

# SAFETY DATA SHEET

Anchor-Seal, Inc.

Polyurethane Prepolymer

## 1. Identification

**1.1 Product Name: U2070D, Part A ISO**

**1.2 Recommended Use:** Component of a Polyurethane System. Casting, Sealing and Encapsulation.

**Issue Date:** 1/27/14

**Supersedes:** 10/28/10

**Reason for revision:** New format

**1.3 Manufacturer:**

Anchor-Seal, Inc.  
54 Great Republic Drive  
Gloucester, MA 01930  
PH: (978) 515-6004  
FAX: (978) 515-6008  
Email: sales@anchorseal.com

**1.4 In Case of Emergency: INFOTRAC: 1-800-535-5053**

Outside the US and Canada, call 1-352-323-3500

## 2. Hazards Identification

**2.1 OSHA/HCS status: This material is considered hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).**

**Classification: Warning:** Harmful by inhalation. Irritating to the eyes and respiratory tract. May cause eye and skin irritation and is a potential respiratory sensitizer. The onset of respiratory symptoms may be delayed for several hours after exposure. Do not breathe vapor or mist. Reacts slowly with water to produce carbon dioxide which may rupture closed containers.

**Skin contact:** Prolonged or repeated exposure may cause skin irritation; may cause skin sensitization by skin contact. Wash thoroughly after handling.

**Eye contact:** Avoid contact with the eyes. May cause irritation; corneal injury is unlikely.

**Ingestion:** Single dose oral toxicity is considered to be very low; ingestion of a small amount is not expected to be harmful.

**Inhalation:** Over exposure to vapors is considered unlikely due to the physical properties of the material.

**2.1 Classification according to (DSD Directive) EC No. 1272/2008 (CLP/GHS)**

**Symbol:** Xi, Skin and respiratory irritant. Respiratory sensitizer.

**R phrases:** R36/37/38 Irritating to eyes, respiratory system and skin.  
R43 May cause sensitization by skin contact.

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## 2.2 Label Elements according to EC 1272/2008

Hazard pictograms:



Signal word: **Warning**

## 2.3 Hazard statements:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H320 Causes eye irritation.

## 2.4 Precautionary statements:

- P264 Wash thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / protective clothing / eye protection / face protection.
- P302 + P352 **IF ON SKIN:** Wash with plenty of soap and water.
- P333 + P313 If skin irritation or rash occurs: Get medical advice / attention.

**Contains:** Diphenylmethane 4,4'-diisocyanate

**See toxicological information (Section 11)**

**GENERAL INFORMATION:** Read the entire SDS for a more thorough evaluation of the hazards.

## 3. Composition Information on Ingredients

	<u>Name</u>	<u>CAS number</u>
3.1 Substances	Diphenylmethane 4,4'-diisocyanate	101-68-8
3.2 Mixture:	Concentration of composition has been withheld as a trade secret.	

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## **4. First Aid Measures**

**4.1 Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of running tepid water for 15 minutes, occasionally lifting the upper and lower eyelids. If effects occur get medical attention immediately.

**Skin contact:** Wash immediately with warm soapy water. Corn oil may be more effective than soap and water. Get medical attention if irritation develops. Wash clothing before re-use. Discard personal items that cannot be decontaminated.

**Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately. Loosen clothing such as collar, tie, belt or waistband.

**Ingestion:** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Notes to Physician:** No specific treatment. Treat symptomatically. Call poison control center if large quantities have been ingested.

## **4.2 Symptoms of exposure:**

**Eye contact:** Irritation and redness, pain.

**Skin contact:** Irritation, redness, itching.

**Inhalation:** Dizziness, difficulty breathing if fumes are highly concentrated.

**Ingestion:** May cause irritation.

## **5. Fire-Fighting Measures**

**NFPA Flammable classification:** Combustible liquid IIIB

**Flash point:** >110°C (230°F) closed cup (Setaflash)

### **5.1 Extinguishing Media**

**Suitable:** Water fog, carbon dioxide, foam, dry chemical.

**Not Suitable:** None

**5.2 Special hazards:** Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN

**5.3 Special protective actions for fire fighters:** Use protective fire fighting clothing and positive pressure self-contained breathing apparatus (SCBA) to protect against potential harmful and/or irritating fumes. Do not use high volume water jet as this may spread the area of the fire.

## **6. Accidental Release Measures**

**6.1 Personal precautions:** Isolate area; keep unnecessary and unprotected personnel away from spill area. Avoid contact with skin, eyes and clothing. Use appropriate safety equipment. No health effects expected from the cleanup of this material if contact can be avoided.

**6.2 Environmental precautions:** Avoid disposal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**6.3 Methods for cleaning up:** Contain and absorb large spills with an inert, non-flammable absorbent carrier (such as earth, sand or clay). Shovel into labeled open-top drums or plastic bags for further decontamination if necessary. Wash the spillage area clean with liquid decontaminant. (See section 13 for disposal considerations). Notify applicable government authorities if release is reportable.

CERCLA RQ for 4,4-MDI is 5,000 lbs.

