Skin Irrit. 2, H315	
			Eye Irrit. 2, H319	
			STOT SE 3, H335	
			Asp. Tox. 1, H304	
			Aquatic Chronic 3, H412	
ethylbenzene	EC: 202-849-4	≤3	Flam. Liq. 2, H225	[1] [2]
*	CAS: 100-41-4		Acute Tox. 4, H332	' ' '
	Index:		STOT RE 2, H373 (hearing organs)	
	601-023-00-4		Asp. Tox. 1, H304	
			Aquatic Chronic 3, H412	
p-toluenesulphonyl	EC: 223-810-8	<1	Skin Irrit. 2, H315	[1]
isocyanate	CAS: 4083-64-1		Eye Irrit. 2, H319	
			Resp. Sens. 1, H334	
			STOT SE 3, H335	
hexamethylene diisocyanate	EC: 212-485-8	≤0.3	Acute Tox. 2, H330	[1] [2]
	CAS: 822-06-0		Skin Irrit. 2, H315	' ' '
			Eye Irrit. 2, H319	
			Resp. Sens. 1, H334	
			Skin Sens. 1, H317	
			STOT SE 3, H335	
			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 or vPvBs 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

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 if irritation occurs.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.

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SECTION 4: First aid measures

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 if adverse health effects persist or are severe. 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

Potential acute health effects

Eye contactInhalation: No known significant effects or critical hazards.: Harmful if inhaled. May cause respiratory irritation.

Skin contact: May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

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 : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

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.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides

5.3 Advice for firefighters

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SECTION 5: Firefighting measures

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.

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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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

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SECTION 7: Handling and storage

Advice on general occupational hygiene

electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

See Technical Data Sheet / packaging for further information.

Regulation on the prevention of major industrial accidents and reduction of their effects - 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

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
2 -butoxyethyl acetate	TR ISGGM OEL (Turkey, 12/2013). Absorbed through skin. TWA: 133 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 333 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.
2-methoxy-1-methylethyl acetate	TR ISGGM OEL (Turkey, 12/2013). Absorbed through skin. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes.
xylene	TR ISGGM OEL (Turkey, 12/2013). [Xylene (pure and mixed isomers)] Absorbed through skin. TWA: 221 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 442 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes.
ethylbenzene	TR ISGGM OEL (Turkey, 12/2013). Absorbed through skin. TWA: 442 mg/m³ 8 hours. TWA: 100 ppm 8 hours. STEL: 884 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes.
hexamethylene diisocyanate	ACGIH TLV (United States, 1/2023). TWA: 0.005 ppm 8 hours. TWA: 0.03 mg/m³ 8 hours.

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SECTION 8: Exposure controls/personal protection

Biological 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
rexamethylene diisocyanate, oligomers	DNEL	Long term Inhalation	0.5 mg/m ³	Workers	Local
oligomoro	DNEL	Short term Inhalation	1 mg/m³	Workers	Local
2-butoxyethyl acetate	DNEL	Long term Inhalation	80 mg/m³	General	Systemic
	DNEL	Long term Inhalation	133 mg/m³	population Workers	Systemic
	DNEL	Short term Inhalation	200 mg/m ³	General population	Local
	DNEL	Long term Oral	8.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	72 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	120 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	169 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	333 mg/m ³	Workers	Local
2-methoxy-1-methylethyl acetate	DNEL	Long term Dermal	153.5 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	54.8 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	33 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	1.67 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	33 mg/m³	General population	Local
	DNEL	Long term Inhalation	33 mg/m³	General population	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	320 mg/kg bw/day	General population	Systemic

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SECTION 8: Exposure controls/personal protection

