

# SAFETY DATA SHEET



## Urethane 85 Hardener

### Section 1. Identification

<b>GHS product identifier</b>	: Urethane 85 Hardener
<b>Product code</b>	: 108012
<b>Other means of identification</b>	: Not available.
<b>Color</b>	: White.
<b>Product type</b>	: Liquid.

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

##### Identified uses

Hardener for resins.

##### Uses advised against

Not applicable.

<b>Supplier's details</b>	: WEICON GmbH & Co. KG Königsberger Str. 255, 48157 Münster, Germany phone:+49 251 93220, email: info@weicon.de, URL: www.weicon.de
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<b>e-mail address of person responsible for this SDS</b>	: msds@weicon.de
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<b>Emergency telephone number (with hours of operation)</b>	: +1 202 464 2554 TRANSPORT (24 Hours/Day): +1 202 464 2554
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### Section 2. Hazards identification

<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
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<b>Classification of the substance or mixture</b>	: EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1
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#### GHS label elements

##### Hazard pictograms



<b>Signal word</b>	: Danger
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<b>Hazard statements</b>	: H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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#### Precautionary statements

<b>Prevention</b>	: P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing vapor.
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<b>Response</b>	: P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor. P363 - Wash contaminated clothing before reuse.
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## Section 2. Hazards identification

**Storage** : Not applicable.

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

**Hazards not otherwise classified** : None known.

**Hazards identified when used** : No known significant effects or critical hazards.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

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

Ingredient name	Synonyms	%	Identifiers
Aromatic. Polyisocyanate Prepolymer		≥90	37273-56-6
4-isocyanatosulphonyltoluene		<1	4083-64-1
hexahydro-4-methylphthalic anhydride		<1	19438-60-9
decamethylcyclopentasiloxane		≤0.1	541-02-6
octamethylcyclotetrasiloxane		<0.1	556-67-2

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 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.

## Section 4. First aid measures

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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : 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:  
wheezing and breathing difficulties  
asthma
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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** : 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:  
Hydrogen cyanide (HCN).

**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".

- 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach 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 spilled 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 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 in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in 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

<b>Ingredient name</b>	<b>Exposure limits</b>
Aromatic. Polyisocyanate Prepolymer	None.
4-isocyanatosulphonyltoluene	None.
hexahydro-4-methylphthalic anhydride	None.
decamethylcyclotetrasiloxane	<b>OARS WEEL (United States, 9/2024)</b> TWA 8 hours: 10 ppm.
octamethylcyclotetrasiloxane	<b>OARS WEEL (United States, 9/2024)</b> TWA 8 hours: 10 ppm.

#### Biological exposure indices

No exposure indices 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. Recommended : ; Viton® , Butyl rubber gloves.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : inorganic gases/vapors filter (Type B)

## Section 9. Physical and chemical properties

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

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: White.
<b>Odor</b>	: Odorless.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>Melting point/freezing point</b>	: Not available.
<b>Boiling point or initial boiling point and boiling range</b>	: Not available.
<b>Flash point</b>	: Closed cup: 190°C (374°F)
<b>Evaporation rate</b>	: Not available.
<b>Flammability</b>	: Not available.
<b>Lower and upper explosion limit/flammability limit</b>	: Not available.
<b>Vapor pressure</b>	:

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
octamethylcyclotetrasiloxane	0.99	0.13	EU A.4			
decamethylcyclopentasiloxane	0.25	0.033				
m-tolylidene diisocyanate	0.01	0.0013				
4-isocyanatosulphonyltoluene	0.00019	0.000025				
hexahydro-4-methylphthalic anhydride	0	0				
tosyl chloride	0	0				

<b>Relative vapor density</b>	: Not available.
<b>Relative density</b>	: Not available.
<b>Density</b>	: 1.1 g/cm <sup>3</sup> [20°C (68°F)]
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	:

Ingredient name	°C	°F	Method
decamethylcyclopentasiloxane	372	701.6	ASTM E 659-78
octamethylcyclotetrasiloxane	384 to 387	723.2 to 728.6	ASTM E 659
m-tolylidene diisocyanate	>595	>1103	EU A.15

<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Dynamic: 7000 mPa·s (7000 cP)
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: 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**

4-isocyanatosulphonyltoluene

##### **Result**

**Rat - Oral - LD50**

2234 mg/kg

Toxic effects: Gastrointestinal - Other changes

octamethylcyclotetrasiloxane

**Rat - Inhalation - LC50 Vapor**36 g/m<sup>3</sup> [4 hours]

Toxic effects: Behavioral - Excitement Lung, Thorax, or Respiration - Dyspnea Other - Hair

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

#### Skin corrosion/irritation

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

4-isocyanatosulphonyltoluene

##### **Result**

**Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 uL

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

#### Serious eye damage/eye irritation

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

4-isocyanatosulphonyltoluene

##### **Result**

**Rabbit - Eyes - Moderate irritant**

Amount/concentration applied: 100 uL

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

#### Respiratory corrosion/irritation

Not available.