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## 7. Handling and Storage

**7.1 Precautions for safe handling:** Avoid personal contact with the product. Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded. Regularly monitor the efficiency of the ventilation system. Avoid breathing aerosols, mists and vapors. (See section 8 Exposure control for details). Keep stocks of de-contaminant readily available.

**7.2 Storage:** Keep containers tightly closed and store in a cool, dry well ventilated area.

## 8. Exposure controls/personal protection

**8.1 Exposure parameters:** Diphenylmethane 4,4'-diisocyanate: ACGIH TLV TWA: 0.005 ppm 8 hour(s). OSHA PEL CEIL: 0.02 ppm CEIL: 0.2 mg/m<sup>3</sup>

**8.2 Engineering controls:** Ventilation through local exhaust if appropriate.

**Eye/face protection:** Safety glasses, goggles, face mask as appropriate.

**Skin & hand protection:** Protective clothing as necessary to guard against product contact. PVC, neoprene or nitrile rubber gloves, safety shoes.

**Respiratory protection:** Not needed under normal use conditions under adequate ventilation.

**Other protective equipment:** Eye wash stations and emergency showers should be available. The type and degree of personal protective equipment will depend on the specific work operation.

**8.3 Environmental exposure controls:** See Exposure parameters.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties.

<b>Appearance</b>	: Liquid
<b>Color</b>	: Clear or tinted
<b>Type of odor</b>	: Slight musty
<b>Vapor pressure</b>	: 0.53 kPa (4 mm Hg) 20C
<b>Vapor density</b>	: 8.5 (air=1)
<b>Boiling point</b>	: >300°C
<b>Auto-ignition temperature</b>	: >600°C
<b>Specific gravity</b>	: 1.10-1.14 grams / cc
<b>Water solubility</b>	: Insoluble
<b>pH</b>	: No data

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## 10. Stability and Reactivity

**10.1 Reactivity:** Reacts with water producing carbon dioxide gas. Exothermic reaction with materials containing active hydrogen groups.

**10.2 Stability:** Stable at room temperature.

**10.3 Hazardous polymerization:** May occur under certain conditions of storage and use..

**10.4 Conditions to avoid:** Water, alcohol, amines, bases and acids.

**10.5 Incompatible materials:** See conditions to avoid.

**10.6 Hazardous decomposition products:** Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN.

## 11. Toxicological Information

**11.1 Acute oral toxicity:** LD50 (rat): >10,000 mg/kg.

**Acute dermal toxicity:** LD50 (rabbit) >9,000 mg/kg (irritating to the skin)

**Acute inhalation toxicity:** LC50 (rat) 0.49 mg/L 4 hours

## 12. Ecological Information

**12.1 Toxicity** (ecotoxicity effects) low toxicity to aquatic organisms on an acute basis. EC50 >1000 mg/L in 48 hours (Daphnia) and 96 hours fish.

**12.2 Persistence and degradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

## 13. Disposal Considerations

**13.1 Waste treatment methods:** Do not dump into any sewers, on the ground, or into any body of water. Significant quantities of waste product residues should be processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local requirements.

**Container disposal:** Drain container of all residual material prior to disposal.

## 14. Transport Information Shipping name: Not regulated

**14.1 DOT Bulk and Non-Bulk:** Not regulated in single containers less than 5,000 lbs.

**14.2 TDG Classification:** Not regulated

**14.2 IMDG Class:** Not regulated

**14.3 IATA-DGR Class:** Not regulated

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## 15. Regulatory Information

### **15.1 Safety health and environmental regulations/legislation:**

HCS Classification: Toxic material, irritant, sensitizer.

SARA Title III Section 302/304/311/312 (40CFR370): No ingredient listed.

CERCLA Status (40CFR302): RQ: 5,000 lbs.

TSCA Inventory status: None.

Canadian DSL Status: Reported/included.

Canadian WHMIS Classification: Class D-2A, D-2B: Material causing other toxic effects (very toxic).

OSHA/NTP/IARC Carcinogen Status: Not listed.

**Chemicals known to the state of California to cause Cancer or reproductive toxicity:** None

**Pennsylvania (Worker and Community Right-to-Know Act): Hazardous Substances List and/or**

**Environmental Hazardous Substance List and/or Special Hazardous Substance List:** No components listed.

**Risk phrases:** R36/38 Irritating to the eyes and skin.

R43 May cause sensitization by skin contact.

R52/53 May cause long term adverse effects in the aquatic environment.

Safety phrases: S3/7/9 Keep container tightly closed in a cool, well-ventilated place.

S24/25 Avoid contact with the skin and eyes.

S28 After contact with skin, wash immediately with plenty of soapy water.

S37/39 Wear suitable gloves and eye/face protection.

S61 Avoid release to the environment. Refer to special instructions/SDS.

## 16. Other Information

**HMIS/NFPA rating:** Health: 2 Fire: 1 Reactivity: 1 Personal Protection: H

**Label requirements:** Harmful by inhalation. Irritating to the eyes and respiratory system. May cause sensitization by inhalation and skin contact. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. (Personal protective equipment selection is best assigned by the user after performing a hazard assessment on the product as it is to be used in the specific work process).