<u> </u>	•	craonal prote			
	DNEL	Short term Inhalation	550 mg/m ³	Workers	Local
	DNEL	Long term Dermal	796 mg/kg bw/day	Workers	Systemic
xylene	DNEL	Long term Oral	12.5 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m ³	General	Local
	DNEL	Long term	65.3 mg/m³		Systemic
	DNEL	Inhalation Long term Dermal	125 mg/kg bw/day	population General population	Systemic
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
ethylbenzene	DMEL	Long term Inhalation	442 mg/m³	Workers	Local
	DMEL	Short term Inhalation	884 mg/m³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m³	Workers	Local
p-toluenesulphonyl isocyanate	DNEL	Long term Oral	0.46 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.46 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.8 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.92 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.24 mg/m ³	Workers	Systemic
hexamethylene diisocyanate	DNEL	Long term Inhalation	0.035 mg/ m³	Workers	Local
	DNEL	Short term Inhalation	0.07 mg/m³	Workers	Local

PNECs

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
2-methoxy-1-methylethyl acetate	Fresh water	0.635 mg/l	-
	Marine	0.0635 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	3.29 mg/kg dwt	-
	Marine water sediment	0.329 mg/kg dwt	-
	Soil	0.29 mg/kg dwt	-
xylene	Fresh water	0.327 mg/l	-
	Marine	0.327 mg/l	-
	Sewage Treatment Plant	6.58 mg/l	-
	Fresh water sediment	12.46 mg/kg dwt	-
	Marine water sediment	12.46 mg/kg dwt	-
	Soil	2.31 mg/kg dwt	-
ethylbenzene	Fresh water	0.1 mg/l	-
	Marine	0.01 mg/l	-
	Sewage Treatment Plant	9.6 mg/l	-
	Fresh water sediment	13.7 mg/kg dwt	-
	Soil	2.68 mg/kg dwt	-
	Secondary Poisoning	20 mg/kg	-
hexamethylene diisocyanate	Fresh water	0.0774 mg/l	-
	Marine	0.00774 mg/l	-
	Sewage Treatment Plant	8.42 mg/l	-
	Fresh water sediment	0.01334 mg/kg dwt	-
	Marine water sediment	0.001334 mg/kg dwt	-
	Soil	0.0026 mg/kg dwt	-

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 to ISO 16321-1:2022 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 Hand protection

: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material

Always ensure that gloves are free from defects and that they are stored and used correctly.

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SECTION 8: Exposure controls/personal protection

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

₩ear suitable gloves tested to ISO 374-1:2016.

Not recommended, gloves(breakthrough time) < 1 hour: fluor rubber (> 0.35 mm) May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber (> 0.4 mm), PVC (> 0.5 mm), neoprene (> 0.35 mm)

Recommended, gloves(breakthrough time) > 8 hours: Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), nitrile rubber (> 0.75 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

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.

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 : Clear.

Odour : Characteristic.

Odour threshold : Not applicable.

Melting point/freezing point : Not applicable.

Initial boiling point and

: Lowest known value: 136.1°C (277°F) (ethylbenzene). Weighted average:

boiling range 163.4°C (326.1°F)

Flammability (solid, gas) : Not applicable.

Upper/lower flammability or : 0.8 - 9.8%

explosive limits

Flash point : Closed cup: 47°C (116.6°F)

Auto-ignition temperature : Lowest known value: 333°C (631.4°F) (2-methoxy-1-methylethyl acetate).

Decomposition temperature : Not available.pH : Not applicable.

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

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SECTION 9: Physical and chemical properties

Solubility(ies)

Media	Result
cold water	Not soluble
hot water	Not soluble

Partition coefficient: n-octanol/: Not available.

water

Vapour pressure

: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted

average: 0.15 kPa (1.13 mm Hg) (at 20°C)

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.3compared

with butyl acetate

Density

1.044 g/cm³

Vapour density

Highest known value: 5.5 (Air = 1) (2-butoxyethyl acetate). Weighted average:

4.71 (Air = 1)

Explosive properties Oxidising properties

: Not available. Not available.

Particle characteristics

Median particle size

: Not applicable.

9.2 Other information

No additional information.

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

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

hazardous reactions

: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld,

10.4 Conditions to avoid

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.

