

UR6000 Black B Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 02/11/2025 Version: 1.1

SECTION 1: Identification	
1.1. Identification	
Product form	: Mixture
Product name	: UR6000 Black B
1.2. Recommended use and restriction	ns on use
Recommended use	: Isocyanates
Restrictions on use	: Product for industrial use only
1.3 Supplier	
Resint ab 11 C	
N109 W13300 Ellsworth Drive	
Germantown, WI 53022 - United States	
I 1-877-259-1669 msds@resinlab.com - www.resinlab.com	
1.4. Emergency telephone number	
Emergency number	: CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)
SECTION 2: Hazard(s) identificatio	n
2.1. Classification of the substance or	mixture
GHS US classification	
Acute toxicity (inhalation:dust mist) Category	4 H332 Harmful if inhaled
Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category	2 H319 Causes serious eye irritation.
Respiratory sensitization, Category 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Specific target organ toxicity – Single exposu	re, Category 3, H335 May cause respiratory irritation.
Respiratory tract irritation	
Full text of H statements : see section 16	
2.2 CHC Label elements including pr	
2.2. GHS Label elements, including pr	acautionary statements
Hazard pictograms (CHS US)	
Signal word (GHS US) :	Danger
Hazard statements (GHS US) :	H315 - Causes skin irritation
	H317 - May cause an allergic skin reaction H319 - Causes serious eve irritation
	H332 - Harmful if inhaled
	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H335 - May cause respiratory irritation
Precautionary statements (GHS US) :	P261 - Avoid breathing dust, fume, gas, mist, vapors, spray. P264 - Wash hands, forearms and face thoroughly after handling
	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.
	P302+P352 - If on skin: Wash with plenty of water
	P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
	P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	ienses, il present and easy to do. Continue rinsing. P312 - Call a poison center or doctor if you feel unwell
	P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
	P337+P313 - If eye irritation persists: Get medical advice or attention.
	P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor.
	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
	P405 - Store locked up.

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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. Other hazards which do not result in classification			
Other hazards which do not resul classification	t in : Possible sensiti	zer, reacts with common materials such as water and alcoh	nols releasing CO2.
2.4. Unknown acute toxicity	(GHS US)		
Not applicable			
SECTION 3. Composition	Information on ingredients		
3.1 Substances			
Not applicable			
3.2 Mixtures			
Namo		Product identifier	0/
Isocyanic acid polymethylenepolyph	envlene ester	(CAS-No.) 9016-87-9	50 - 75
4 4'-dijsocvanatodiphenvlmethane		(CAS-No.) 101-68-8	30 - 50
Full text of hazard classes and H-s	tatements : see section 16		
SECTION 4: First-aid meas	sures		
4.1. Description of first aid	measures		
First-aid measures general	: Call a poison ce	nter/doctor/physician if you feel unwell.	
First-aid measures after inhalatio	n : If inhaled: Remo sensitization cal inhalation expos rest and be kep call a doctor.	ove person to fresh air and keep comfortable for breathing. n occur from a single large inhalation exposure or from rep sures. Observe OELs. Symptoms may be delayed. The aff t under medical observation 48 Hours. If experiencing resp	Asthmatic beated lower iected person must iratory symptoms,
First-aid measures after skin cont	act : Polyglycol base than using soap immediately witl or rash occurs:	d skin cleansers such as Tam D or PEG 400 or corn oil ma and water. If no corn oil or polyglycol-based skin cleanser h plenty of water for 15 minutes. Take off contaminated clo Get medical advice/attention.	iy be more effective available, Rinse thing. If skin irritation
First-aid measures after eye cont	act : Rinse cautiously do. Continue rin	/ with water for several minutes. Remove contact lenses, if using. If eye irritation persists: Get medical advice/attention.	present and easy to
First-aid measures after ingestion	: Rinse mouth. D	o not induce vomiting. Get medical advice/attention.	
4.2. Most important sympto	ms and effects (acute and delaye	ed)	
Symptoms/effects after inhalation	: May cause resp if inhaled.	iratory irritation. May cause allergy or asthma symptoms or	r breathing difficulties
Symptoms/effects after skin conta	act : Irritation. May ca	ause an allergic skin reaction.	

Symptoms/effects after eye contact : Eye irritation.

