

SECTION 1 Identification

1.1. Product identifier

Product form : Substance
 Trade name : UR7001 Clear B

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Isocyanates
 Restrictions on use : Product for industrial use only

1.4. Supplier's details

ResinLab, LLC
 N109 W13300 Ellsworth Drive
 Germantown, WI, 53022
 United States
 T 1-877-259-1669
msds@resinlab.com - www.resinlab.com

1.5. Emergency phone number

Emergency number : CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:dust,mist), Category 4	H332	Harmful if inhaled.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation

Precautionary statements (GHS US) : P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
 P302+P352 - If on skin: Wash with plenty of water.

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a poison center or doctor if you feel unwell.
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P363 - Take off immediately all contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

Other hazards which do not result in classification : Possible sensitizer, reacts with common materials such as water and alcohols releasing CO2.

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Name : Hexamethylene diisocyanate homopolymer
CAS-No. : 28182-81-2

Name	Product identifier	%
Hexamethylene diisocyanate homopolymer	CAS-No.: 28182-81-2	≥ 90
1,6-diisocyanatohexane	CAS-No.: 822-06-0	< 0.2

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If inhaled: Remove person to fresh air and keep comfortable for breathing. Asthmatic sensitization can occur from a single large inhalation exposure or from repeated lower inhalation exposures. Observe OELs. Symptoms may be delayed. The affected person must rest and be kept under medical observation 48 Hours. If experiencing respiratory symptoms, call a doctor.
First-aid measures after skin contact : Polyglycol based skin cleansers such as Tam D or PEG 400 or corn oil may be more effective than using soap and water. If no corn oil or polyglycol-based skin cleanser available, Rinse immediately with plenty of water for 15 minutes. If available apply a polyglycol based cleanser or corn oil and then wash with soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth out with water. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Most Important Symptoms/Effects	: Contains diisocyanate. Skin contact may aggravate existing condition, inhalation of aerosol or vapor above or at OEL may aggravate existing respiratory condition.

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

Other medical advice or treatment	: Treat symptomatically. Diisocyanate vapors or mist concentrations above the PEL or TLV can irritate the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, shortness of breath. Persons with pre-existing non specific bronchial hyperactivity can respond to concentrations below the OEL. These symptoms can be delayed to several hours after exposure and are reversible.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Water may be used if no other available and then in copious quantities. Reaction between water and hot isocyanate may be vigorous.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon oxides (CO, CO ₂). Nitrogen oxides.
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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
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For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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Environmental precautions	: Avoid release to the environment.
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6.2. Methods and materials for containment and cleaning up

For containment	: Pump free liquid into closed but not sealed container to allow for escape of CO ₂ . Absorb with liquid binding material. Wash area with large amounts of water.
Methods for cleaning up	: Take up liquid spill into absorbent material. Ventilate and remove ignition sources. Cover spill area with suitable absorbant material. Shovel into vented container. Repeat if necessary. Decontaminate spill area with a mixture of 90% water and 10% non ionic surfactant such as Tergitol.
Other information	: Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling
- : Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures
- : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed
- : When using a spray gun or other means to aerosolize the material, respiratory protection is recommended.

7.2. Conditions for safe storage, including incompatibilities

- Storage conditions
- : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

1,6-diisocyanatohexane (822-06-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Hexamethylene diisocyanate
ACGIH OEL TWA	0.005 ppm
Remark (ACGIH)	TLV® Basis: URT irr; resp sens. Notations: BEI
Regulatory reference	ACGIH 2024

8.2. Appropriate engineering controls

- Appropriate engineering controls
- : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.
- Environmental exposure controls
- : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses with side shields
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of inadequate ventilation, wear respiratory protection. When using a spray gun or other means to aerosolize the material, respiratory protection is recommended.

Personal protective equipment symbol(s):



UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless to yellow
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 220 °C
Flash point	: 228 °C
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.16 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: 460 °C
Decomposition temperature	: No data available
Viscosity	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content : 0 g/l

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. reaction with water produces CO₂-gas. May rupture closed container.

10.4. Conditions to avoid

Moisture. Extremely high or low temperatures. Avoid ignition sources. Open flame.

10.5. Incompatible materials

Amines. alcohols. Strong bases. Solvents. Water. Aqueous solution. Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Refer to section 5.2 for hazardous decomposition products during combustion.

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

UR7001 Clear B (28182-81-2)	
ATE US (dust, mist)	1.503 mg/l/4h

Hexamethylene diisocyanate homopolymer (28182-81-2)	
LD50 oral rat	> 2500 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

1,6-diisocyanatohexane (822-06-0)	
LD50 oral rat	746 mg/kg (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 7000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	0.124 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 28 day(s))
ATE US (oral)	746 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.124 mg/l/4h
ATE US (dust, mist)	0.124 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Respiratory sensitization: Not classified. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

Hexamethylene diisocyanate homopolymer (28182-81-2)	
STOT-single exposure	May cause respiratory irritation.

1,6-diisocyanatohexane (822-06-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Hexamethylene diisocyanate homopolymer (28182-81-2)	
Viscosity	3408.575 mm²/s
1,6-diisocyanatohexane (822-06-0)	
Viscosity	2.29 mm²/s (20 °C, OECD 114: Viscosity of Liquids)
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Most Important Symptoms/Effects	: Contains diisocyanate. Skin contact may aggravate existing condition, inhalation of aerosol or vapor above or at OEL may aggravate existing respiratory condition.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Hexamethylene diisocyanate homopolymer (28182-81-2)	
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): other:
1,6-diisocyanatohexane (822-06-0)	
EC50 72h - Algae [1]	> 77.4 mg/l (EU Method C.3, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)

12.2. Persistence and degradability

UR7001 Clear B (28182-81-2)	
Persistence and degradability	Not rapidly degradable
Hexamethylene diisocyanate homopolymer (28182-81-2)	
Persistence and degradability	Not rapidly degradable
1,6-diisocyanatohexane (822-06-0)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

1,6-diisocyanatohexane (822-06-0)	
BCF - Fish [1]	59.6 (BCFWIN, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

1,6-diisocyanatohexane (822-06-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.78 – 3.68 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

UN-No. (DOT)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1,6-diisocyanatohexane	CAS-No. 822-06-0	< 0.2%
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1,6-diisocyanatohexane (822-06-0)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
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15.2. International regulations

CANADA

Hexamethylene diisocyanate homopolymer (28182-81-2)

Listed on the Canadian DSL (Domestic Substances List)

1,6-diisocyanatohexane (822-06-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Hexamethylene diisocyanate homopolymer (28182-81-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,6-diisocyanatohexane (822-06-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Hexamethylene diisocyanate homopolymer (28182-81-2)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

1,6-diisocyanatohexane (822-06-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

UR7001 Clear B

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Component	State or local regulations
1,6-diisocyanatohexane(822-06-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Issue date : 4/29/2025

Full text of hazard classes and H-statements	
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H335	May cause respiratory irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.