SAFETY DATA SHEET

IsoMold UMR 411 Pol

Section 1: Product and Company Identification

Product Name: IsoMold UMR 411 Pol

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

24 Hour Emergency Telephone Numbers:
Poison Control Center (Medical): 877-800-5553
ChemTel: United States 800-255-3924 * International 1-813-248-0585

Section 2: Hazards Identification

GHS Classifications

Health:
Skin Irritation, Category 2
Eye Irritation, Category 2
Target Organ Toxicity (Repeated Exposure), Category 2

GHS Label


Exclamation mark


Health

Signal Word: Warning.

Hazard Statements

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H373: May cause damage to pancreas through prolonged or repeated exposure.

Precautionary Statements

Prevention:
P260: Do not breathe fume, mist, vapors, and spray.
P264: Wash skin thoroughly after handling.
P280: Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P332+P313: If skin irritation occurs: Get medical advice.
P362+P364: Take off immediately all contaminated clothing and wash before reuse.
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.
P314: Get medical advice if you feel unwell.

Section 3: Composition/Information on Ingredients

Component	% (weight)	Product Identifier
Diethylmethylbenzenediamine	4-6	CAS No. 68479-98-1
1-Hexadecanamine, N,N-dimethyl-	2-3	CAS No. 112-69-6

Section 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 advice if irritation occurs.

Ingestion: If person is conscious, wash out mouth with water. Do not induce vomiting unless instructed to do so by a poison center or physician.

Inhalation: Move person to fresh air.

Section 5: Firefighting Measures

Extinguishing Media: Water fog, foam, dry chemical, or carbon dioxide.

Hazardous Combustion Products: Carbon oxides.

Fire Fighting Procedures: Use water spray to cool fire-exposed containers.

Fire Fighting Equipment: Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

Section 6: Accidental Release Measures

Personal Protection: Wear protective equipment listed in Section 8.

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.

Large Spill: Same procedure as for a small spill. Prevent entry into waterways, sewers, basements, or confined areas.

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

Storage Temperature: Minimum 12.8 - 15.5 °C (55 - 60 °F)

Section 8: Exposure Controls/Personal Protection

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.

Section 9: Physical and Chemical Properties

Appearance	Liquid of various colors.
Odor	Mild.
Autoignition Temperature	Not established.
Freezing Point	Not established.
Boiling Point	Not established.
Flash Point (Closed Cup)	> 93.3°C (200°F)
Solubility in water	Partial.
Specific Gravity (water = 1)	Not established.
Viscosity (centipoise)	Not established.

Section 10: Stability and Reactivity

Stability: Stable.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Carbon oxides and sulfur oxides.

Incompatible Materials: Strong oxidizers.

Section 11: Toxicological Information

Acute:

Component	Oral LD_{50} (rat)	Dermal LD_{50} (rabbit)
Diethylmethylbenzenediamine	737 mg/kg	> 2000 mg/kg
1-Hexadecanamine, N,N-dimethyl-	1015 mg/kg	4400 mg/kg

Carcinogenicity:

IARC: Not regulated as a carcinogen.
NTP: Not regulated as a carcinogen.
OSHA: Not regulated as a carcinogen.

Section 12: Ecological Information

Ecotoxicological Information:

Diethylmethylbenzenediamine: EC_{50} (Daphnia magna) 0.5 mg/l/48h

Section 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.

Section 14: Transport Information

U.S. DOT: Not regulated.
ICAO/IATA: Not regulated.
IMO/IMDG: Not regulated.

Section 15: Regulatory Information

United States

311/312 Hazard Categories: Acute, Chronic.

313 Reportable Components: None.

CERCLA (Comprehensive Environmental Response and Liability Act) None.

TSCA (Toxic Substances Control Act): All components are in TSCA inventory**.**

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

Section 16: Other Information

Date Issued: September 17, 2015
Revised: May 20, 2021 Rev #2

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Abbreviations and Acronyms:

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
U.S. DOT	United States Department of Transportation

SAFETY DATA SHEET

IsoMold UMR 411 Iso

Section 1: Product and Company Identification

Product Name: IsoMold UMR 411 Iso

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

24 Hour Emergency Telephone Numbers:
Poison Control Center (Medical): (877) 800-5553
ChemTel: United States 800-255-3924 * International 1-813-248-0585

Section 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
Carcinogenicity, Category 1
Reproductive Toxicity, Category 1
Target Organ Toxicity, Repeated Exposure, Category 1

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.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to adrenal, bone marrow, kidneys, liver, lymphatic system, stomach, and thymus through prolonged or repeated exposure.