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

#### Respiratory or skin sensitization

Not available.

## Section 11. Toxicological information

### Skin

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

### Respiratory

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

### Germ cell mutagenicity

Not available.

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

### Carcinogenicity

Not available.

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

### Reproductive toxicity

Not available.

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

### Specific target organ toxicity (single exposure)

Product/ingredient name	Result
4-isocyanatosulphonyltoluene	-

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
**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** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
**Inhalation** : Adverse symptoms may include the following:  
 wheezing and breathing difficulties  
 asthma

## Section 11. Toxicological information

**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

Not available.

**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

#### 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)
4-isocyanatosulphonyltoluene	2234	N/A	N/A	N/A	N/A
octamethylcyclotetrasiloxane	N/A	N/A	N/A	36	N/A

## Section 12. Ecological information

### Toxicity

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

octamethylcyclotetrasiloxane

#### **Result**

##### **Chronic - NOEC - Fresh water**

Daphnia - Water flea - *Daphnia magna*

Age: <24 hours

7.9 µg/l [21 days]

Effect: Mortality

##### **Chronic - NOEC**

STDMETH

Algae - Green algae - *Selenastrum capricornutum*

1 to 29 µg/l [96 hours]

Effect: Population

##### **Chronic - NOEC - Fresh water**

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss* - Embryo

Age: ≤24 hours

## Section 12. Ecological information

4.4 µg/l [33 days]  
Effect: Mortality

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

### Persistence and degradability

Not available.

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

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
hexahydro-4-methylphthalic anhydride	2.09	-	Low
decamethylcyclopentasiloxane	8.023	7060	High
octamethylcyclotetrasiloxane	6.488	13400	High

### 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

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

## Section 14. Transport information

**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 4(a) final test rules:** octamethylcyclotetrasiloxane

**TSCA 8(a) PAIR:** Siloxanes and Silicones, di-Me, reaction products with silica

**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

**TSCA 8(c) calls for record of SAR:** m-tolyldiene diisocyanate

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

Not applicable.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not 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

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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : EYE IRRITATION - Category 2A  
RESPIRATORY SENSITIZATION - Category 1  
SKIN SENSITIZATION - Category 1

#### Composition/information on ingredients

Name	%	Classification
Aromatic. Polyisocyanate Prepolymer	≥90	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
4-isocyanatosulphonyltoluene	<1	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
hexahydro-4-methylphthalic anhydride	<1	SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1
decamethylcyclopentasiloxane	≤0.1	FLAMMABLE LIQUIDS - Category 4
octamethylcyclotetrasiloxane	<0.1	FLAMMABLE LIQUIDS - Category 3 TOXIC TO REPRODUCTION - Category 2

### State regulations

## Section 15. Regulatory information

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : None of the components are listed.  
**Pennsylvania** : None of the components are listed.  
**California Prop. 65**

**⚠ WARNING:** This product can expose you to Toluene diisocyanate, which is 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
Toluene diisocyanate	Yes.	-

### 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.

### Inventory list

- Australia** : Not determined.  
**Canada** : Not determined.  
**China** : Not determined.  
**Eurasian Economic Union** : **Russian Federation inventory:** Not determined.  
**Japan** : **Japan inventory (CSCL):** Not determined.  
**Japan inventory (ISHL):** Not determined.  
**New Zealand** : Not determined.  
**Philippines** : Not determined.  
**Republic of Korea** : Not determined.  
**Taiwan** : Not determined.  
**Thailand** : Not determined.  
**Turkey** : Not determined.  
**United States** : Not determined.  
**Viet Nam** : Not determined.

## Section 16. Other information

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

Health	*	2
Flammability		1
Physical hazards		0

## Section 16. Other information

**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.)



### Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2A	Calculation method
RESPIRATORY SENSITIZATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method

### History

<b>Date of printing</b>	: 2/3/2026
<b>Date of issue/Date of revision</b>	: 1/29/2026
<b>Date of previous issue</b>	: 11/4/2025
<b>Version</b>	: 2.9

### Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: DOT = Department of Transportation
: 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

### References

: Not available.

☑ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.