Safety Data Sheet
acc. to OSHA HCS

Print Date 02/23/2017 Revision Date 02/23/2017

· **Product Identifier**
· **Trade Name: UR3010 CLEAR 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.

· **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 statements**
H332 Harmful 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.

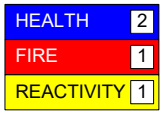
· **Precautionary statements**
In case of inadequate ventilation wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves / eye protection / face protection.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
Wash contaminated clothing before reuse.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
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

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

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3 Composition/information on ingredients

· **Chemical Characterization: Mixtures**

· **Composition/Information on Ingredients**		
CAS: 17557-23-2 EINECS: 241-536-7 Index Number: 603-094-00-7 RTECS: TX3760000	Diglycidyl ether of neopentyl gylcol Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 Eye Dam. 2B, H320	40-50%
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	30-40%
CAS: 128-37-0 EINECS: 204-881-4 RTECS: GO 7875000	2,6-di-tert-butyl-p-cresol Aquatic Acute 1, H400 Acute Tox. 4, H302	0.25-1%

· **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.

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4 First-aid measures

· **Description of First Aid Measures**

· **General Information**
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**
Move victim to fresh air. Get medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered.

· **After Skin Contact**
Remove all contaminated clothing and wash before reuse.
Wash contaminated skin with water and soap and rinse thoroughly.
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.
Seek medical treatment in case of complaints.

· **After Eye Contact**
Immediately bathe eyes for 15 minutes under running water.
Immediately remove contact lenses if present. Continue rinsing.
Seek medical treatment in case of complaints.

· **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.
Do NOT induce vomiting.

· **Information for Doctor**

· **Indication of any Immediate Medical Attention and Special Treatment Needed**
Check section 11 Toxicological Information for further relevant information.

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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.

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

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

· **Cleaning Up Methods**
Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
Absorb residues with liquid-binding materials.
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.

· **Additional Information**
Absorb spillages onto sand, earth or any suitable adsorbent material. Leave to react for at least 30 minutes. Shovel into open-top drums for further decontamination. Wash the spillage area with water. Test atmosphere for MDI vapour. Neutralise small spillages with decontaminant. Remove and dispose of residues. Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
101-68-8	4,4'-diisocyanatodiphenylmethane	0.45 mg/m3
· **PAC-2:**		
101-68-8	4,4'-diisocyanatodiphenylmethane	5 mg/m3
· **PAC-3:**		
101-68-8	4,4'-diisocyanatodiphenylmethane	55 mg/m3

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7 Handling and storage

· **Handling**
· **Precautions for Safe Handling**
Avoid breathing vapor.
Ensure good ventilation and/or exhaustion at workplace.
Keep away from incompatible material(s).
Avoid any release into the environment.
Keep container tightly closed when not in use if product is volatile so as to generate hazardous atmosphere.
For industrial or professional use only
Observe all the personal protection requirements in Section 8.
· **Information about Protection Against Explosions and Fires**
Keep away from heat, sparks, open flame and other ignition sources during handling.

· **Storage**
· **Requirements to be Met by Storerooms and Receptacles**
Store in a well-ventilated place; provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

· **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**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

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
128-37-0 2,6-di-tert-butyl-p-cresol	
REL	Long-term value: 10 mg/m³
TLV	Long-term value: 2* mg/m³ *as inhalable fraction and vapor

· **Other Engineering Measures or Controls**
This material contains a respiratory sensitizer. The occupational exposure limits do not apply to individuals who have previously been sensitized to MDI. Sensitized individuals should be removed from exposure.

· **Personal Protective**
· **General Protective and Hygienic Measures**
Use of this material at elevated temperatures or aerosol/spray applications may require additional precautions.
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**
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.

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· **Hand Protection**
Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.
Nitrile Gloves
Butyl Rubber Gloves
· **Eye Protection** safety glasses with side shields and or face shield.
· **Body Protection** Appropriate chemical resistant clothing.

· **Additional Information**
All protective clothing (suits, gloves, footwear, headgear) should be clean, available every day, and put on before work.
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:**	Dark amber
· **Odor:**	Slightly musty
· **Odor Threshold:**	Not determined.
· **PH-Value:**	Not determined.
· **Change in Condition:**	
· **Melting Point:**	Not determined.
· **Boiling Point:**	Not determined.
· **Flash Point:**	>204 °C (>399 °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 at 20 °C (68 °F):**	1.1 g/cm³ (9.18 lbs/gal)
· **Solubility in or Miscibility with**	
· **Water:**	Not miscible or difficult to mix.
· **Viscosity:**	
· **Dynamic at 20 °C (68 °F):**	275 mPas
· **Kinematic:**	Not determined.
· **Additional Information**	No further relevant information.