Precautionary Statements

Prevention:

P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe mist, vapors, and spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink, or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
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.
P362: Take off contaminated clothing.
P333+P313: If skin irritation or rash occurs: Get medical attention.
P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P310: Immediately call a POISON CENTER or physician.
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 advice if you feel unwell.

Section 3: Composition/Information on Ingredients

Component	% (weight)	Product Identifier
TDI Prepolymer	65-75	CAS No. 9057-91-4
Light paraffinic petroleum oil solvent extract	5-15	CAS No. 64742-05-8
Toluene diisocyanate mixed isomers	≤ 5	CAS No. 26471-62-5

Section 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 irritation or rash occurs.

Ingestion: If person is conscious, wash out mouth with water. Do not induce vomiting. Seek immediate medical attention.

Inhalation: Move person to fresh air. Get medical attention. Symptoms may be delayed for several hours.

Section 5: Firefighting 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.

Section 6: Accidental Release Measures

Personal Protection: Wear protective equipment listed in Section 8.

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. Place in a chemical waste container.

Large Spill: Same procedure as for a small spill. Prevent entry into waterways, sewers, basements, or confined areas. Allow to stand uncovered 48 hours before closing the waste container.

Comment: Avoid using earth, sand, and clay as an absorbent as these can be wet. Isocyanates react with water to form carbon dioxide. Carbon dioxide functions as a blowing agent, causing the product to foam. Allow the waste container to stand uncovered 48 hours before closing. Reaction with water can be slow. Build-up of carbon dioxide in a closed container can rupture the 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.

Section 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 cool, dry, and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight.

Storage Temperature: 15.5 °C (60 °F) to 37.7 °C (100 °F)

Section 8: Exposure Controls/Personal Protection

Exposure limits:

Component	CAS No.	OSHA/PEL	ACGIH/TLV
Light paraffinic petroleum oil solvent extract	64742-05-8	5 mg/m^3	5 mg/m^3 (inhalable fraction)
Toluene diisocyanate mixed isomers	26471-62-5	0.02 ppm Ceiling	0.001 ppm 0.005 ppm STEL

Engineering Controls: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminates.

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 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.

Section 9: Physical and Chemical Properties

Appearance	Dark liquid.
Odor	Slightly pungent.
Autoignition Temperature	Not established.
Freezing Point	Not established.
Boiling Point	Not established.
Flash Point (Closed Cup)	Not established.
Vapor Pressure	< 0.014 hPa at 20°C (68°F)
Vapor Density (air = 1)	Heavier than air.
Solubility in water	Insoluble.
Specific Gravity (water = 1)	Not established.
Viscosity (centipoise)	Not established.

Section 10: Stability and Reactivity

Stability: Stable.

Hazardous Polymerization: Can be caused by elevated temperatures.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, isocyanates, and trace amounts of hydrogen cyanide.

Incompatible Materials: Water, amines, oxidizers, alcohols, and strong bases.

Section 11: Toxicological Information

Acute:

Component	Oral LD_{50} (rat)	Dermal LD_{50} (rabbit)	Inhalation LC_{50} (rat)
Toluene diisocyanate mixed isomers	6170 mg/kg	> 16000 mg/kg	0.1 mg/l/4h

Carcinogenicity:

IARC: Light paraffinic petroleum oil solvent extract is regulated as Group 1. Toluene diisocyanate is Group 2B - Possibly carcinogenic to humans.
NTP: Toluene diisocyanate is reasonably anticipated to be a human carcinogen.
OSHA: Not regulated as a carcinogen.

Section 12: Ecological Information

Ecotoxicological Information:

Toluene diisocyanate: LC_{50} (Oncorhynchus) 133 mg/l/96h; EC_{50} (Daphnia magna) 12.5 mg/l/48h

Section 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.

Section 14: Transport Information

U.S. DOT: Not regulated when shipped below reportable quantity.
ICAO/IATA: Not regulated when shipped below reportable quantity.
IMO/IMDG: Not regulated when shipped below reportable quantity.

Section 15: Regulatory Information

United States

SARA Title III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories: Acute, Chronic, Reactive.

313 Reportable Components:

Component	CAS No.
Toluene diisocyanate mixed isomers	26471-62-5

CERCLA (Comprehensive Environmental Response and Liability Act)

Component	RQ (lbs)
Toluene diisocyanate mixed isomers	100

TSCA (Toxic Substances Control Act): 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).

Section 16: Other Information

Date Issued: September 17, 2015
Revised: May 20, 2021 Rev #3

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LC_{50}	Lethal concentration to 50% of exposed laboratory animals
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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
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