

# Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

# U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



<b>IDENTITY</b> Hydromer AFC Solution #2009-68-2A	<b>Product Code: 2IKS03</b>
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## Section I

Manufacturer's Name <b>Hydromer, Inc.</b>	Emergency Telephone Number DAY OR NIGHT (CHEMTREC) <b>(800)-424-9300</b>
Address (Number, Street, City, State, and ZIP Code) <b>35 Industrial Parkway</b>	For International Shipments call collect <b>(703)-527-3887</b>
<b>Branchburg, NJ 08876</b>	Telephone Number for Information <b>(908) 526-2828</b>
*This material has been classified as an EPCRA 313 Chemical and is subject to Section 313 reporting req	Date Prepared <b>9/13/2006</b>

## Section II - Ingredients/Identity Information

Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
*Cyclohexane CAS#110-82-7	300 ppm	300 ppm		
Diacetone Alcohol CAS# 123-42-2	50 ppm	50 ppm		

This Product is a class III composition of resins and organic solvents  
with a flashpoint of 101° F

HMIS	
Health	1
Flammability	2
Reactivity	0
PPE	E

## Section III - Physical/Chemical Characteristics

Boiling Point	139-172 C	Specific Gravity (H2O = 1)	0.905-0.915
Vapor Pressure (mm Hg)	unknown	Melting Point	unknown
Vapor Density (AIR = 1)	unknown	Evaporation rate (Butyl Acetate = 1)	unknown
Solubility in Water	None		
Appearance and Odor	Yellow, viscous liquid.		

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) tcc 101 F	Flammable Limits NA	LEL NA	UEL NA
Extinguishing Media	Dry Chemical; Foam; CO2. Water may be ineffective.		
Special Firefighting Procedures	Full emergency equipment with self-contained breathing apparatus and full protective		
Unusual Fire and Explosion Hazards	Clothing should be worn. Fight as flammable liquid fire. Use water to keep containers cool. Keep away from heat, sparks and open flame.		

**Section V - Reactivity Data**

Stability	Unstable		Conditions to Avoid <b>Heat flames and strong oxidizing agents.</b>
	Stable	<b>X</b>	

Incompatibility (Materials to Avoid)

**Strong oxidizing agents.**

Hazardous Decomposition or Byproducts

**By heat and fire: CO, CO2 and oxides of Nitrogen.**

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	<b>X</b>	

**Section VI - Health Hazard Data**

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	<b>X</b>	<b>X</b>	<b>X</b>

Health Hazards (Acute and Chronic)

**Vapors or mist may cause irritation, vomiting, dizziness, headache, nausea, fatigue, irritation of respiratory system, GI irritation, CNS depression. May be accompanied by coughing, choking or labored breathing. May cause skin and eye discomfort by defatting**

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Signs and Symptoms of Exposure

**Skin contact may cause local redness. Eye contact may cause redness or swelling of conjunctiva.****Swallowing or inhalation may cause headache, vomiting, diarrhea, dizziness, drowsiness, nausea.**

Medical Conditions

**Skin or eye disorders and respiratory system disease.**

Emergency and First Aid Procedure

**Remove patient to fresh air. Administer oxygen or****artificial respiration. Obtain medical attention. EYES: Flush with water for 15 minutes.****Obtain medical attention. SKIN: Wash with soap and water.****Section VII - Precautions for Safe Handling and Use**

Steps to be Taken in Case Material is Released or Spilled

**Evacuate personnel. Remove all ignition sources and ventilate. Notify appropriate****authorities if necessary. Wear personal protective equipment. Dike or impound spill.****Collect large spills for disposal. Extinguish any ignition source until area is safe.**

Waste Disposal Method

**Dispose in accordance with federal, state and local regulations.**

Precautions to be Taken in Handling and Storage

**Store at moderate temperatures, in tight containers.****Keep away from heat, flame and sparks.**

Other Precautions

**Vapors may be ignited by static sparks. Use proper bonding and grounding during liquid****transfer as described in National Fire Protection Association document NFPA 77.****Section VIII - Control Measures**

Respiratory Protection (Specify Type)

**Self-contained breathing apparatus in high vapor concentrations.**

Ventilation	Local Exhaust	Special
	Mechanical (General) <b>X</b>	Other

Protective Gloves

**Wear Neoprene gloves.**

Other Protective Clothing or Equipment

**Eye bath, safety shower and protective clothing.**

Work/Hygenic Practices

**Wear safety glasses.**

# EUROPEAN MATERIAL SAFETY DATA SHEET:

<b>Hydromer Inc.</b>	35 Industrial Parkway, Branchburg, NJ 08876 USA
Emergency Telephone	(800) 424-9300 United States / Outside US call (703) 527-3887
Technical Information	(908) 526-2828 Facsimile (908) 526-3633
Date: 5/05/2008	

## SECTION 1 PRODUCT IDENTIFICATION

Product Name: **Hydromer Anti-Fog Coating Solution # 2009-68-2B  
(AKA: 2266-188B , 2098-SG61B)**

