

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2019

Reviewed on 03/13/2019

1 Identification

- Product identifier

- Trade name: **UR7006HV Clear B**
- Recommended use *Isocyanates*
- Restrictions on use *For industrial use only*

- Details of the supplier of the safety data sheet

- Manufacturer/Supplier:
ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.resinlab.com
- Information Department: Product Safety Department: msds@resinlab.com
- Emergency Telephone Number:
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- Classification of the substance or mixture

Acute Tox. 2 H330 Fatal if inhaled.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335 May cause respiratory irritation.

- Label elements

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).



GHS06 GHS07 GHS08

- Signal word *Danger*

- Hazard-determining components of labeling:

4,4'-methylenebis(cyclohexyl isocyanate)

- Hazard statements

H330 Fatal if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.

- Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves / eye protection / face protection.
 In case of inadequate ventilation wear respiratory protection.
 If on skin: Wash with plenty of water.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center/doctor.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 If experiencing respiratory symptoms: Call a poison center/doctor.
 Take off contaminated clothing and wash it before reuse.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:

- NFPA System

- NFPA ratings (scale 0 - 4)



Health = 2
 Fire = 1
 Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

- HMIS System

- HMIS-ratings (scale 0 - 4)



Health = 2
 Fire = 1
 Reactivity = 0

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- Other hazards
- Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures

- Dangerous components:

CAS: 5124-30-1 EINECS: 225-863-2 Index number: 615-009-00-0 RTECS: NQ 9250000	4,4'-methylenedi(cyclohexyl isocyanate) Acute Tox. 2, H330 Resp. Sens. 1, H334 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	50-60%
CAS: 67762-90-7 EC number: 614-122-2	Siloxanes and Silicones, di-Me, reaction products with silica	5-10%
CAS: 111-46-6 EINECS: 203-872-2 Index number: 603-140-00-6 RTECS: ID 5950000	2,2'-oxybisethanol Acute Tox. 4, H302	0.1-1%
CAS: 77-58-7 EINECS: 201-039-8 Index number: 050-030-00-3 RTECS: WH 7000000	Dibutyltin dilaurate Muta. 2, H341; Repr. 1A, H360; STOT RE 1, H372 Skin Corr. 1B, H314 Skin Sens. 1, H317	≥0-<0.1%

- Additional information:

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

- Description of first aid measures

- General information:

Diisocyanate vapors or mist at concentrations above the TLV or PEL can irritate the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Symptoms affecting the respiratory tract can also occur several hours after exposure.

- After inhalation:

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin rash or irritation occurs, seek medical advice.

Remove all contaminated clothing and wash before reuse.

An MDI study has demonstrated that a polyglycol-based skin cleanser (such as D-Tam TM, PEG-400) or corn oil may be more effective than soap and water.

- After eye contact:

Immediately flush opened eyes with water for 5 minutes, then remove contact lenses if present, continue flushing for at least another 15 minutes.

Get medical attention.

- After swallowing:

If victim is unconscious; never give anything by mouth.

Do NOT induce vomiting.

If victim is conscious, rinse out mouth with water.

Get medical attention

If vomiting occurs spontaneously, keep victim's head below hips to prevent aspiration of liquid into lungs.

- Information for doctor:

- Most important symptoms and effects, both acute and delayed No further relevant information available.

- Indication of any immediate medical attention and special treatment needed

respiratory system tests

Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

- Extinguishing media

- Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

dry chemical

Carbon dioxide

Alcohol resistant foam

Water spray

- For safety reasons unsuitable extinguishing agents: Water with full jet

- Special hazards arising from the substance or mixture

Will not burn unless preheated.

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During heating or in case of fire poisonous gases are produced.

Nitrogen oxides (NOx)

Isocyanates

isocyanic acid

Carbon dioxide (CO₂) and Carbon monoxide (CO)

· **Advice for firefighters**

· **Protective equipment:**

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).

As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.

· **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up:**

For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.

For small spills: Ventilate and wash area. Collect spills and absorbant material in appropriate container.

Ensure adequate ventilation.

Neutralization solution that can be used: Products or product mixtures that have been shown to be effective neutralization solutions for decontaminating surfaces, tools, or equipment that have been in contact with an isocyanate includes:

Products available through industrial suppliers:

· Spartan Chemical Company: 1-800-537-8990:

o Spartan® ShineLine Emulsifier Plus

o Spartan® SC-200 Heavy Duty Cleaner

· Colorimetric Laboratories, Inc. (CLI): 1-847-803-3737

o Isocyanate Decontamination Solution

· A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10)

· Mix equal amounts of the following:

o Mineral spirits (80%), VM&P Naphtha (15%), and household detergent (5%), and

o A 50-50 mixture of monoethanolamine and water

In a separate container, blend the two solutions in a 1:1 ratio by volume. Immediately prior to applying this blended neutralization solution onto the contaminated surface area, mix or agitate the container to help ensure uniform mixing of the ingredients.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Keep away from incompatible material(s).

Avoid any release into the environment.

Do not breathe dust/fumes/mist/vapor/spray.

Avoid contact with eyes, skin and clothing.

Keep away from heat, sparks, flames and ignition sources.

