## SAFETY DATA SHEET



## Jotafloor PU Universal Comp B

## Section 1. Chemical product and company identification

GHS product identifier : Jotafloor PU Universal Comp B

Product code : 12321

Chemical name : Polymethylenepolyphenyl isocyanate

Other means of identification

: Not available.

Product type : Liquid.
Product description : Hardener.

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

Use in coatings - Professional use

Supplier's details : Jotun Kazakhstan LLP

Al-Farabi Ave., 15, Nurly-Tau business center, building 4V, 9th floor,

premise No. 18-4V-9NP, Almaty,

Republic of Kazakhstan

Tel: +7 (727) 311 56 37 / +7 (727) 311 56 85

infokz@jotun.com SDSJotun@jotun.com

Emergency telephone number (with hours of operation) : 112 – Department for emergency situations 101 – Fire department; 103 – Ambulance

## Section 2. Hazards identification

### Classification of the substance or mixture according to GOST 32419-2013 and GOST 32423/24/25-2013

Classification of the substance or mixture

: ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

CHEMICALS THAT CAUSE SENSITIZATION - Chemical which cause respiratory

sensitization

CHEMICALS THAT CAUSE SENSITIZATION - Chemical which cause skin

sensitization

**CARCINOGENICITY - Category 2** 

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

### **GHS** label elements

Date of issue/Date of revision : 30.10.2024 Date of previous issue : No previous validation Version : 1 1/13

### Section 2. Hazards identification

### **Hazard pictograms**





Signal word : Danger.

**Hazard statements** H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation. H351 - Suspected of causing cancer.

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

### **Precautionary statements**

General : Not applicable.

**Prevention** : P201 + P202 - Obtain special instructions before use. Do not handle until all safety

precautions have been read and understood.

P280 - Wear protective gloves, protective clothing and eye or face protection.

P284 - Wear respiratory protection. P260 - Do not breathe vapour or spray. P264 - Wash hands thoroughly after handling.

: P308 + P311 - IF exposed or concerned: Call a POISON CENTER or physician. Response

> P304 + P340, P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a positive comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or

doctor.

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

P363 - Wash contaminated clothing before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P311 - If skin irritation or rash occurs: Call a POISON CENTER or physician. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P311 - If eye irritation persists: Call a POISON CENTER or physician.

**Storage** : Not applicable.

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

national and international regulations.

Other hazards which do not : None known.

result in classification

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture

**Chemical name** Polymethylenepolyphenyl isocyanate

Other means of : Not available.

identification

Ingredient name	%	Identifiers	Classification	Type
Polymethylenepolyphenyl isocyanate	≥75 - ≤90	CAS: 9016-87-9	ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A CHEMICALS THAT CAUSE SENSITIZATION - Chemical which cause respiratory sensitization CHEMICALS THAT CAUSE	[1]

Date of issue/Date of revision : 30.10.2024 Version : 1 2/13 Date of previous issue : No previous validation

## Section 3. Composition/information on ingredients

	•			
			SENSITIZATION - Chemical which cause	
			skin sensitization CARCINOGENICITY - Category 2	
			SPECIFIC TARGET ORGAN TOXICITY -	
			SINGLE EXPOSURE (Respiratory tract	
			irritation) - Category 3	
			SPECIFIC TARGET ORGAN TOXICITY -	
			REPEATED EXPOSURE - Category 2	
4,4'-methylenediphenyl	≥10 - ≤23	CAS: 101-68-8	ACUTE TOXICITY (inhalation) - Category 4	[1] [2]
diisocyanate			SKIN CORROSION/IRRITATION - Category	
,			2	
			SERIOUS EYE DAMAGE/EYE IRRITATION -	
			Category 2A	
			CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			respiratory sensitization	
			CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			skin sensitization CARCINOGENICITY - Category 2	
			SPECIFIC TARGET ORGAN TOXICITY -	
			SINGLE EXPOSURE (Respiratory tract	
			irritation) - Category 3	
			SPECIFÍC TARGET ORGAN TOXICITY -	
			REPEATED EXPOSURE - Category 2	
o-(p-isocyanatobenzyl)	<10	CAS: 5873-54-1	ACUTE TOXICITY (inhalation) - Category 4	[1]
phenyl isocyanate			SKIN CORROSION/IRRITATION - Category	
			2 SEDIOUS EVE DAMA CE/EVE IDDITATION	
			SERIOUS EYE DAMAGE/EYE IRRITATION -	
			Category 2A CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			respiratory sensitization	
			CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			skin sensitization	
			CARCINOGENICITY - Category 2	
			SPECIFIC TARGET ORGAN TOXICITY -	
			SINGLE EXPOSURE (Respiratory tract	
			irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY -	
			REPEATED EXPOSURE - Category 2	
2,2'-methylenediphenyl	≤3	CAS: 2536-05-2	ACUTE TOXICITY (inhalation) - Category 4	[1]
diisocyanate		0, 10, 2000 00 2	SKIN CORROSION/IRRITATION - Category	r.1
			2	
			SERIOUS EYE DAMAGE/EYE IRRITATION -	
			Category 2A	
			CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			respiratory sensitization CHEMICALS THAT CAUSE	
			SENSITIZATION - Chemical which cause	
			skin sensitization	
			CARCINOGENICITY - Category 2	
			SPECIFIC TARGET ORGAN TOXICITY -	
			SINGLE EXPOSURE (Respiratory tract	
			irritation) - Category 3	
			SPECIFIC TARGET ORGAN TOXICITY -	
			REPEATED EXPOSURE - Category 2	<u> </u>
There are no additional	lingradianta proce	at which within th	a current knowledge of the supplier and in t	ha