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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 during high temperatures.
· **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 corrode alkali metals.
May polymerize in contact with water or moisture.
· **Incompatible Material(s)**
Moisture.
Water
Oxidizing agents
Strong bases
Acids
· **Hazardous Decomposition Product(s)**
Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

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11 Toxicological information

For detailed Toxilogical Information please email the Product Safety Department.

· **Acute Toxicity**

· **Oral**		
17557-23-2 Diglycidyl ether of neopentyl gylcol		
Oral	LD50	4500 mg/kg (rat) Reference: ChemID (2010).
101-68-8 4,4'-diisocyanatodiphenylmethane		
Oral	LD50	2200 mg/kg (mouse)
25686-28-6 4,4 MDI Homopolymer		
Oral	LD50	(rat) (LD50>5000 mg/kg; Females; OECD TG 425) Reference: ECHA (2012).

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128-37-0 2,6-di-tert-butyl-p-cresol		
Oral	LD50	> 2930 mg/kg (rat) (LD0; OECD TG 401)

· **Potential Health Effect(s):**
Not a classified acute oral hazard.
See acute inhalative effect(s) for further information

· **Dermal**

17557-23-2 Diglycidyl ether of neopentyl gylcol		
Dermal	LD50	(rat) > 2000 mg/kg; end value or test detail was not available; classification was not possible.
101-68-8 4,4'-diisocyanatodiphenylmethane		
Dermal	LD50	> 9400 mg/kg (rabbit) (OECD TG 402)
25686-28-6 4,4 MDI Homopolymer		
Dermal	LD50	> 9400 mg/kg (rabbit) (OECD TG 402) Reference: ECHA (2012).
128-37-0 2,6-di-tert-butyl-p-cresol		
Dermal	LD50	≥ 2000 mg/kg (rat) (LD0; OECD TG 402; occlusive)

· **Potential Health Effect(s):**
Not a classified acute dermal hazard.
See acute inhalative effect(s) for further information.

· **Inhalative**

17557-23-2 Diglycidyl ether of neopentyl gylcol		
Inhalative	LC50/4 h	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane		
Inhalative	LC50/4 h	0.49 mg/l (rat) (no test detail available) Based on expert judgment and the weight of the evidence, a modified classification for acute inhalation toxicity is justified.
25686-28-6 4,4 MDI Homopolymer		
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on acute oral data)
128-37-0 2,6-di-tert-butyl-p-cresol		
Inhalative	LC50/4 h	(No data available)

· **Potential Health Effect(s):**
Harmful if inhaled.
While not a classified acute inhalative hazard due to wetted form, the product may cause the following symptoms when heated, sprayed, or aerosolized:
cough
headache
lung damage
nausea
shortness of breath
sore throat
dyspnea
asthma

· **Skin Corrosion or Irritation**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
Corrosion/Irritation (static)	irritating (rabbit) (No test detail available) Based on manufacturer's (M)SDS, the substance was considered to be moderately irritating to rabbit skin. Based on NIOSH ICSC, the substance irritated eyes and skin. Reference: NIOSH ICSC (2010).
101-68-8 4,4'-diisocyanatodiphenylmethane	
Corrosion/Irritation	irritating (rabbit) (OECD TG 404; post-exposure: 14 days)
25686-28-6 4,4 MDI Homopolymer	
Corrosion/Irritation	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Corrosion/Irritation	slightly (rabbit) (Patch test; Semiocclusive; neat substance)

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

· **Eye Serious Damage or Irritation**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
Damage/Irritation	slightly (rabbit) (No test detail available) Based on manufacturer's MSDS, the substance was considered to be slightly irritating to rabbit eyes. Based on NIOSH ICSC, the substance irritated eyes and skin. Reference: NIOSH ICSC.
101-68-8 4,4'-diisocyanatodiphenylmethane	
Damage/Irritation	irritating (rabbit) (post-exposure: 8 days)
25686-28-6 4,4 MDI Homopolymer	
Damage/Irritation	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Damage/Irritation	slightly (rabbit)

