Safety Data Sheet
acc. to OSHA HCS

Print Date 12/08/2015 Revision Date 12/08/2015

· **Product Identifier**
· **Trade Name: UR6000 B**
· **Application of the Substance or Mixture:** Isocyanates

· **Details of the Supplier of the Safety Data Sheet (SDS)**
· **Manufacturer or Supplier:**
Resinlab, LLC
N109 W13300 Ellsworth Drive,
Germantown, WI 53022
1-800-388-8605
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)

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2 Hazard(s) identification

· **Hazard Classification**

Acute Tox. 4	H332	Harmful 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.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

· **Label Elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Pictogram(s)**

GHS07 GHS08

· **Signal Word** Danger

· **Hazard-determining Component(s)**
Polymer of 4,4'-diisocyanatodiphenylmethane
4,4'-diisocyanatodiphenylmethane
· **Hazard statements**
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
[In case of inadequate ventilation] wear respiratory protection.
Wear protective gloves.
Wear eye protection / face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard Rating System**
· **NFPA System**
· **NFPA Ratings (scale 0 - 4)**

Health = 2
Fire = 1
Reactivity = 1

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

· **HMIS System**
· **HMIS Ratings (scale 0 - 4)**

Health = *2
Fire = 1
Reactivity = 1

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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**

· Composition/Information on Ingredients		
CAS: 9016-87-9 RTECS: TR 0320000	Polymer of 4,4'-diisocyanatodiphenylmethane Resp. Sens. 1, H334 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	60-70%
CAS: 101-68-8 EINECS: 202-966-0 Index Number: 615-005-00-9 RTECS: NQ 9350000	4,4'-diisocyanatodiphenylmethane Resp. Sens. 1, H334; STOT RE 2, H373 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	25-30%

· **Classification System:**
The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.
· **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.

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4 First-aid measures

· **Description of First Aid Measures**
· **General Information**
Symptoms may be delayed several hours after exposure; victims should be medically observed for at least 48 hours after exposure.
Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

· **After Inhalation**
Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
In case of unconsciousness place patient stably in side position for transportation.
Consult a physician after significant exposure.

· **After Skin Contact**
Remove all contaminated clothing and wash before reuse.
Wash contaminated skin with water and soap and rinse thoroughly.
Seek medical treatment in case of complaints.
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 bathe eyes for 15 minutes under running water.
Immediately remove contact lenses if present. Continue rinsing.
Seek medical advice.

· **After Swallowing**
If victim is unconscious; never give anything by mouth.
If victim is conscious; rinse out mouth and give victim small amounts of water.
Seek medical treatment in case of complaints.

· **Additional Information**
For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

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5 Fire-fighting measures

· **Extinguishing Media**
· **Suitable Extinguishing Agent(s)**
Use fire fighting measures and extinguishing agents that suit the environment.
In case of fire, suitable extinguishing agents are:
Alcohol resistant foam.
Dry chemical or fire-extinguishing powder.
Carbon dioxide (CO_2).
Water spray or water fog.
· **Unsuitable Extinguishing Agent(s)** No relevant information.

· **Firefighting Procedures**
Isolate fire and deny unnecessary entry.
Eliminate all ignition sources if safe to do so.
Do not extinguish fire unless flow can be stopped.
Fight fire remotely due to the risk of explosion.
Burning liquids may be moved by flushing with water; protect personnel and minimize property damage.

· **Special Hazards Arising in Fire**
Will not burn unless preheated.
In case of fire, following can be released:
Various hydrocarbons

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Carbon dioxide (CO_2) and Carbon monoxide (CO)
Hydrogen cyanide (HCN)
Nitrogen oxides

· **Advice for Firefighters**
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.

· **Additional Information** Ensure adequate and functional fire fighting facilities equipped in working area at all times.

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6 Accidental release measures

· **Personal Precautions**
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements.

· **Environmental Precautions** No further relevant information.

· **Cleaning Up Methods**
Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
Moisten first to prevent dusting.
Ventilate and wash area after clean-up is complete.
Collect spills in suitable and properly labeled containers.
Do not use solvents unless following safe handling practices and within the recommended exposure guidelines.
Dispose contaminated chemicals as waste according to Section 13.

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7 Handling and storage

· **Handling**
· **Precautions for Safe Handling**
Ensure good ventilation and/or exhaustion at workplace.
Keep away from incompatible material(s).
Avoid any release into the environment.
Observe all the personal protection requirements in Section 8.
· **Information about Protection Against Explosions and Fires**
Will not burn unless preheated.
Keep away from heat, sparks, open flame and other ignition sources during handling.
Be prepared with respirators.