: Contains diisocyanate. Skin contact may aggravate existing condition, inhalation of aerosol or vapor above or at OEL may aggravate existing respiratory condition.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Most Important Symptoms/Effects

SECT	ION 5: Fire-fighting measures		
5.1.	Suitable (and unsuitable) extinguishin	ng	media
Suitab	le extinguishing media	:	Dry powder. Foam. Carbon dioxide.
Unsuit	able 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 che	mi	cal
Hazaro fire	dous decomposition products in case of	:	Toxic fumes may be released,Carbon oxides (CO, CO2),Nitrogen oxides,Hydrogen cyanide, In the event of extreme heat (>500 degrees C), aniline is suspected of being formed.
5.3.	Special protective equipment and pre	ca	utions for fire-fighters
Protec	tion during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION	SECTION 6: Accidental release measures		
6.1.	Personal precautions, protective equipment and emergency procedures		
6.1.1. Emerge	For non-emergency personnel ency procedures	: Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.	
6.1.2. Protecti	For emergency responders we equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
6.2.	Environmental precautions		
Avoid rel	ease to the environment.		
6.3.	Methods and material for containment	t and cleaning up	
Method	s 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 in	nformation	: Dispose of materials or solid residues at an authorized site.	
6.4.	Reference to other sections		
For furthe	er information refer to section 13.		
SECTIO	ON 7: Handling and storage		
7.1.	Precautions for safe handling		
Additior	nal hazards when processed	: When using a spray gun or other means to aerosolize the material, respiratory protection is recommended.	
Precaut	tions 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	e measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.	
7.2.	Conditions for safe storage, including	any incompatibilities	

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

SECTION 8: Exposure controls/	personal protectio	n

8.1. Control parameters

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)					
Not applicable					
4,4'-diisocyanatodiphenylmethane (101-68-8)					
ACGIH	Local name	Methylene bisphenyl isocyanate (MDI)			
ACGIH	ACGIH OEL TWA	0.005 ppm			
ACGIH	Remark (ACGIH)	TLV® Basis: Resp sens			
ACGIH	Regulatory reference	ACGIH 2024			
OSHA	OSHA PEL (Ceiling)	0.2 mg/m ³			
OSHA	OSHA PEL (Ceiling)	0.02 ppm			
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1			

8.2.	Appropriate engineering controls		
Approp	riate engineering controls	:	Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.
Enviror	nmental exposure controls	:	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

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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):



SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and ch	emical properties	
Physical state	: Liquid	
Color	: Amber	
Odor	: Musty	
Odor threshold	: No data available	
рН	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: > 150 °C	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability	: Not applicable.	
Vapor pressure	: No data available	
Relative vapor density at 20°C	: No data available	
Relative density	: No data available	
Density	: 1.23	
Solubility	: No data available	
Partition coefficient n-octanol/water (Log Pow)	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Viscosity, dynamic	: No data available	
Explosion limits	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: No data available	
VOC content	No data available	

SECTION 10: Stability and reactivity

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

10.2. **Chemical stability**

Stable under normal conditions.

Possibility of hazardous reactions 10.3.

Exothermic reaction with materials containing active hydrogen groups. reaction with water produces CO2-gas. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of

10.1.

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solvents. MDI is insoluble with, and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating carbon dioxide gas.

10.4. Conditions to avoid	.4. Conditions to avoid		
linimize exposure to air. Extremely high or low temperatures. Moisture.			
0.5. Incompatible materials			
cids. Amines. Bases (Alkalis). Metals. Water.			
10.6. Hazardous decomposition products			
Carbon oxides (CO, CO2). Nitrogen oxides. Hydroge	en cyanide.		
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.		
ATE US (dust, mist)	1.5 mg/l/4h		
Isocyanic acid, polymethylenepolyphenylene	ester (9016-87-9)		
LD50 oral rat	> 10000 mg/kg (Rat, Literature study, Oral)		
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)		
ATE US (gases)	4500 ppmV/4h		
ATE US (vapors)	11 mg/l/4h		
ATE US (dust, mist)	1.5 mg/l/4h		
4,4'-diisocyanatodiphenylmethane (101-68-8)			
LD50 oral rat	> 2000 mg/kg body weight (Rat, Male / female, Read-across, Oral, 14 day(s))		
LD50 dermal rabbit	> 9400 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))		
ATE US (gases)	4500 ppmV/4h		
ATE US (vapors)	11 mg/l/4h		
ATE US (dust, mist)	1.5 mg/l/4h		
Skin corrosion/irritation	Causes skin irritation.		
Serious eye damage/irritation	Causes serious eye irritation.		
Respiratory or skin sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.		
Germ cell mutagenicity	Not classified		
Carcinogenicity	Not classified		
Isocyanic acid, polymethylenepolyphenylene	ester (9016-87-9)		
IARC group	3 - Not classifiable		
4,4'-diisocyanatodiphenylmethane (101-68-8)			
IARC group	3 - Not classifiable		
Reproductive toxicity	Not classified		
STOT-single exposure	May cause respiratory irritation.		
Isocyanic acid, polymethylenepolyphenylene	ester (9016-87-9)		
STOT-single exposure	May cause respiratory irritation.		
4,4'-diisocyanatodiphenylmethane (101-68-8)			
STOT-single exposure	May cause respiratory irritation.		
STOT-repeated exposure	Not classified.		
Isocyanic acid, polymethylenepolyphenylene	ester (9016-87-9)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
4,4'-diisocyanatodiphenylmethane (101-68-8)			
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
Aspiration hazard	Not classified		

