

SAFETY DATA SHEET

Date Prepared : 08/27/2012
 SDS No : URP 4106 Iso
 Date Revised : 05/20/2015
 Revision No : 1

IsoMold URP 4106 Iso (PAM S-333 Prepol)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: IsoMold URP 4106 Iso (PAM S-333 Prepol)

MANUFACTURER

Isotec® International, Inc.
 201 Longview Street
 Canton, GA 30114
Customer Service: 800-234-6300

24 HR. EMERGENCY TELEPHONE NUMBERS

Poison Control Center (Medical) : (877) 800-5553
CHEMTREC (US Transportation) : (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Inhalation), Category 2
 Skin Irritation, Category 2
 Eye Irritation, Category 2
 Respiratory Sensitization, Category 1
 Skin Sensitization, Category 1
 Target Organ Toxicity (Single exposure), Category 3
 Target Organ Toxicity (Repeated exposure), Category 2
 Carcinogenicity, Category 2

GHS LABEL



Health
hazard



Skull and
crossbones

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.
 H330: Fatal if inhaled.
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335: May cause respiratory irritation.
 H351: Suspected of causing cancer.
 H373: May cause damage to respiratory system through prolonged or repeated exposure.

PRECAUTIONARY STATEMENT(S)

Prevention:

P260: Do not breathe mist, vapors or spray.
 P264: Wash hands thoroughly after handling.



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P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves, protective clothing, eye protection and face protection.

P284: In case of inadequate ventilation wear respiratory protection.

Response:

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical attention.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

P308+P313: IF exposed or concerned: Get medical attention.

P314: Get medical attention if you feel unwell.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
TDI Prepolymer	55 - 65	60209-07-6
Paraffin waxes and Hydrocarbon waxes	15 - 25	63449-39-8
Distillates, petroleum, hydrotreated heavy naphthenic	10 - 15	64742-52-5
Polymeric diphenylmethane diisocyanate	4 - 6	9016-87-9
4,4'-Diphenylmethane diisocyanate	2 - 4	101-68-8
Toluene diisocyanate mixed isomers	2 - 4	26471-62-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Remove contact lenses, if present. Seek medical attention if irritation persists.

SKIN: Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Seek medical attention if rash or irritation occurs.

INGESTION: Give one or two glasses of water to drink. Never give anything by mouth to an unconscious person. Obtain immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Move person to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. Obtain medical attention. Symptoms can be delayed for several hours.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water fog, foam, dry chemical or carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.

EXPLOSION HAZARDS: Water contamination produces carbon dioxide gas. This may cause pressurization or explosion of containers.

FIRE FIGHTING EQUIPMENT: Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled product. Absorb with dry chemical absorbent, earth, sand or any other inert material. Place in a chemical waste container. Allow to stand uncovered 48 hours before closing container.



LARGE SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled product. Create a dike or trench to contain product. Prevent entry into waterways, sewers, basements or confined areas. Absorb with dry chemical absorbent, earth, sand or any other inert material. Place in a chemical waste container. Allow to stand uncovered 48 hours before closing container.

GENERAL PROCEDURES: Clean spill area with a decontamination solution. Suggested formulation: Sodium carbonate (5 - 10%), liquid detergent (1 - 2%), water (88 - 94%). Alternate formulation: Concentrated ammonia (3 - 8%), liquid detergent (1 - 2%), water (90 - 96%). Ensure adequate ventilation to prevent overexposure of ammonia.

SPECIAL PROTECTIVE EQUIPMENT: Wear protective equipment listed in Section 8.

7. HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or on clothing. Wash hands before eating, drinking or smoking. Do not breathe vapors or mists. Use only with adequate ventilation. Keep container closed when not in use. Do not reseal if contaminated. Keep away from heat and flame.

STORAGE: Store in tightly closed containers in a cool, dry and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight. Keep containers tightly sealed.

STORAGE TEMPERATURE: 4.4°C (40°F) Minimum to 37.8°C (100°F) Maximum

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Distillates, petroleum, hydrotreated heavy naphthenic	TWA		5 oil mist		5 oil mist
4,4'-Diphenylmethane diisocyanate	TWA	0.02 Ceiling	0.20 Ceiling	0.005	0.051
Toluene diisocyanate mixed isomers	TWA	0.005		0.005	
	STEL	0.02		0.02	

ENGINEERING CONTROLS: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminants.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear a face shield and chemical safety glasses or goggles.

SKIN: Wear impervious gloves. Cover exposed skin.

RESPIRATORY: For airborne exposure above the permissible exposure limit(s), wear a NIOSH approved air-purifying respirator equipped with organic vapor cartridges. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator.