· **Storage**
· **Requirements to be Met by Storerooms and Receptacles**
Keep stored in accordance with local, regional, national, and international regulations.
· **Information about Storage in One Common Storage Facility**
Store away from incompatible material(s).
Store away from foodstuffs.
Avoid release to the environment.

· **Additional Information** No further relevant information.

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8 Exposure controls/personal protection

· **Engineering Measures or Controls**

· **Exposure Limit Values that Require Monitoring at the Workplace**	
101-68-8 4,4'-diisocyanatodiphenylmethane	
PEL	Ceiling limit value: 0.2 mg/m³, 0.02 ppm
REL	Long-term value: 0.05 mg/m³, 0.005 ppm Ceiling limit value: 0.2* mg/m³, 0.02* ppm *10-min
TLV	Long-term value: 0.051 mg/m³, 0.005 ppm

· **Other Engineering Measures or Controls**
Ventilation rates should be matched to conditions.
If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

· **Personal Protective**
· **General Protective and Hygienic Measures**
Avoid any contact with eye.
Do not eat, drink or smoke during work.
Clean hands and exposed skin thoroughly after work and before breaks.

· **Personal Protective Equipment (PPE)**
· **Breathing Equipment**

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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.

· **Hand Protection**
Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.
Suggested glove type(s):
Nitrile Gloves
Butyl Rubber Gloves

· **Eye Protection**
safety glasses with side shields and or face shield.
tightly sealed goggles and face shields if the potential for splashing occurs.

· **Body Protection** Chemical resistant apron; cover exposed skin.

· **Additional Information**
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.

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9 Physical and chemical properties

· **Information on Basic Physical and Chemical Properties**

· **Appearance:**	
· **Form:**	Liquid
· **Color:**	Clear
· **Odor:**	Characteristic
· **Odor Threshold:**	Not determined.
· **PH-Value:**	Not determined.
· **Change in Condition:**	
· **Melting Point:**	Not determined.
· **Boiling Point:**	Not determined.
· **Flash Point:**	> 150 °C (> 302 °F)
· **Decomposition Temperature:**	Not determined.
· **Auto-ignition Temperature:**	Not determined.
· **Flammability:**	Not determined.
· **Explosion:**	Not determined.
· **Explosion Limits:**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Vapor Pressure:**	Not determined.
· **Vapor Density:**	not determined
· **Density:**	Not determined.
· **Solubility in or Miscibility with**	
· **Water:**	Insoluble.
· **Viscosity:**	
· **Dynamic:**	Not applicable.
· **Kinematic:**	Not determined.

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10 Stability and reactivity

· **Physical Hazard(s)** Not a regulated reactive or physical hazard under GHS.

· **Hazardous Reactivity and Chemical Stability**
May polymerize when heated.
May decompose, condense, or self-react under conditions of high temperature and/or pressure; but there is little or no potential for heat generation or explosion, or readily undergo hazardous polymerization in the absence of inhibitors.

· **Thermal Decomposition and Conditions to be Avoided**
Keep away from incompatible material(s).
Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

· **Possibility of Other Hazardous Reaction(s)**
May slowly react with water and release carbon dioxide (CO_2).
May polymerize in contact with water or moisture.

· **Incompatible Material(s)** water, alcohols, amines, bases, acids.

· **Hazardous Decomposition Product(s)**
Hydrogen cyanide
Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

· **Hazardous Polymerization Product(s)** Polyureas

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11 Toxicological information

· **Acute Toxicity**

· **Oral**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Oral	LD50	(Read-across from CAS 101-68-8) 2200 mg/kg (LD50; mouse) Reference: ChemID Full Record (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Oral	LD50	2200 mg/kg (mouse) Reference: ChemID Full Record (2011).

· **Potential Health Effect(s):** See acute inhalative effect(s) for further information

· **Dermal**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Dermal	LD50	(Read-across from CAS 101-68-8) LD50 > 9400 mg/kg (rabbit) (OECD TG 402) Reference: ECHA (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Dermal	LD50	> 9400 mg/kg (rabbit) (OECD TG 402) Reference: ECHA (2011).

· **Potential Health Effect(s):**
No further relevant information available; classification is not possible.
See acute inhalative effect(s) for further information.