Observe all the personal protection requirements in Section 8.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

5124-30-1 4,4'-methylenedi(cyclohexyl isocyanate)

REL Ceiling limit value: 0.11 mg/m³, 0.01 ppm

TLV Long-term value: 0.054 mg/m³, 0.005 ppm

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

OSHA PEL Short-term value: 15 mg/m³

US ACGIH Short-term value: 10 mg/m³

111-46-6 2,2'-oxybisethanol

WEEL Long-term value: 10 mg/m³

77-58-7 Dibutyltin dilaurate

PEL Long-term value: 0.1 mg/m³
as Sn

REL Long-term value: 0.1 mg/m³
as Sn, Skin

TLV Short-term value: 0.2 mg/m³
Long-term value: 0.1 mg/m³
as Sn; Skin

· **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

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Exposure controls

If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal protective equipment:
General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

Personal Protective Equipment (PPE)
Breathing equipment:

Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves


Chemical resistant gloves

Eye protection:


Safety Glasses with side shields

Body protection: Appropriate chemical resistant clothing.

Limitation and supervision of exposure into the environment

The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:

- Form:** Liquid
- Color:** Colorless
- Odor:** Characteristic
- Odor threshold:** Not determined.

pH-value: Not determined.
Not determined.

Change in condition

- Melting point/Melting range:** Undetermined.
- Boiling point/Boiling range:** Undetermined.

Flash point: >150 °C (>302 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: Not determined.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

- Lower:** Not determined.
- Upper:** Not determined.

Vapor pressure: Not determined.

Vapor Density: not determined

Density at 20 °C (68 °F): 1.1 g/cm³ (9.18 lbs/gal)

- Relative density** Not determined.
- Vapor density** Not determined.
- Evaporation rate** Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

- Dynamic:** Not available.
Not determined.

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· **Kinematic:** Not available.
 · **VOC content:** 0.34 %
 3.7 g/l / 0.03 lb/gal

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Hazardous Reactivity and Chemical Stability**
 Contact with moisture, other materials that react with isocyanates or temperatures above 177 C may cause polymerization.
 Stable under normal conditions of use, storage and temperatures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 In contact with incompatible materials.
 No dangerous reactions known.
- **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.
- **Incompatible materials:**
 Strong acids
 Amines
 Water
 Copper and copper alloys
 Alcohols
 Strong bases
- **Hazardous decomposition products:** Refer to section 5.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

5124-30-1 4,4'-methylenedi(cyclohexyl isocyanate)

Oral	LD50	18,200 mg/kg (rat) (LD50; FDA test method)
Dermal	LD50	>7,000 mg/kg (rat) (LD0; OECD TG 402)
Inhalative	LC50/4 h	mg/l (rat) (OECD TG 403; males and females; aerosol) LC50 = 330 mg/m ³

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Oral	LD50	>5,000 mg/kg (rat) (test method not specified)
Dermal	LD50	mg/kg (Test species: n/a) (Toxicity not expected based on acute oral data)
Inhalative	LC50/4 h	mg/l (Test species: n/a) (Toxicity not expected based on acute oral data)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic
 Harmful
 Irritant
 Very toxic

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential**
 No data available.
 No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.
- **General notes:**
 Water hazard class 1 (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
 - **PBT:** None of the ingredients is listed.
 - **vPvB:** None of the ingredients is listed.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Dispose of according to your local waste regulations.

14 Transport information

· UN-Number	
· DOT	NA3082
· ADN, IMDG	not regulated
· IATA	UN3334
· UN proper shipping name	
· DOT	Other regulated substances, liquid, n.o.s. (4,4'-methylene-di(cyclohexyl isocyanate))
· ADN, IMDG	not regulated
· IATA	Aviation regulated liquid, n.o.s. (.ε.-caprolactone, oligomeric reaction products with 2,2'-oxydiethanol)
· Transport hazard class(es)	
· DOT, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles
· Label	9
· ADN/R Class:	not regulated
· Packing group	
· DOT, IATA	III
· IMDG	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
· UN "Model Regulation":	not regulated

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture	
· SARA Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
· SARA Section 313 (Specific toxic chemical listings):	
5124-30-1	4,4'-methylene-di(cyclohexyl isocyanate) 50-60%
· Section 311/312 (Hazardous Chemical Inventory reporting)	
· SARA Section 311/312 (Hazardous Chemical Inventory Reporting)	
None of the ingredients is listed.	
· Hazard Abbreviations for SARA 311/312	
A - Acute Health Hazard	
C - Chronic Health Hazard	
F - Fire Hazard	
R - Reactive Hazard	
S - Sudden Release of Pressure Hazard	
· TSCA 8 (b) Inventory:	
All ingredients are listed.	
· TSCA new (21st Century Act)	
5124-30-1	4,4'-methylene-di(cyclohexyl isocyanate) ACTIVE/EXEMPT
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica ACTIVE/EXEMPT
111-46-6	2,2'-oxybisethanol ACTIVE/EXEMPT
77-58-7	Dibutyltin dilaurate ACTIVE/EXEMPT
· Hazardous Air Pollutants	
None of the ingredients is listed.	

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· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

77-58-7 Dibutyltin dilaurate

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· International Regulation Lists

· REACH - Substances of Very High Concern (SVHC) List:

None of the ingredients is listed.

· Restriction of Hazardous Substances Directive (RoHS) list:

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department Issuing (M)SDS:** Product Development Department

· **Contact:** msds@resinlab.com

· **Date of preparation / last revision** 03/13/2019 / -

· *** Data compared to the previous version altered.**