

# SAFETY DATA SHEET

weiss

COSMO® PU-100.110

(COSMOPUR K1)

## Section 1. Identification

**GHS product identifier** : COSMO® PU-100.110

(COSMOPUR K1)

**Product code** : Not available.

**Other means of identification** : Not available.

**Product type** : Liquid.

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

**Product use** : Adhesive.

**Area of application** : Professional applications.

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## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : H315 SKIN IRRITATION - Category 2  
H319 EYE IRRITATION - Category 2A  
H334 RESPIRATORY SENSITIZATION - Category 1  
H317 SKIN SENSITIZATION - Category 1  
H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Date of issue/Date of revision** : 10/16/2025 **Date of previous issue** : No previous validation **Version** : 1 1/17

## Section 2. Hazards identification

<b>Hazard statements</b>	: H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 - May cause respiratory irritation.
<b>Precautionary statements</b>	
<b>Prevention</b>	: P280 - Wear protective gloves: 4 - 8 hours (breakthrough time): Recommended: Nitrile gloves. ( $\geq 0.35$ mm). Protective hand cream.. Wear eye or face protection. P284 - Wear respiratory protection: Recommended: Filter A2 P2. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P264 - Wash thoroughly after handling. P272 - Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. 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 + P313 - If eye irritation persists: Get medical advice or attention.
<b>Storage</b>	: P405 - Store locked up. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.
<b>Hazards identified when used</b>	: No known significant effects or critical hazards.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	Synonyms	%	Identifiers
4,4'-methylenediphenyl diisocyanate	-	$\geq 7 - \leq 13$	CAS: 101-68-8
o-(p-isocyanatobenzyl)phenyl isocyanate	-	$\geq 3 - \leq 7$	CAS: 5873-54-1
propylene carbonate	-	$\geq 1 - \leq 5$	CAS: 108-32-7
4,4'-Methylenediphenyl diisocyanate, oligomers	-	$\geq 1 - \leq 5$	CAS: 25686-28-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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 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.

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

#### Potential acute health effects

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

## 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** : No specific treatment.
- 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.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.

**Unsuitable extinguishing media** : Do not use water jet.

**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  
 metal oxide/oxides  
 Isocyanate  
 Hydrogen cyanide (HCN).  
 Toxic gases

**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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized 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".

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled 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 materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert 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 release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

## 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 sensitization problems or asthma, allergies or chronic or recurrent respiratory disease 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 vapor or mist. 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.

**Conditions for safe storage, including any incompatibilities** : Store away from direct sunlight. Store between the following temperatures: 15 to 25°C (59 to 77°F). 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
4,4'-methylenediphenyl diisocyanate      o-(p-isocyanatobenzyl)phenyl isocyanate propylene carbonate 4,4'-Methylenediphenyl diisocyanate, oligomers	<b>ACGIH TLV (United States, 1/2024)</b> TWA 8 hours: 0.005 ppm. <b>NIOSH REL (United States, 10/2020)</b> TWA 10 hours: 0.05 mg/m <sup>3</sup> . TWA 10 hours: 0.005 ppm. CEIL 10 minutes: 0.2 mg/m <sup>3</sup> . CEIL 10 minutes: 0.02 ppm. <b>OSHA PEL (United States, 5/2018)</b> CEIL: 0.02 ppm. CEIL: 0.2 mg/m <sup>3</sup> . <b>CAL OSHA PEL (United States, 1/2025)</b> TWA 8 hours: 0.051 mg/m <sup>3</sup> . TWA 8 hours: 0.005 ppm.  None. None. None.

### Biological exposure indices

None known.

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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 with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 4 - 8 hours (breakthrough time): Recommended: Nitrile gloves. (≥ 0.35 mm). Protective hand cream.