WORK HYGIENIC PRACTICES: Avoid eating, drinking or smoking while using this material. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slightly musty.

APPEARANCE: Brown liquid.



IsoMold URP 4106 Iso (PAM S-333 Prepol)

FLASH POINT AND METHOD: > 93.3°C (200°F) Closed cup.**AUTOIGNITION TEMPERATURE:** Not established.**VAPOR PRESSURE:** < 0.014 hPa at 20°C (68°F)**VAPOR DENSITY:** Heavier than air.**BOILING POINT:** > 204.4°C (400°F)**FREEZING POINT:** Not established.**SOLUBILITY IN WATER:** Insoluble, reacts with water.**SPECIFIC GRAVITY:** 1.08 (water = 1) at 23.3°C (74°F)**10. STABILITY AND REACTIVITY****HAZARDOUS POLYMERIZATION:** Can be caused by elevated temperatures.**STABILITY:** Stable.**CONDITIONS TO AVOID:** Moisture and high temperatures.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides, nitrogen oxides, isocyanates and trace amounts of hydrogen cyanide.**INCOMPATIBLE MATERIALS:** Water, amines, oxidizers, alcohols and strong bases.**11. TOXICOLOGICAL INFORMATION****ACUTE**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Polymeric diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	310 mg/m ³ /4h
4,4'-Diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	0.49 mg/L/4h (respirable aerosol)
Toluene diisocyanate mixed isomers	5110 mg/kg	> 9400 mg/kg	0.48 mg/L/1h

CARCINOGENICITY**IARC:** Toluene diisocyanate: 2B - Possibly carcinogenic to humans.**NTP:** Toluene diisocyanate is reasonably anticipated to be a human carcinogen**OSHA:** Not regulated as a carcinogen.**SENSITIZATION:** This material is a skin and respiratory sensitizer.**12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION:** MDI: LC₅₀ (Brachydanio rerio) >500 mg/L/24h; EC₅₀ (Daphnia magna) 7060 mg/L/24h;
TDI: LC₅₀ (Oncorhynchus) 133 mg/L/96h; EC₅₀ (Daphnia magna) 12.5 mg/L/48h**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:** Dispose in accordance with local, state, provincial or national regulations.

EMPTY CONTAINER: Decontaminate and pass to an approved drum recycler or destroy.

RCRA/EPA WASTE INFORMATION: If discarded in its purchased form, this material is not a RCRA hazardous waste.

GENERAL COMMENTS: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured into drains, sewers or waterways.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated when shipped below RQ.

AIR (ICAO/IATA)

SHIPPING NAME: Not regulated when shipped below RQ.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not regulated when shipped below RQ.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute, Chronic, Reactive.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS	Comments
Polymeric diphenylmethane diisocyanate	4 - 6	9016-87-9	Diisocyanates category
4,4'-Diphenylmethane diisocyanate	2 - 4	101-68-8	Diisocyanates category
Toluene diisocyanate mixed isomers	2 - 4	26471-62-5	

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
4,4'-Diphenylmethane diisocyanate	2 - 4	5000 lbs.
Toluene diisocyanate mixed isomers	2 - 4	100 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are in TSCA inventory.

RCRA STATUS: If discarded in its purchased form, this material is not a RCRA hazardous waste.

NATIONAL RESPONSE CENTER: Any spill or release to the environment above the RQ must be reported to the National Response Center (800-424-8802).

16. OTHER INFORMATION

PREPARED BY: L. Priest **Date Revised:** 05/20/2015

COMMENTS:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
EC ₅₀	Median effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC ₅₀	Lethal concentration to 50% of exposed laboratory animals
LD ₅₀	Lethal dose to 50% of exposed laboratory animals
TWA	Time-weighted average
TLV	Threshold limit value
NIOSH	US National Institute of Occupational Safety and Health
NE	Not established
NTP	US National Toxicology Program
OEL	Occupational exposure limit
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
STEL	Short term exposure limit

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SAFETY DATA SHEET

Date Prepared : 08/27/2012
 SDS No : URP 4106 Pol
 Date Revised : 05/20/2015
 Revision No : 1

IsoMold URP 4106 Pol (PAM S-333 Cur)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: IsoMold URP 4106 Pol (PAM S-333 Cur)

MANUFACTURER

Isotec® International, Inc.
 201 Longview Street
 Canton, GA 30114
Customer Service: 800-234-6300

24 HR. EMERGENCY TELEPHONE NUMBERS

Poison Control Center (Medical) : (877) 800-5553
CHEMTREC (US Transportation) : (800) 424-9300

2. HAZARDS IDENTIFICATION

COMMENTS: Not hazardous according to GHS criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Polypropylene glycol	60 - 80	25322-69-4
Calcined Kaolin	20 - 40	66402-68-4
Amorphous Fumed Silica	< 1.5	112945-52-5
Organic mercury	< 0.6	94070-93-6

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water.