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 and hence require reporting in this section.

Date of issue/Date of revision : 30.10.2024 Date of previous issue : No previous validation Version : 1 3/13

## Section 3. Composition/information on ingredients

### **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

### **Description of necessary first aid measures**

**Eve contact** 

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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. In the event of any complaints or symptoms, avoid further exposure.

Skin contact

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

Inhalation : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma

symptoms or breathing difficulties if inhaled.

**Skin contact**: Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

pain or irritation watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

wheezing and breathing difficulties

asthma

**Skin contact**: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Date of issue/Date of revision : 30.10.2024 Date of previous issue : No previous validation Version : 1 4/13

### Section 4. First aid measures

### Indication of immediate medical attention and special treatment needed, if necessary

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
Protection of first-aiders

- : No specific treatment.
- : 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.

### See toxicological information (Section 11)

## Section 5. Firefighting measures

### **Extinguishing media**

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

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

### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**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).

### 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.

Date of issue/Date of revision : 30.10.2024 Date of previous issue : No previous validation Version : 1 5/13

### Section 6. Accidental release measures

### 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.

## Section 7. Handling and storage

### Precautions for safe handling

#### **Protective measures**

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. 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.

## including any incompatibilities

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

See Technical Data Sheet / packaging for further information.

## Section 8. Exposure controls/personal protection

### **Control parameters**

### Occupational exposure limits

Ingredient name Exposure limits	
4,4'-methylenediphenyl diisocyanate	Order of the Minister of Health of the Republic of Kazakhstan on approval of hygienic standards for atmospheric air in urban and rural settlements, on the territories of industrial organizations dated August 2, 2022 No.DSM -70 (KZ, 8/2022). Sensitization potential.  STEL: 0.5 mg/m³ 15 minutes. Form: mixture of gas or vapor and aerosol

### **Biological exposure indices**

No exposure indices known.

### 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.

Date of issue/Date of revision : 30.10.2024 Version:1 6/13 Date of previous issue : No previous validation

## 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.

### **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: chemical splash goggles.

## 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.

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.

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 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.

### 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

: Self-contained respiratory equipment must be worn by spray operator, even when good ventilation is provided. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask.

# Section 9. Physical and chemical properties and safety characteristics

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

### **Appearance**

Physical state : Liquid.
Colour : Clear.

Date of issue/Date of revision: 30.10.2024Date of previous issue: No previous validationVersion: 17/13

Jotafloor PU Universal Comp B

# Section 9. Physical and chemical properties and safety characteristics

Odour threshold : Characteristic.

Odour threshold : Not applicable.

Melting point/freezing point : Not applicable.

Boiling point, initial boiling point, and boiling range

: Lowest known value: 199.85°C (391.7°F) (Polymethylenepolyphenyl isocyanate).

Flash point : Closed cup: 220°C (428°F)

Evaporation rate : Not available.Flammability : Not applicable.Lower and upper explosion : Not applicable.

limit/flammability limit

Vapour pressure : Highest known value: 8e-006 kPa (6e-005 mm Hg) (at 20°C) (2,2'-

methylenediphenyl diisocyanate).

**Relative vapour density** : Not available. **Density** : 1.23 g/cm³

Solubility(ies) :

Media	Result
cold water	Not soluble
hot water	Not soluble

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

**Particle characteristics** 

Median particle size : Not applicable.

## Section 10. Stability and reactivity

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

**Chemical stability**: The product is stable.

Possibility of hazardous : Under norma

reactions

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

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition : Unde

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

## **Section 11. Toxicological information**

Information on toxicological effects

**Acute toxicity** 

Not available.