## Section 8. Exposure controls/personal protection

- 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. Recommended: Long-sleeved protective clothing. Safety shoes.
- 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. Recommended: Filter A2 P2

## Section 9. Physical and chemical properties

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

### Appearance

- Physical state** : Liquid. [Paste.]
- Color** : According to specification
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: 168°C (334.4°F) [Pensky-Martens]
- Evaporation rate** : Not available.
- Flammability** : Combustible
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
4,4'-methylenediphenyl diisocyanate	0.0000052	0.00000069				

- Relative vapor density** : Not available.
- Relative density** : Not available.
- Density** : ~1.52 g/cm<sup>3</sup> [20°C (68°F)]

Media	Result
cold water	Not soluble
hot water	Not soluble

- Miscible with water** : No.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : 375°C (707°F)
- Decomposition temperature** : Not available.
- SADT** : Not available.

## Section 9. Physical and chemical properties

**Viscosity** : Dynamic (room temperature): 67000 to 93000 mPa·s (67000 to 93000 cP)  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.

### Particle characteristics

**Median particle size** : Not applicable.

### Other information

**Physical/chemical properties comments** : No additional information.

## Section 10. Stability and reactivity

**Reactivity** : Product reacts with water.

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

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.  
Keep away from the following materials to prevent strong exothermic reactions: Alcohol., Amines, Water, alkalis, Acid.  
Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid** : Protect from humidity. Keep away from heat and direct sunlight. (T >50°C).  
Polymerisation due to high heat is possible. ( T > 260°C)

**Incompatible materials** : Reactive or incompatible with the following materials: acids and alkalis.  
Amines, Alcohol., Water.

**Hazardous decomposition 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

Product/ingredient name	Result	
4,4'-methylenediphenyl diisocyanate	<b>Rat - Oral - LD50</b> 9200 mg/kg	<u>Toxic effects</u> : Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Changes in Chemistry or Temperature - Body temperature decrease OECD [Acute Dermal Toxicity]
o-(p-isocyanatobenzyl)phenyl isocyanate	<b>Rabbit - Male, Female - Dermal - LD50</b> >9400 mg/kg <b>Rabbit - Male, Female - Dermal - LD50</b> >9400 mg/kg	OECD [Acute Dermal Toxicity]
propylene carbonate	<b>Rat - Oral - LD50</b> >5000 mg/kg <b>Rabbit - Dermal - LD50</b> >5000 mg/kg	

## Section 11. Toxicological information

4,4'-Methylenediphenyl diisocyanate, oligomers

**Rat - Female - Oral - LD50**  
>5000 mg/kg

OECD [Acute Oral Toxicity: Up-and-Down Procedure]

**Conclusion/Summary [Product]** : Not available.

### Skin corrosion/irritation

#### **Product/ingredient name**

#### **Result**

4,4'-methylenediphenyl diisocyanate

**Rabbit - Skin - Irritant**

OECD [Acute Dermal Irritation/Corrosion]

o-(p-isocyanatobenzyl)phenyl isocyanate

**Rabbit - Skin - Irritant**

OECD [Acute Dermal Irritation/Corrosion]

4,4'-Methylenediphenyl diisocyanate, oligomers

**Rabbit - Skin - Irritant**

OECD [Acute Dermal Irritation/Corrosion]

**Conclusion/Summary [Product]** : Not available.

### Serious eye damage/eye irritation

#### **Product/ingredient name**

#### **Result**

4,4'-methylenediphenyl diisocyanate

**Rabbit - Eyes - Mild irritant**

o-(p-isocyanatobenzyl)phenyl isocyanate

**Human - Eyes - Mild irritant**

Fully reversible in 7 days or less

propylene carbonate

**Rabbit - Eyes - Moderate irritant**

Amount/concentration applied: 60 mg

OECD [Acute Eye Irritation/Corrosion]

4,4'-Methylenediphenyl diisocyanate, oligomers

**Rabbit - Eyes - Mild irritant**

OECD [Acute Eye Irritation/Corrosion]

**Conclusion/Summary [Product]** : Not available.

### Respiratory corrosion/irritation

**Conclusion/Summary [Product]** : Not available.

### Respiratory or skin sensitization

#### **Product/ingredient name**

#### **Result**

4,4'-methylenediphenyl diisocyanate

**Guinea pig - skin**

OECD [Skin Sensitization]