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

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redness and pain

· **Respiratory or Skin Sensitization**

17557-23-2 Diglycidyl ether of neopentyl gylcol		
Sensitization	Skin	sensitizing (Test species: n/a) The substance was classified as a contact sensitizer. Reference: ERMA HSNO (2010) and NIOSH ICSC (2010).
	Respiratory	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane		
Sensitization	Skin	sensitizing (guinea pig) (OECD TG 406) For safety reason, the substance was classified as a skin sensitizer.
	Respiratory	sensitizing (guinea pig) (intradermal injection and topical application)
25686-28-6 4,4 MDI Homopolymer		
Sensitization	Skin	(No data available)
	Respiratory	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol		
Sensitization	Skin	not sensitizing (Human)
	Respiratory	(No data available)

· **Potential Health Effect(s):**
May cause an allergic skin reaction.
Repeated skin contact may cause dermatitis, skin rash or itchiness.
No further relevant information for respiratory sensitization; classification is not possible.
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**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
Mutagenicity	(salmonella typhimurium) In Vitro (Ames tests with salmonella typhimurium; strains: TA100 and TA1535) - Positive with and without metabolic activation. Due to the absence of In Vivo test results, the substance can't be classified as a germ cell mutagen. Reference: NLM TOXNET CCRIS (2010).
101-68-8 4,4'-diisocyanatodiphenylmethane	
Mutagenicity	negative (salmonella typhimurium)
25686-28-6 4,4 MDI Homopolymer	
Mutagenicity	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Mutagenicity	negative (Test species listed below)

· **Potential Health Effect(s):** Not a known Germ Cell Mutagen.

· **Carcinogenicity**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
Carcinogenicity	negative (Test species: n/a) Not listed as a carcinogen by IARC.
101-68-8 4,4'-diisocyanatodiphenylmethane	
Carcinogenicity	negative (rat) 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).
25686-28-6 4,4 MDI Homopolymer	
Carcinogenicity	Negative (Test species: n/a) Not listed as a carcinogen according to ACGIH, IARC, NTP, or OSHA.
128-37-0 2,6-di-tert-butyl-p-cresol	
Carcinogenicity	negative (Test species: n/a) Not listed as a carcinogen by ACGIH, NTP, or OSHA; and listed as a Group 3 carcinogen by IARC, which was not classifiable as to its carcinogenicity to humans.

· **Reproductive Toxicity**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
Reproductive Toxi.	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
Reproductive Toxi.	(No data available)
25686-28-6 4,4 MDI Homopolymer	
Reproductive Toxi.	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Reproductive Toxi.	negative (rat) (2-generation chronic feeding; up to 500 mg/kg bw/d)

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

· **Specific Target Organ Toxicity - Single Exposure**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
STOT-Single	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
STOT-Single	irritant (Human)

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25686-28-6 4,4 MDI Homopolymer	
STOT-Single	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
STOT-Single	not classified (Human) (human epidemiological reports) Not classified.

· **Potential Health Effect(s):**
May cause respiratory irritation.
Not a known hazard to organs upon single exposure.

· **Specific Target Organ Toxicity - Repeated Exposure**	
17557-23-2 Diglycidyl ether of neopentyl gylcol	
STOT-Repeated	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
STOT-Repeated	respiratory (rat) (OECD TG 453) Target organs: respiratory system (Category 1)
25686-28-6 4,4 MDI Homopolymer	
STOT-Repeated	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
STOT-Repeated	not classified (Rats and Mice)

· **Potential Health Effect(s):** Not a known hazard to organs upon repeated exposure.

· **Aspiration Hazard**	
17557-23-2 Diglycidyl ether of neopentyl gylcol	
Aspiration Hazard	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
Aspiration Hazard	(No data available)
25686-28-6 4,4 MDI Homopolymer	
Aspiration Hazard	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Aspiration Hazard	(No data available)

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

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

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12 Ecological information

· **Aquatic Environmental Toxicity**	
17557-23-2 Diglycidyl ether of neopentyl gylcol	
Algae Toxicity	(No data available)
Crustacean Toxicity	(No data available)
Fish Toxicity	(No data available)
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)
25686-28-6 4,4 MDI Homopolymer	
Algae Toxicity	> 1640 mg/l (Scenedesmus subspicatus) (EC50 (72 hrs); OECD TG 201)
Crustacean Toxicity	> 1000 mg/l (Daphnia magna (water flea)) (EC50 (24 hrs); OECD TG 202) NOEC (21 days; OECD TG 211) ≥ 10 mg/l
Fish Toxicity	> 3000 mg/l (Oryzias latipes (Rice fish)) (LC0 (96 hrs); OECD TG 203) Reference: ECHA (2012).
128-37-0 2,6-di-tert-butyl-p-cresol	
Algae Toxicity	> 0.4 mg/l (Scenedesmus subspicatus) (EC50 (72 hrs); EU Method C3)
Crustacean Toxicity	0.48 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs); OECD TG 202)
Fish Toxicity	> 0.57 mg/l (Brachydanio rerio (Zebra fish)) (LC0 (96 hrs); Directive 84/449/EEC C1)

· **Aquatic Environmental Toxicity Assessment:** Not a known Environmental hazard to aquatic life.