Chemical Name: Aliphatic Polyisocyanate / Solvent mixture

Synonyms: Polymeric Hexamethylene Dioscyanate / MIBK mixture

Chemical Family: Aliphatic Polyisocyanate / Solvent mixture

## SECTION 2 COMPOSITION AND INGREDIENTS

<u>INGREDIENT</u>	<u>CAS #</u>	<u>EINECS #</u>
Polymeric Diisocyanate	28182-81-2	
Methyl Isobutyl Ketone	108-10-1	203-550-1

## SECTION 3 IDENTIFICATION OF POTENTIAL HAZARDS

General: Flammable, avoid contact with eyes and skin and avoid breathing vapors.  
Keep away from heat, sparks, flame, moisture and amines

Skin Contact: Frequent or prolonged contact may irritate and cause dermatitis.

Eye Contact: Irritating and potentially harmful, avoid contact with eyes

Inhalation: Avoid breathing vapor

## SECTION 4 FIRST AID MEASURES

Ingestion – do NOT induce vomiting; give one to two cups of milk or water to drink. Never give anything by mouth to an unconscious or convulsing person. Immediately call a physician.

Inhalation – if inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact – in case of contact wash skin with soap and water, remove contaminated clothing immediately, for severe exposures get under a safety shower and seek medical attention

Eye contact – in case of eye contact, immediately flush with plenty of water for at least 15 minutes. Refer person to a physician or ophthalmologist for immediate follow up.

## **SECTION 5 FIRE FIGHTING MEASURES**

Fire extinguishing media, use water spray, alcohol foam, dry chemical, or carbon dioxide.

Firefighters should wear self contained breathing apparatus. Evacuate non essential personnel.

During a fire HDI vapors and other irritating, highly toxic gases may be generated by thermal

Decomposition or combustion. Closed container may explode when exposed to extreme heat.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

Evacuate non essential personnel and remove any potential sources of ignition.

Ventilate area and use water spray to reduce vapors. Dike or impound spilled material. Pour a solution of Union Carbides Tergitol TMN-10 (20%) and water or use a solution comprised of 93% water, 6% concentrated ammonia, and 2% detergent.

Take up with sand or other non-combustible absorbent material and place into container for later disposal. Dispose of with accordance to all applicable environmental regulations.

## **SECTION 7 HANDLING AND STORAGE**

Store in a dry, well-ventilated, flammable liquid storage area or cabinet.

Maximum temperature 50° C. Shelf life (unopened container) is 12 months. A nitrogen blanket is recommended for opened containers. If container is exposed to extreme heat it can be Pressurized and possibly rupture explosively.

## **SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Use protective equipment (gloves, safety glasses, respirator, and clothing) when handling. Use only in a well ventilated area.

## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Melting Point:	NA
Boiling Point:	237 – 243 F (Methyl Isobutyl Ketone)
Specific gravity:	< 1
Flash Point {Closed Cup}	61° F {16.1° C}
Auto ignition Temp:	858° F {448 ° C (Methyl Isobutyl Ketone)}
Flammable limits:	LEL 1.2 UEL 8.0 (Methyl Isobutyl Ketone)
Appearance and Odor:	Clear, colorless liquid with a characteristic odor
Solubility in Water:	Insoluble slowly reacts with water to liberate CO2 gas.

## SECTION 10 STABILITY AND REACTIVITY

Indefinitely stable when stored in a cool, dark, dry environment. Hazardous polymerization may occur; keep away from moisture, amines, strong bases, alcohols, metal compounds and surface active ingredients.

## SECTION 11 TOXICOLOGICAL INFORMATION

Eye Effects: Severe irritant capable of causing corneal injury  
Oral Toxicity: ***Toxic- Do not ingest***  
Skin Irritation: ***May cause some irritation***  
Mucous Membrane: ***May cause some irritation***  
Mutagenicity: ***N/A***  
Sensitization: possible  
Photo irritation: ***N/A***

## SECTION 12 ECOLOGICAL INFORMATION

Fish Toxicity: Not available

## SECTION 13 DISPOSAL

Dispose of in accordance with all government requirements and prudent regard for minimizing environmental impact.

## SECTION 14 TRANSPORT

Proper shipping name: Polyisocyanate (UN/NA Number NA3082)  
Methyl Isobutyl Ketone UN 1993.  
Flammable liquid class III, Packing group III

## SECTION 15 REGULATORY INFORMATION

OSHA status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. Both ingredients of this mixture are on the TOSCA inventory.

## SECTION 16 OTHER INFORMATION

Origin (source): ***Hydromer Inc.***  
Origin (Country): ***USA***  
Tariff Number:  
Shelf Life: ***1 Year (Unopened Container)***  
Use Area: Anti-fog coating  
Use Level: 100%

### **NOTE:**

Hydromer Inc. believes that the information contained in this material safety data sheet is accurate as of the date first mentioned in such data sheet.

**NO FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR LIMITED IS MADE CONCERNING THE INFORMATION PROVIDED.**

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