Result: Sensitizing

**Guinea pig - Respiratory**

Result: Sensitizing

o-(p-isocyanatobenzyl)phenyl isocyanate

**Mouse - skin**

Result: Sensitizing

**Guinea pig - Respiratory**

Result: Sensitizing

4,4'-Methylenediphenyl diisocyanate, oligomers

**Guinea pig - skin**

OECD [Skin Sensitization]

Result: Sensitizing

**Guinea pig - Respiratory**

Result: Sensitizing

## Section 11. Toxicological information

### Skin

**Conclusion/Summary [Product]** : Not available.

### Respiratory

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

#### Product/ingredient name

propylene carbonate

#### Result

**In vitro - Bacteria**

Result: Negative

**In vitro - Mammalian-Animal**

Result: Negative

**In vitro - Mammalian-Animal**

Result: Negative

OECD [Bacterial Reverse Mutation Test]

OECD [Mammalian Erythrocyte Micronucleus Test]

OECD [Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells in vitro]

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

**Conclusion/Summary [Product]** : Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
4,4'-methylenediphenyl diisocyanate	-	3	-

### Reproductive toxicity

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

#### Product/ingredient name

4,4'-methylenediphenyl diisocyanate

o-(p-isocyanatobenzyl)phenyl isocyanate

4,4'-Methylenediphenyl diisocyanate, oligomers

#### Result

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(Respiratory tract irritation) - Category 3

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

## Section 11. Toxicological information

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

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

### 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 and also 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

**Conclusion/Summary [Product]** : Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

*Date of issue/Date of revision* : 10/16/2025 *Date of previous issue* : No previous validation *Version* : 1 11/17

## Section 11. Toxicological information

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
COSMO® PU-100.110 (COSMOPUR K1)	75785.7	63374.6	N/A	N/A	6.1
4,4'-methylenediphenyl diisocyanate	9200	N/A	N/A	N/A	1.5
o-(p-isocyanatobenzyl)phenyl isocyanate	N/A	N/A	N/A	N/A	1.5
4,4'-Methylenediphenyl diisocyanate, oligomers	N/A	N/A	N/A	N/A	1.5

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	
4,4'-methylenediphenyl diisocyanate	<b>Acute - LC50</b> Fish >1000 mg/l [96 hours]	OECD [Fish, Acute Toxicity Test]
	<b>Chronic - NOEC - Fresh water</b> Daphnia ≥10 mg/l [21 days]	OECD [Daphnia Magna Reproduction Test]
o-(p-isocyanatobenzyl)phenyl isocyanate	<b>Acute - LC50 - Fresh water</b> Fish >1000 mg/l [96 hours]	OECD [Fish, Acute Toxicity Test]
	<b>Chronic - NOEC - Fresh water</b> Daphnia ≥10 mg/l [21 days]	OECD [Daphnia Magna Reproduction Test]
propylene carbonate	<b>LC50</b> Fish - <i>Cyprinus caprio</i> >1000 mg/l [96 hours]	
	<b>Acute - EC50</b> Daphnia - <i>Daphnia magna</i> >1000 mg/l [48 hours]	Daphnia sp. Acute Immobilization Test and Reproduction Test
	<b>EC50</b> Algae - <i>desmodesmus subspicatus</i> >900 mg/l [72 hours]	Alga, Growth Inhibition Test
4,4'-Methylenediphenyl diisocyanate, oligomers	<b>Acute - LC50</b> Fish >1000 mg/l [96 hours]	OECD [Fish, Acute Toxicity Test]
	<b>Chronic - NOEC - Fresh water</b> Daphnia ≥10 mg/l [21 days]	OECD [Daphnia Magna Reproduction Test]
	<b>Acute - EC50 - Fresh water</b> Algae >1640 mg/l [72 hours]	OECD [Alga, Growth Inhibition Test]

**Conclusion/Summary [Product]** : Not available.

### Persistence and degradability

Product/ingredient name	Result

## Section 12. Ecological information

4,4'-methylenediphenyl diisocyanate	<b>Aerobic</b> 0% [28 days] - Not readily 90 to 100% [14 days]	OECD [Ready Biodegradability - Manometric Respirometry Test] Ready Biodegradability - DOC Die- Away Test
propylene carbonate	94% [28 days]	Ready Biodegradability - Modified OECD Screening Test