· **Degradability and Stability**	
17557-23-2 Diglycidyl ether of neopentyl gylcol	
Biodegradation	(No data available)
Persistence	(Test species: n/a) This substance is not persistent. Reference: Canada DSL (2007).
Photodegradation	(No data available)
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)
Persistence	not persistant (Test species: n/a)
Photodegradation	1.16E-11 cm³/molecule-sec (OH radical)
Stability in water	(No data available)

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25686-28-6 4,4 MDI Homopolymer	
Biodegradation	Not biodegrad. (Test species: n/a) (OECD TG 302C) Biodegradation (4 weeks) = 61%; the substance is not biodegradable. Reference: ECHA (2012).
Persistence	(Test species: n/a) The substance is persistent. Reference: Canada DSL (2007).
Photodegradation	5.9E-12 cm³/molecule-sec (OH radical) Half-life (1.5E6) = 0.89 days Reference: ECHA (2012).
Stability in water	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
Biodegradation	non-biodegrad. (Test species: n/a) (Standard test; Chemical conc. 50 ppm; 4 weeks)
Persistence	(Test species: n/a) The substance is not persistent.
Photodegradation	1.83E-11 cm³/molecule-sec (OH radical) (Estimated from AOPWIN, v1.90)
Stability in water	(Test species: n/a) Half-life (DT50; 20 °C) = 4 - 8 days

· **Bioaccumulation and Distribution**

17557-23-2 Diglycidyl ether of neopentyl gylcol	
LogPow (static)	0.23 (Test species: n/a) Reference: CHRIP (2011).
BCF	(Test species: n/a) The substance is not bioaccumulative. Reference: Canada DSL (2007).
Koc	(No data available)
101-68-8 4,4'-diisocyanatodiphenylmethane	
LogPow	4.51 (Test species: n/a) (OECD TG 117)
BCF	92 (Cyprinus carpio) (Chemical concentration: 0.8 µg/L; 28 days)
Koc	(No data available)
25686-28-6 4,4 MDI Homopolymer	
LogPow	8.56 (Test species: n/a) Reference: ECHA (2012).
BCF	(Test species: n/a) BCF (0.8 mg/l) = 92 BCF (0.08 mg/l) = 200 The substance is not bioaccumulative. Reference: ECHA (2012) and Canada DSL (2007).
Koc	(No data available)
128-37-0 2,6-di-tert-butyl-p-cresol	
LogPow	5.1 (Test species: n/a) (Shake-flask method) Reference: CHRIP (2011) and ECHA (2012).
BCF	(Cyprinus carpio) The substance is moderately bioaccumulative.
Koc	low potential L/kg (Test species: n/a) (Estimated by QSAR calculation)

· **Degradability and Bioaccumulation Assessment:** No further relevant information; assessment is not possible.

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

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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**	
· **DOT, ADR, ADN, IMDG, IATA**	Not Regulated
· **UN Proper Shipping Name**	
· **DOT, ADN, IMDG, IATA**	Not Regulated
· **Transport hazard class(es)**	
· **DOT, ADR, ADN, IMDG, IATA**	
· **Class**	Not Regulated
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	Not Regulated

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· **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**	
· **Remarks:**	Single containers less than 5000 lbs are not regulated.

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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)**

101-68-8	4,4'-diisocyanatodiphenylmethane	30-40%

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

101-68-8	4,4'-diisocyanatodiphenylmethane	A, C	30-40%

· **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)**

101-68-8	4,4'-diisocyanatodiphenylmethane	D, CBD

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

101-68-8	4,4'-diisocyanatodiphenylmethane	3
128-37-0	2,6-di-tert-butyl-p-cresol	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

128-37-0	2,6-di-tert-butyl-p-cresol	A4

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

None of the ingredients is listed.

· **International Regulation Lists**

· **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.

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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
ECHA: European Chemicals Agency's Dissemination portal with information on chemical substances registered under REACH
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)
IUCLID: EU REACh International Uniform Chemical Information Database
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
NLM TOXNET: US National Library of Medicine Toxicology Data Network
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
ESIS: European Chemical Substances Information System
· **Date of preparation / last revision** 02/23/2017 / 4