· **Inhalative**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Inhalative	LC50/4 h	1.5 mg/l (Test species: n/a) ATE Mix (inhal): 1.5 mg/l 4h for dust/mist test atmosphere, calculation method. The substance was tested in a different form than what is placed on the market and because of that a modified classification for acute inhalation toxicity is justified. Reference: Vendor SDS 0.39 mg/l (rat) (as dust; test detail not available) The substance was classified as a fatal inhalative hazard (Category 2: dusts) by GHS-J, and a serious hazard (Health: 3) by HMIS. Due to the wetted form, inhalative effects of the substance can be seen as negligible. Reference: GHS-J (2006) and OECD SIAM (2003) and HMIS (2001).

101-68-8 4,4'-diisocyanatodiphenylmethane

Inhalative	LC50/4 h	0.39 mg/l (rat) (no test detail available) The substance was rated as a serious hazard (health rating: 3) via inhalation by HMIS. Meanwhile, the substance was classified as a fatal inhalative hazard (Category 2) by GHS-J. We adopted the classification from GHS-J as a fatal hazard (Category 2) based on the classification criteria. Reference: GHS-J (2006) and OECD SIAM (2003) and HMIS (2001).

· **Potential Health Effect(s):**
Harmful if inhaled.
headache
lung damage
nausea
shortness of breath
sore throat
dyspnea
asthma

· **Skin Corrosion or Irritation**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Corrosion/Irritation	(Read-across from CAS 101-68-8) (rabbit) (OECD TG 404; post-exposure: 14 days) erythema: 2.03/4 (max. 4); not fully reversible within 14 days; edema: 1.43/4 (max. 4); not fully reversible within 14 days. The substance was classified as irritating to rabbit skin. Reference: ECHA (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Corrosion/Irritation	(rabbit) (OECD TG 404; post-exposure: 14 days) erythema: 2.03/4 (max. 4); not fully reversible within 14 days; edema: 1.43/4 (max. 4); not fully reversible within 14 days. The substance was classified as irritating to rabbit skin. Reference: ECHA (2011).

· **Potential Health Effect(s):**
Causes skin irritation.
In contact with skin, may cause:
skin rash
redness and pain

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· **Eye Serious Damage or Irritation**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Damage/Irritation	(Read-across from CAS 101-68-8) (rabbit) (post-exposure: 8 days) cornea and iris : 0.05/4 (Max. 4; 30 seconds contact); fully reversible in 48 hours; conjunctivae: (0.61 or 0.78)/3 (Max. 3; 30 seconds contact); not fully reversible in 8 days; chemosis: (0.56 or 0.61)/4 (Max. 4; 30 seconds contact); not fully reversible in 8 days. The substance was therefore classified to be an eye irritant (Category 2A). Reference: ECHA (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Damage/Irritation	(rabbit) (post-exposure: 8 days) cornea and iris : 0.05/4 (Max. 4; 30 seconds contact); fully reversible in 48 hours; conjunctivae: (0.61 or 0.78)/3 (Max. 3; 30 seconds contact); not fully reversible in 8 days; chemosis: (0.56 or 0.61)/4 (Max. 4; 30 seconds contact); not fully reversible in 8 days. The substance was therefore classified to be a eye irritant (Category 2A). Reference: ECHA (2011).

· **Potential Health Effect(s):**
Causes serious eye irritation.
In contact with eye, may cause:
tear production
redness and pain

· **Respiratory or Skin Sensitization**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Sensitization	Skin	(Read-across from CAS 101-68-8) (guinea pig) (OECD TG 406) - No positive reaction was observed. (human) - there were skin sensitization results reported in human victims caused by the substance. For safety reason, the substance was classified as a skin sensitizer. Reference: ECHA (2011) and OECD SIAM (2003).
	Respiratory	(Read-across from CAS 101-68-8) sensitizing (guinea pig) (intradermal injection and topical application) An antibody response in respiratory system and a pulmonary hypersensitivity were observed in some of the treated humans. Due to wetted form of the substance, inhalative effects can be seen as negligible. Reference: ECHA (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Sensitization	Skin	(guinea pig) (OECD TG 406) No positive reaction was observed. (human) There were skin sensitization results reported in human victims that caused by the substance. For safety reason, the substance was classified as a skin sensitizer. Reference: ECHA (2011) and OECD SIAM (2003).
	Respiratory	sensitizing (guinea pig) (intradermal injection and topical application) An antibody response in respiratory system and a pulmonary hypersensitivity were observed in some of the treated humans. For safety reason, the substance was classified as a respiratory sensitizer. Reference: ECHA (2011).