SKIN: Wash with soap and water.

INGESTION: Give one or two glasses of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Move person to fresh air.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water fog, water spray, foam, dry chemical or carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: Carbon oxides.

FIRE FIGHTING EQUIPMENT: Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled product. Absorb with dry chemical absorbent, earth, sand or any other inert material. Place in a chemical waste



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container.

LARGE SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Do not walk through or otherwise scatter spilled product. Create a dike or trench to contain product. Prevent entry into waterways, sewers, basements or confined areas. Absorb with dry chemical absorbent, earth, sand or any other inert material. Place in a chemical waste container.

SPECIAL PROTECTIVE EQUIPMENT: Wear protective equipment listed in Section 8.

7. HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or on clothing. Wash hands before eating, drinking or smoking. Keep container closed when not in use. Do not reseal if contaminated. Keep away from heat and flame.

STORAGE: Store in a cool, dry and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight.

STORAGE TEMPERATURE: 4.4°C (40°F) Minimum to 37.8°C (100°F) Maximum

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
				EXPOSURE LIMITS			
				OSHA PEL		ACGIH TLV	
Chemical Name				ppm	mg/m ³	ppm	mg/m ³
Amorphous Fumed Silica				TWA		0.8 Total dust	
Organic mercury				TWA		0.1	0.1 Skin

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear a face shield and chemical safety glasses or goggles.

SKIN: Wear impervious gloves. Cover exposed skin.

RESPIRATORY: None required in normal use.

WORK HYGIENIC PRACTICES: Avoid eating, drinking or smoking while using this material. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Mild.

APPEARANCE: Viscous liquid of various colors.

FLASH POINT AND METHOD: > 93.3°C (200°F) Closed cup.

AUTOIGNITION TEMPERATURE: Not established.

BOILING POINT: > 170.6°C (285°F)

FREEZING POINT: Not established.

SOLUBILITY IN WATER: Negligible.

SPECIFIC GRAVITY: 1.22 (water = 1) at 23.3°C (74°F)

10. STABILITY AND REACTIVITY



IsoMold URP 4106 Pol (PAM S-333 Cur)

HAZARDOUS POLYMERIZATION: Will not occur.**STABILITY:** Stable.**CONDITIONS TO AVOID:** Moisture and high temperatures.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides.**INCOMPATIBLE MATERIALS:** Strong oxidizers.**11. TOXICOLOGICAL INFORMATION****ACUTE**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Polypropylene glycol	> 2000 mg/kg		
Amorphous Fumed Silica	> 5000 mg/kg	> 5000 mg/kg	> 0.139 mg/L/4h

CARCINOGENICITY**IARC:** Not regulated as a carcinogen.**NTP:** Not regulated as a carcinogen.**OSHA:** Not regulated as a carcinogen.**12. ECOLOGICAL INFORMATION****COMMENTS:** No data.**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:** Dispose in accordance with local, state, provincial or national regulations.**EMPTY CONTAINER:** Decontaminate and pass to an approved drum recycler or destroy.**RCRA/EPA WASTE INFORMATION:** If discarded in its purchased form, this material is not a RCRA hazardous waste.**GENERAL COMMENTS:** The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured into drains, sewers or waterways.**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Not regulated.**AIR (ICAO/IATA)****SHIPPING NAME:** Not regulated.**VESSEL (IMO/IMDG)****SHIPPING NAME:** Not regulated.**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

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311/312 HAZARD CATEGORIES: Chronic.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS	Comments
Organic mercury	< 0.6	94070-93-6	Mercury compounds

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Organic mercury	< 0.6	None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are in TSCA inventory.

RCRA STATUS: If discarded in its purchased form, this material is not a RCRA hazardous waste.

16. OTHER INFORMATION

PREPARED BY: L. Priest **Date Revised:** 05/20/2015

COMMENTS:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
EC ₅₀	Median effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC ₅₀	Lethal concentration to 50% of exposed laboratory animals
LD ₅₀	Lethal dose to 50% of exposed laboratory animals
TWA	Time-weighted average
TLV	Threshold limit value
NIOSH	US National Institute of Occupational Safety and Health
NE	Not established
NTP	US National Toxicology Program
OEL	Occupational exposure limit
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
STEL	Short term exposure limit

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