Thermal decomposition (>200°C) may liberate relatively low concentrations of isocyanates.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-butoxyethyl acetate	LD50 Dermal	Rabbit	1500 mg/kg	-
2-methoxy-1-methylethyl	LD50 Dermal	Rabbit	>5 g/kg	-
acetate				
	LD50 Oral	Rat	8532 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat - Male	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
p-toluenesulphonyl	LD50 Oral	Rat	2234 mg/kg	-
isocyanate				
hexamethylene diisocyanate	LC50 Inhalation Dusts and mists	Rat	124 mg/m³	4 hours

Conclusion/Summary Not available.

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Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Megagloss HG Roller Comp B	N/A	6145.6	N/A	44.1	2.5
hexane, 1,6-diisocyanato-, homopolymer	N/A	N/A	N/A	N/A	1.5
2-butoxyethyl acetate	N/A	1500	N/A	11	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
xylene	4300	1100	N/A	20	N/A
ethylbenzene	3500	N/A	N/A	17.8	N/A
tosyl isocyanate	2234	N/A	N/A	N/A	N/A
hexamethylene-di-isocyanate	N/A	N/A	N/A	0.5	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexamethylene diisocyanate, oligomers	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
2-butoxyethyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
p-toluenesulphonyl isocyanate	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
,	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
hexamethylene diisocyanate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-

Conclusion/Summary

: Not available.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
✓examethylene diisocyanate, oligomers	skin	Mammal - species unspecified	Sensitising
hexamethylene diisocyanate	skin	Mammal - species unspecified	Sensitising

Conclusion/Summary

: Not available.

Mutagenicity

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

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SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
Hexamethylene diisocyanate, oligomers	Category 3	-	Respiratory tract irritation
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
p-toluenesulphonyl isocyanate	Category 3	-	Respiratory tract irritation
hexamethylene diisocyanate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
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: Not available.

of exposure

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.Harmful if inhaled. May cause respiratory irritation.

Skin contact: 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 : No specific data.

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

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.

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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 : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
x ylene	Acute LC50 8500 μg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
ethylbenzene	Acute LC50 13400 μg/l Fresh water Acute EC50 7700 μg/l Marine water Acute EC50 2.93 mg/l Acute LC50 4.2 mg/l	Fish - Pimephales promelas Algae - Skeletonema costatum Daphnia Fish	96 hours 96 hours 48 hours 96 hours

Conclusion/Summary: No known significant effects or critical hazards.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene ethylbenzene	-		Readily Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
✓examethylene diisocyanate, oligomers	5.54	367.7	low
2-butoxyethyl acetate	1.51	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low
xylene	3.12	8.1 to 25.9	low
ethylbenzene hexamethylene diisocyanate	3.6 0.02	- 57.63	low 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 Other adverse effects : No known significant effects or critical hazards.

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SECTION 13: Disposal considerations

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).

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

Waste list

Yes.

Waste code	Waste code definition
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances

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	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 : Hazard identification number 30

Tunnel code (D/E)

IMDG : **Emergency schedules** F-E, <u>S-E</u>

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.

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SECTION 14: Transport information

14.7 Transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

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

Turkey Regulation No. 30105, KKDIK

Annex 14 - List of substances subject to authorization

Annex 14

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex 17 - Restrictions : Not applicable.
on the manufacture,
placing on the market
and use of certain
dangerous substances,
mixtures and articles

Ozone depleting substances

Not listed.

Regulation on the prevention of major industrial accidents and reduction of their effects

This product is controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

Danger criteria

Category

P5c

EU regulations

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

 As from August 24 2023 adequate training is required before industrial or professional use.

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

Not listed.

Persistent Organic Pollutants

Not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

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SECTION 15: Regulatory information

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

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

assessment

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and

: ATE = Acute Toxicity Estimate

acronyms

EUH statement = SEA-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H332	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [SEA/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
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
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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SECTION 16: Other information

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Version : 1.01
Contact information of certified author

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Notice to reader

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Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

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