· **Potential Health Effect(s):**
May cause an allergic skin reaction.
Repeated skin contact may cause dermatitis, skin rash or itchiness.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause asthma attacks with shortness of breath, wheezing, cough, and/or chest tightness.

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

None of the ingredients is listed.

· **Germ Cell Mutagenicity**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Mutagenicity	(Read-across from CAS 101-68-8) In Vitro (AMES tests; Salmonella typhimurium) - negative with and without metabolic activation In Vitro (AMES tests; Escherichia coli) - negative without metabolic activation Reference: CCRIS (2011).

101-68-8 4,4'-diisocyanatodiphenylmethane

Mutagenicity	(salmonella typhimurium) In Vitro (AMES tests) - negative with and without metabolic activation (Escherichia coli) In Vitro - negative without metabolic activation Reference: CCRIS (2011).

· **Potential Health Effect(s):** No further relevant information; classification is not possible.

· **Carcinogenicity**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane

Carcinogenicity	(Read-across from CAS 101-68-8) (rat) - After repeated inhalation with 6.0 mg/m³ of the polymeric MDI for 2 years, some occurrences of pulmonary tumors (6 adenomas and 1 adenocarcinoma in males, and 2 adenomas in females) were reported. However, due to wetted form of the substance, inhalative effects can be seen as negligible. (Test species: N/a) - The substance was not listed as a carcinogen by OSHA, ACGIH, NTP or IARC. When considering all of the evidence, the substance was considered to be of unlikely relevance of carcinogenicity to humans. Reference: ECHA (2011).

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101-68-8 4,4'-diisocyanatodiphenylmethane	
Carcinogenicity	negative (rat) After Inhalation with 6.0 mg/m³ of the polymeric MDI for 2 years, some occurrences of pulmonary tumors (6 adenomas and 1 adenocarcinoma in males, and 2 adenomas in females) were reported. However, it was also found out that exposure of polymeric MDI did not produce pulmonary tumors at concentrations that not leading to recurrent lung tissue damages. Meanwhile, there were no data available regarding tested human number, exposure period, purity of the tested substance etc. (Test species: N/a) The substance was not listed as a carcinogen by OSHA, ACGIH or NTP. IARC Group 3 not classifiable to relevance to humans. When considering all of the evidence, the substance was considered to be of unlikely relevance of carcinogenicity to humans. Reference: ECHA (2011).

· **Potential Health Effect(s):** Not a known Carcinogen.

· **Reproductive Toxicity**	
9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
Reproductive Toxi.	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
Reproductive Toxi.	(No data available)

· **Specific Target Organ Toxicity - Single Exposure**	
9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
STOT-Single	(Read-across from CAS 101-68-8) (Test species: human) Target organs: None There were human case reports that the substance induced respiratory irritation. Due to wetted form of the substance, inhalative effects can be seen as negligible. Reference: GHS-J (2006) and OECD SIAM (2003).
101-68-8 4,4'-diisocyanatodiphenylmethane	
STOT-Single	(Human) Target organs: Respiratory tract irritation (Category 3) There were human case reports that the substance induced respiratory irritation. Reference: GHS-J (2006) and OECD SIAM (2003).

· **Potential Health Effect(s):** May cause respiratory irritation.

· **Specific Target Organ Toxicity - Repeated Exposure**	
9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
STOT-Repeated	(Read-across from CAS 101-68-8) Target organs: None Human cases showed effects including restrictions of pulmonary function, a decline in pulmonary diffusing capacity, asthma, hypersensitivity pneumonitis, pleuritis, and progressive fibrosing alveolitis after chronic exposure to even low concentration levels of the substance. However, due to wetted form of the substance, inhalative effects can be seen as negligible. Reference: ECHA (2011) and OECD SIAM (2003).
101-68-8 4,4'-diisocyanatodiphenylmethane	
STOT-Repeated	(rat) (OECD TG 453) Target organs: respiratory system (Category 1) NOAEC (Inhalation with up to 6.0 mg/m³ of the polymeric MDI for 2 years) = 0.19 mg/m³; the substance caused effects on nasal cavities, lung damages and mediastinal lymph nodes in rats. Reference: ECHA (2011). (human) Target organs: respiratory system (Category 1) Human cases showed effects including restrictions of pulmonary function, a decline in pulmonary diffusing capacity, asthma, hypersensitivity pneumonitis, pleuritis, and progressive fibrosing alveolitis after chronic exposure to even low concentration levels of the substance. Reference: OECD SIAM (2003).