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
4,4'-methylenediphenyl diisocyanate	-	-	Not readily
o-(p-isocyanatobenzyl)phenyl isocyanate	-	-	Not readily
propylene carbonate	-	-	Readily
4,4'-Methylenediphenyl diisocyanate, oligomers	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
4,4'-methylenediphenyl diisocyanate	4.51	200 [OECD 305 E]	Low
o-(p-isocyanatobenzyl)phenyl isocyanate	4.51	200 [OECD 305 E]	Low
propylene carbonate	-0.41	-	Low
4,4'-Methylenediphenyl diisocyanate, oligomers	8.56	200 [OECD 305 E]	Low

### Mobility in soil

**Soil/Water partition coefficient** : Not available.

### Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

**DOT Classification** : **Reportable quantity** 38630.9 lbs / 17538.4 kg [3048.1 gal / 11538.4 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

**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 to IMO instruments** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** 4,4'-methylenediphenyl diisocyanate; o-(p-isocyanatobenzyl)phenyl isocyanate; Siloxanes and Silicones, di-Me, reaction products with silica; acetaldehyde  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**TSCA 8(c) calls for record of SAR:** 4,4'-methylenediphenyl diisocyanate; o-(p-isocyanatobenzyl)phenyl isocyanate  
**United States inventory (TSCA 8b):** Not determined.  
**Clean Water Act (CWA) 311:** acetaldehyde; propylene oxide

### TSCA 12(b) - Chemical export notification

Not applicable.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

## Section 15. Regulatory information

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
furan	≤0.1	Yes.	500	64.1	100	12.8
propylene oxide	≤0.1	Yes.	10000	1444.3	100	14.4

**SARA 304 RQ** : 416770.9 lbs / 189214 kg [32884.9 gal / 124482.9 L]

### SARA 311/312

**Classification** : SKIN IRRITATION - Category 2  
 EYE IRRITATION - Category 2A  
 RESPIRATORY SENSITIZATION - Category 1  
 SKIN SENSITIZATION - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

#### Composition/information on ingredients

Name	%	Classification
4,4'-methylenediphenyl diisocyanate	≥7 - ≤13	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
o-(p-isocyanatobenzyl)phenyl isocyanate	≥3 - ≤7	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
propylene carbonate	≥1 - ≤5	EYE IRRITATION - Category 2A
4,4'-Methylenediphenyl diisocyanate, oligomers	≥1 - ≤5	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	4,4'-methylenediphenyl diisocyanate	101-68-8	≥7 - ≤13
<b>Supplier notification</b>	4,4'-methylenediphenyl diisocyanate	101-68-8	≥7 - ≤13

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

## Section 15. Regulatory information

### State regulations

- Massachusetts** : The following components are listed: CALCIUM CARBONATE; METHYLENE BISPHENYL ISOCYANATE
- New York** : The following components are listed: Methylene diphenyl diisocyanate
- New Jersey** : The following components are listed: CALCIUM CARBONATE; METHYLENE BISPHENYL ISOCYANATE; DIISOCYANATES
- Pennsylvania** : The following components are listed: LIMESTONE; BENZENE, 1,1'-METHYLENEBIS [4-ISOCYANATO-

### California Prop. 65

- ⚠ WARNING:** This product can expose you to chemicals including Furan, acetaldehyde, Cobalt metal powder and Propylene oxide, which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
Furan	-	-
acetaldehyde	Yes.	-
Cobalt metal powder	-	-
Propylene oxide	-	-

### 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.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### National Fire Protection Association (U.S.A.)

## Section 16. Other information



### Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
RESPIRATORY SENSITIZATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method

### History

<b>Date of issue/Date of revision</b>	: 10/16/2025
<b>Date of previous issue</b>	: No previous validation
<b>Version</b>	: 1
<b>Prepared by</b>	: Chemical Check GmbH
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods IMO = International Maritime Organization 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 SGG = Segregation Group TDG = Transportation of Dangerous Goods UN = United Nations
<b>References</b>	: HCS (U.S.A.) - Hazard Communication Standard International transport regulations

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.