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Symptoms/effects after inhalation	:	May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	:	Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	:	Eye irritation.
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. Toxicity		
Ecology - general :	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.	
Isocyanic acid, polymethylenepolyphenylene	ester (9016-87-9)	
LC50 - Other aquatic organisms [1]	> 1000 mg/l (96 h, Literature study)	
4,4'-diisocyanatodiphenylmethane (101-68-8)		
NOEC (chronic)	≥ 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
12.2. Persistence and degradability		
Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
Persistence and degradability	Not readily biodegradable in water.	
4,4'-diisocyanatodiphenylmethane (101-68-8)		
Persistence and degradability	Not readily biodegradable in water.	

12.3. Bioaccumulative potential

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
BCF - Fish [1]	268 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	10 (Calculated, KOWWIN)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
4,4'-diisocyanatodiphenylmethane (101-68-8)		
BCF - Fish [1]	92 – 200 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)	
Partition coefficient n-octanol/water (Log Pow)	4.5 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 22 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	

12.4. Mobility in soil

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	9.1 – 11 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Adsorbs into the soil.	
4,4'-diisocyanatodiphenylmethane (101-68-8)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.5 – 5.5 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Adsorbs into the soil.	

12.5. Other adverse effects

No additional information available

SECT	ON 13: Disposal consideration	S
13.1.	Disposal methods	
Waste	treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.

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SECTION 14: Transport information

Department of Transportation (DOT) In accordance with DOT		
Transport document description (DOT) UN-No. (DOT)	:	NA3082 Other regulated substances, liquid, n.o.s. (4,4'-diisocyanatodiphenylmethane), 9, III NA3082
Proper Shipping Name (DOT)	Ξ	Other regulated substances, liquid, n.o.s. 4,4'-diisocyanatodiphenylmethane
Class (DOT)	:	9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	:	III - Minor Danger
Hazard labels (DOT)	:	9 - Class 9 (Miscellaneous dangerous materials)
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Symbols	:	D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	:	A189 - Except where the defining criteria of another class or division are met, concentrations of formaldehyde solution: a. With less than 25 percent but not less than 10 percent formaldehyde, must be described as UN3334, Aviation regulated liquid, n.o.s; and b. With less than 10 percent formaldehyde, are not subject to this subchapter. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	:	155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No limit
DOT Vessel Stowage Location	•	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	:	No supplementary information available.
Transportation of Dangerous Goods		
Not applicable		

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

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.

Isocyanic acid, polymethylenepolyphenylene ester	CAS-No. 9016-87-9	50 – 75%
4,4'-diisocyanatodiphenylmethane	CAS-No. 101-68-8	30 – 50%

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Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).	
4,4'-diisocyanatodiphenylmethane (101-68-8)		
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	5000 lb	

15.2. International regulations

CANADA

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)
Listed on the Canadian DSL (Domestic Substances List)
4,4'-diisocyanatodiphenylmethane (101-68-8)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains no substance(s) listed on the REACH Candidate List

4,4'-diisocyanatodiphenylmethane (101-68-8)

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

National regulations

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
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 on INSQ (Mexican National Inventory of Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
4,4'-diisocyanatodiphenylmethane (101-68-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
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 on INSQ (Mexican National Inventory of Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

15.3. US 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

Component	State or local regulations
Isocyanic acid, polymethylenepolyphenylene ester(9016- 87-9)	U.S New Jersey - Right to Know Hazardous Substance List
4,4'-diisocyanatodiphenylmethane(101-68-8)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Full	text of hazard classes and H-statem	ents:
	H315	Causes skin irritation
	H317	May cause an allergic skin reaction
	H319	Causes serious eye irritation
	H332	Harmful if inhaled
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H335	May cause respiratory irritation

SDS US - ResinLab

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.