· **Potential Health Effect(s):** May cause damage to organs through prolonged or repeated exposure.

· **Aspiration Hazard**	
9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
Aspiration Hazard	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
Aspiration Hazard	(No data available)

· **Potential Health Effect(s):** No relevant information; classification is not possible.

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12 Ecological information

· **Aquatic Environmental Toxicity**	
9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
Algae Toxicity	(Read-across from CAS 101-68-8) EC50 (3 days) > 1640 mg/l (Scenedesmus subspicatus; OECD TG 201)
Crustacean Toxicity	(Read-across from CAS 101-68-8) > 1000 mg/l (daphnia magna (water flea)) (EC50 (24 hrs), OECD TG 202)

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Fish Toxicity	(Read-across from CAS 101-68-8) > 3000 mg/l (Oryzias latipes (Rice fish)) (LC0 (96 hrs), OECD TG 203) The substance is therefore not classified as hazardous to aquatic organisms based on the classification criteria. Reference: ECHA (2011).
101-68-8 4,4'-diisocyanatodiphenylmethane	
Algae Toxicity	> 1640 mg/l (Scenedesmus subspicatus) (EC50 (3 days), OECD TG 201)
Crustacean Toxicity	> 1000 mg/l (Daphnia magna (water flea)) (EC50 (24 hrs), OECD TG 202)
Fish Toxicity	> 3000 mg/l (Oryzias latipes (Rice fish)) (LC0 (96 hrs), OECD TG 203) The substance is therefore not classified as hazardous to aquatic organisms based on the classification criteria. Reference: ECHA (2011).

· **Aquatic Environmental Toxicity Assessment:** No further relevant information; classification is not possible.

· **Degradability and Stability**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
Biodegradation	(Read-across from CAS 101-68-8) non-biodegrad. (Test species: n/a) (OECD TG 301; 4 weeks; 100 mg/L of the substance)
Persistence	(Read-across from CAS 101-68-8) The substance is not persistent.
Photodegradation	(Read-across from CAS 101-68-8) 1.16E-11 cm³/molecule•sec (OH radical) Half-life = 0.92 day; however, photolysis in water is negligible. Reference: CHRIP (2011), Canada DSL (2007), and ECHA (2011).
Stability in water	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
Biodegradation	non-biodegrad. (Test species: n/a) (OECD TG 301; 4 weeks; 100 mg/L of the substance) Reference: CHRIP (2011).
Persistence	(Test species: n/a) The substance is not persistent. Reference: Canada DSL (2007).
Photodegradation	1.16E-11 cm³/molecule-sec (OH radical) Half-life = 0.92 day; however, photolysis in water is negligible. Reference: ECHA (2011).
Stability in water	(No data available)

· **Bioaccumulation and Distribution**

9016-87-9 Polymer of 4,4'-diisocyanatodiphenylmethane	
LogPow	(Read-across from CAS 101-68-8) 4.51 (Test species: n/a) (OECD TG 117) Reference: ECHA (2011).
BCF	(Read-across from CAS 101-68-8) 92 (Cyprinus carpio) (Chemical concentration: 0.8 µg/L; 28 days) 200 (Chemical concentration: 0.08 µg/L; 28 days) It is not or low bioaccumulative in aquatic environment. Reference: CHRIP (2011).
Koc	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
LogPow	4.51 (Test species: n/a) (OECD TG 117) Reference: ECHA (2011).
BCF	92 (Cyprinus carpio) (Chemical concentration: 0.8 µg/L; 28 days) 200 (Chemical concentration: 0.08 µg/L; 28 days) It is not or low bioaccumulative in aquatic environment. Reference: CHRIP (2011).
Koc	(No data available)

· **Degradability and Bioaccumulation Assessment:** Non-rapidly degradable, and low bioaccumulative.

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13 Disposal considerations

· **Hazardous Waste List**
· **Description:** It may be necessary to contain and dispose of the substance/mixture as a hazardous waste.

· **Waste Treatment Recommendation:**
Generation of waste should be avoided or minimized wherever possible.
Chemical waste, even small quantities, is neither allowed to be poured down drains, sewage system or waterways; nor disposed with household garbage.
Dispose of contents/containers in accordance with local, regional, national, and international regulations.