**Irritation/Corrosion** 

Date of issue/Date of revision: 30.10.2024Date of previous issue: No previous validationVersion: 1

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Polymethylenepolyphenyl isocyanate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
4,4'-methylenediphenyl diisocyanate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
o-(p-isocyanatobenzyl) phenyl isocyanate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
2,2'-methylenediphenyl diisocyanate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	_	-

### **Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
Polymethylenepolyphenyl isocyanate	skin	Mammal - species unspecified	Sensitising
4,4'-methylenediphenyl diisocyanate	skin	Mammal - species unspecified	Sensitising
o-(p-isocyanatobenzyl) phenyl isocyanate	skin	Mammal - species unspecified	Sensitising
2,2'-methylenediphenyl diisocyanate	skin	Mammal - species unspecified	Sensitising

### **Mutagenicity**

Not available.

### **Carcinogenicity**

Not available.

### **Reproductive toxicity**

Not available.

### **Teratogenicity**

Not available.

Specific target organ toxicity (single exposure)

Date of issue/Date of revision: 30.10.2024Date of previous issue: No previous validationVersion: 19/13

## Section 11. Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
Polymethylenepolyphenyl isocyanate	Category 3	-	Respiratory tract irritation
4,4'-methylenediphenyl diisocyanate	Category 3	-	Respiratory tract irritation
o-(p-isocyanatobenzyl)phenyl isocyanate	Category 3	-	Respiratory tract irritation
2,2'-methylenediphenyl diisocyanate	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name		Route of exposure	Target organs
Polymethylenepolyphenyl isocyanate	Category 2	inhalation	-
4,4'-methylenediphenyl diisocyanate	Category 2	-	-
o-(p-isocyanatobenzyl)phenyl isocyanate	Category 2	-	-
2,2'-methylenediphenyl diisocyanate	Category 2	-	-

### **Aspiration hazard**

Not available.

Information on likely routes : Not available.

of exposure

Potential acute health effects

**Eye contact** : Causes serious eye irritation.

: Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma Inhalation

symptoms or breathing difficulties if inhaled.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

: No known significant effects or critical hazards. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:

> pain or irritation watering

redness

Inhalation Adverse symptoms may include the following:

respiratory tract irritation

coughing

wheezing and breathing difficulties

asthma

**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** 

: Not available. **Potential immediate** 

effects

Potential delayed effects : Not available.

**Long term exposure** 

**Potential immediate** : Not available.

effects

Potential delayed effects : Not available.

Date of issue/Date of revision 10/13 : 30.10.2024 Version :1 Date of previous issue : No previous validation

## Section 11. Toxicological information

### Potential chronic health effects

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 : Suspected of causing cancer. Risk of cancer depends on duration and level of

exposure.

**Mutagenicity**: No known significant effects or critical hazards.

**Reproductive toxicity**: No known significant effects or critical hazards.

### **Numerical measures of toxicity**

### **Acute toxicity estimates**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)		Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Polymethylenepolyphenyl isocyanate	N/A	N/A	N/A	440.0	1.5
Polymethylenepolyphenyl isocyanate	N/A	N/A	N/A	N/A	1.5
4,4'-methylenediphenyl diisocyanate	N/A	N/A	N/A	N/A	1.5
o-(p-isocyanatobenzyl)phenyl isocyanate	N/A	N/A	N/A	N/A	1.5
2,2'-methylenediphenyl diisocyanate	N/A	N/A	N/A	11	N/A

## **Section 12. Ecological information**

### **Toxicity**

Not available.

### Persistence and degradability

Not available.

### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
4,4'-methylenediphenyl diisocyanate	4.51	200	low
o-(p-isocyanatobenzyl) phenyl isocyanate	4.51	200	low
2,2'-methylenediphenyl diisocyanate	5.22	200	low

### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Date of issue/Date of revision: 30.10.2024Date of previous issue: No previous validationVersion: 1

## Section 13. Disposal considerations

### **Disposal methods**

: 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

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.

Transport in bulk according : Not available. to IMO instruments

## Section 15. Regulatory information

### 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.

Date of issue/Date of revision : 30.10.2024 Version:1 12/13 Date of previous issue : No previous validation

### **Section 16. Other information**

#### **History**

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**Key to abbreviations** : ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GOST = Gosudarstvennyy standart

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

SGG = Segregation Group UN = United Nations

#### Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
CHEMICALS THAT CAUSE SENSITIZATION - Chemical which cause respiratory sensitization	Calculation method
CHEMICALS THAT CAUSE SENSITIZATION - Chemical which cause skin sensitization	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method

References : Not available.

▼ Indicates information that has changed from previously issued version.

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