



# MATERIAL SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

DESCRIPTION: Cascomelt PUB AB 22

## 1. Chemical Product and Company Identification

DESCRIPTION: **Cascomelt PUB AB 22**  
PRODUCT CODE: 346029  
PRODUCT TYPE: Polyurethane  
APPLICATION: Adhesives

### Manufacturer/Supplier Information

MSDS prepared by:  
Hexion Specialty Chemicals, Inc.  
155 West A Street, Bldg. A-1  
Springfield, OR  
97477

**For Emergency Medical Assistance**  
Call Health & Safety Information Services  
1-866-303-6949

For additional health and safety or regulatory information, call (541)744-3256.

## 2. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(\*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

	% by weight
101-68-8 *Diphenylmethane 4,4'-Diisocyanate (MDI)	1.0 - 5.0

*Any applicable Canadian trade secret numbers will be listed in Section 15.2.*

## 3. Hazards Identification

### 3.1 Emergency Overview

Appearance	White solid
Odor	Uncharacteristic

#### CAUTION!

Toxic gases/fumes may be given off during burning or thermal decomposition.  
Harmful if inhaled. If material is heated or otherwise dispersed, may cause irritation of nose, throat and lungs.  
May cause allergic respiratory reaction.  
Causes eye irritation.  
Causes skin irritation.  
May cause allergic skin reaction.

### HMIS Rating

HEALTH	=	2 (moderate)
FLAMMABILITY	=	1 (slight)
REACTIVITY	=	0 (minimal)
CHRONIC	=	*

### 3.2 Potential Health Effects

#### Immediate Hazards

INGESTION:	Not expected to be harmful under normal conditions of use. If accidentally swallowed, burns or irritation to mucous membranes, esophagus or GI tract can result.
INHALATION:	Harmful if inhaled. If material is heated, or otherwise dispersed, may cause irritation of nose, throat and lungs. Exposure to concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Effects may be delayed.
SKIN:	Skin contact may result in allergic skin reactions or respiratory sensitization. However, it is not expected to result in absorption of amounts sufficient to cause other adverse effects. Molten material may cause thermal burns. Isocyanates react with skin protein and moisture and can cause irritation. Cured material is difficult to remove.
EYES:	Causes irritation.

#### Delayed Hazards

##### 101-68-8 Diphenylmethane 4,4'-Diisocyanate (MDI)

Lung tumors have been observed in laboratory animals exposed to aerosol droplets of diphenylmethane 4,4'-diisocyanate (MDI)/polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. This material has not been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.

Repeated exposure or a single large exposure may cause isocyanate sensitization (chemical asthma). Once sensitized, individuals may react to a later exposure at levels well below the applicable exposure limits. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. There are reports that once sensitized, symptoms may occur upon exposure to dust, cold air or other irritants. Sensitization can either be temporary or permanent.

Chronic overexposure to isocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) which may be permanent. Preexisting asthma and other respiratory disorders (bronchitis, emphysema, hyperreactivity) may be aggravated by exposure.

### 4. First Aid Measures

INGESTION:	If accidentally swallowed, dilute by drinking large quantities of water. If the individual is drowsy or unconscious, do not give anything by mouth. Immediately contact poison control center or hospital emergency room for advice on whether to induce vomiting or for any other additional treatment directions.
INHALATION:	If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen.

Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. Call a physician. Any individual having a dermal or pulmonary sensitization reaction to this material must be removed from any further exposure to any isocyanate.

**SKIN:** Immediately wash with soap and plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician if symptoms occur. Wash clothing before reuse.

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to ensure water contact with entire surface of eyes and lids. Call a physician.

In the event of body contact with molten material, immediately cool with running water; do not attempt to remove material from skin. Consult a physician.

## 5. Fire Fighting Measures

Flash point	Greater than 93.34 °C (200.01 °F)
Lower explosion limit	Not available
Upper explosion limit	Not available
Autoignition temperature	Greater than 300 °C (572 °F)

Will burn.

In case of fire, use water spray, dry chemical, "alcohol" foam or CO<sub>2</sub>. Use water to keep fire-exposed containers cool.

Wear full emergency protective equipment including NIOSH approved pressure demand self-contained breathing apparatus. Isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.

## 6. Accidental Release Measures

Evacuate area of all persons not wearing proper protective equipment. If indoors, ventilate area. For molten material: Allow to cool and solidify. Scrape from surface. For solid material: Sweep up. Remove to a chemical disposal area. Prevent entry into water systems and soil. Wear full protective equipment including respiratory equipment during clean-up.

## 7. Handling and Storage

### 7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing. Wash thoroughly after handling. Always use appropriate Personal Protective Equipment (PPE).

**INHALATION:** Do not breathe dust or vapors. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent chronic overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations.

**SKIN:** Avoid contact with skin and clothing.



Odor	Uncharacteristic
Odor threshold	Not available
Specific gravity	1.1 @25 °C (77 °F)
pH	Not available
Viscosity	Not available
Freezing point	Less than 0 °C (32 °F)
Solubility in water	Negligible
Octanol/water partition coefficient	Not available
Vapor pressure	Less than 0.00001 mm Hg @25 °C (77 °F)
Vapor density	8.5
Evaporation rate	Not available
Boiling point, 760 mm Hg	208 °C (406 °F)

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## 10. Stability and Reactivity

Normally stable as defined in NFPA 704-12(4-3.1).

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### Conditions to avoid:

High heat and moisture.

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### Incompatibilities:

Water, amines, strong bases, alcohols, copper alloys.

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### Decomposition products may include:

CO<sub>2</sub>, CO, oxides of nitrogen, HCN and isocyanates.

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### Hazardous polymerization:

Will not occur.

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## 11. Toxicological Information

See Section 3 Hazards Identification information.

### 101-68-8 Diphenylmethane 4,4'-Diisocyanate (MDI)

LC<sub>50</sub>: rat=0.178 mg/l (RTECS)

LD<sub>50</sub>: Oral-muskrat= 2,200 mg/kg (RTECS); Skin-rabbit=Greater than 10,000 mg/kg (vendor)

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## 12. Ecological Information

Aquatic Toxicity

LC<sub>50</sub> -24 hour (static): Greater than 500 mg/liter [Daphnia magna, Limnea Stagnalis and Zebra fish (Brachydanio rerio)] for both polymeric and monomeric MDI.

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## 13. Disposal Considerations

Dispose of according to local, state/provincial, and federal requirements. Incineration is the preferred method. Empty container: Empty containers retain product residue. Observe all precautions for product. DO NOT heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

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## 14. Transport Information

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### 14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Regulation: Non regulated

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### 14.2 Canadian Transportation of Dangerous Goods (TDG)

Regulation: Non regulated

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## 15. Regulatory Information (Selected Regulations)

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### 15.1 U.S. Federal Regulations

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#### OSHA Hazards Communication Standard 29CFR1910.1200

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

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#### SARA Title III: Section 311/312

Immediate health hazard  
Delayed health hazard

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#### SARA Title III: Section 313 and 40 CFR Part 372

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

Methylenebis(4-phenylisocyanate) (MDI)	N120	2.49%
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#### TSCA Section 8(b) Inventory

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances not manufactured by us.

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### 15.2 Canadian Regulations

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#### Workplace Hazardous Materials Information System (WHMIS)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

Class D1A  
Class D2A  
Class D2B

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## Canadian Environmental Protection Act (CEPA)

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

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### National Pollutant Release Inventory (NPRI)

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

Methylenebis(phenylisocyanate)	101-68-8	2.49%
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## 16. Other Information

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### User's Responsibility

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

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### Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

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