· **Unused and Uncontaminated Packagings**
· **Recommendation** Dispose of according to your local waste regulations.

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14 Transport information

· **UN-Number**	Not regulated for transport; not applicable.
· **ADR, ADN, IMDG, IATA**	-

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acc. to OSHA HCS

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Trade Name: UR6000 B

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· **UN Proper Shipping Name**	Not regulated for transport; not applicable.
· **Transport hazard class(es)**	Not regulated for transport; not applicable.
· **ADR, ADN, IMDG, IATA** · **Class**	-
· **Packing group** · **ADR, IMDG, IATA**	Not regulated for transport; not applicable. -
· **Environmental Hazards:**	Not applicable.
· **Special Precautions:**	Not applicable.
· **Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional Information:**	
· **DOT** · **Quantity limitations**	when shipped in individual containers less than the RQ of 5000lbs this material ships as non regulated.
· **UN "Model Regulation":**	-

15 Regulatory information

· **USA Regulation Lists**

· **SARA (Superfund Amendments and Reauthorization Act of 1986)**

· **Section 302 (Extremely Hazardous Substances)**

None of the ingredients is listed.

· **Section 313 (Toxics Release Inventory (TRI) reporting)**

9016-87-9	Polymer of 4,4'-diisocyanatodiphenylmethane	60-70%
101-68-8	4,4'-diisocyanatodiphenylmethane	25-30%

· **Section 311/312 (Hazardous Chemical Inventory Reporting)**

101-68-8	4,4'-diisocyanatodiphenylmethane	A, C	25-30%

· **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 (Toxic Substances Control Act)**

All ingredients are listed.

· **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)**

9016-87-9	Polymer of 4,4'-diisocyanatodiphenylmethane	CBD
101-68-8	4,4'-diisocyanatodiphenylmethane	D, CBD

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

9016-87-9	Polymer of 4,4'-diisocyanatodiphenylmethane	3
101-68-8	4,4'-diisocyanatodiphenylmethane	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value Established by ACGIH)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **International Regulation Lists**

· **Canadian Domestic Substance Listings:**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

101-68-8	4,4'-diisocyanatodiphenylmethane

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· **Canadian Ingredient Disclosure list (limit 1%)**
None of the ingredients is listed.

· **Chinese Chemical Inventory of Existing Chemical Substances:**
All ingredients are listed.

· **Japanese Existing and New Chemical Substance List:**
All ingredients are listed.

· **Korean Existing Chemical Inventory:**
All ingredients are listed.

· **European Pre-registered substances:**
All ingredients are listed.

· **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.

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 Safety Department
· **Contact:** msds@resinlab.com

· **Abbreviations and acronyms:**
ACGIH: American Conference of Governmental Industrial Hygienists
ACToR: US EPA Aggregated Computational Toxicology Resource
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
BCF: Bioconcentration Factor
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System
ChemID (Full Record): US NLM Chemical Information Database (or its Full Record) designed to help search for information by chemical name or structure
CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform
DOT: US Department of Transportation
DSL: Canada Domestic Substance List
ESIS: European Chemical Substances Information System
HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System
HSDB: US NLM TOXNET Hazardous Substances Databank
HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO)
IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA)
ICAO-TI: Technical Instructions (TI) by the International Civil Aviation Organization (ICAO)
ICSC: International Chemical Safety Cards
IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG)
Koc: Partition coefficient, soil Organic Carbon to water
LC50/LD50: Lethal Concentration/Dose, 50 percent
N/a: Not available or Not applicable
NFPA: US National Fire Protection Association
NIOSH: US National Institute of Occupational Safety and Health
NITE: National Institute of Technology and Evaluation, Japan
OECD: Organisation for Economic Co-operation and Development
OSHA: US Occupational Safety and Health Administration
P: Marine Pollutant
RCRA: Resource Conservation and Recovery Act (USA)
REACh: EU Registry, Evaluation and Authorisation of Chemicals
RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF)
RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN)
RTECS: US Registry of Toxic Effects of Chemical Substances
SARA: US Superfund Amendments and Reauthorization Act
SIDS: OECD existing chemicals Screening Information Data Sets
SVHC: EU ECHA Substance of Very High Concern
TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE)
TOXLINE: US NLM bibliographic database search system
TSCA: US Toxic Substance Control Act
· **Date of preparation / last revision** 12/08/2015 / 3