



MATERIAL SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

DESCRIPTION: Cascoset FM-282C

1. Chemical Product and Company Identification

DESCRIPTION: **Cascoset FM-282C**
PRODUCT CODE: 304254
PRODUCT TYPE: Paraformaldehyde Catalyst
APPLICATION: Resorcinol Resin Catalyst

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. Hazards Identification

2.1 Emergency Overview

Appearance	Brown powder
Odor	Pungent

WARNING!

FLAMMABLE SOLID. Combustible dust when finely divided or suspended in air.
May become unstable at high temperatures.
Harmful if inhaled.
May cause allergic respiratory reaction.
Causes chemical burns to eyes.
May cause allergic skin reaction.

NORTH AMERICAN EMERGENCY RESPONSE GUIDE, 2000, NO: 133

HMIS Rating

HEALTH	=	3 (serious)
FLAMMABILITY	=	2 (moderate)
REACTIVITY	=	1 (slight)
CHRONIC	=	*

HMIS® ratings involve data interpretations that may vary from company to company. They are intended only for the rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

2.2 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. Can cause irritation of nose, throat and lungs.
SKIN:	May cause irritation on prolonged or repeated contact.
EYES:	Causes chemical burns.

Delayed Hazards

Wood Flour

POTENTIAL CANCER HAZARD. Wood dust has been classified by IARC as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk of occurrence of adenocarcinomas in the nasal cavities and paranasal sinuses associated with exposure to wood dust. Wood dust has been listed by NTP as a known human carcinogen. It is not regulated by OSHA as a carcinogen.

Depending on species, may cause allergic skin and respiratory reactions.

30525-89-4 Paraformaldehyde

May cause allergic skin reaction.

-- See Footnote at end of section

Footnote: As of the date of issuance of this document, this material has not been listed by NTP, classified by IARC nor regulated by OSHA as a carcinogen.

3. 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
	*Wood Flour	50.0 - 70.0
30525-89-4	*Paraformaldehyde	30.0 - 50.0
64742-54-7	Hydrotreated Heavy Paraffinic Distillate (petroleum)	1.0 - 5.0
50-00-0	*Formaldehyde	0.1 - 1.0

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

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. Call a physician.
SKIN:	In case of irritation, flush with water.
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.

5. Fire Fighting Measures

Suitable Extinguishing Media: In case of fire, flood with water. This will require submerging the powder or bag in a large container or dike. Any containment devices must be vented or opened to allow heat removal and prevent pressure build-up. Combustion products may include oxides of carbon and nitrogen.

FLAMMABLE SOLID. Keep away from heat, sparks, and flame. Refer to NFPA Pamphlet No. 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids," if this material is to be reduced to or collected as a powder.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Organic powders when finely divided (420 microns or smaller in diameter) and suspended in air may form explosive dust-air mixtures and result in a fire or dust explosion.

6. Accidental Release Measures

Eliminate all ignition sources. Gently sweep (scoop) up to avoid creating dust clouds and remove to a chemical disposal area. Prevent entry into natural bodies of water.

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 vapor. Use with adequate ventilation.

SKIN: Avoid prolonged or repeated contact with skin and clothing.

EYES: Do not get in eyes.

7.2 Storage

Keep away from heat, hot surfaces, sparks and flame.

Store in a cool, dry place.

Empty container may contain product residues. DO NOT cut, torch or reuse without commercial cleaning.

If exposure to moisture causes lumping, break lumps into powder before using.

Limited storage life - Refer to product specifications.

Reacts with many compounds. Reaction with phenol, acids, alkalis may be violent.

Use with adequate ventilation.

8. Exposure Controls/Personal Protection

8.1 Exposure Guidelines

Wood Flour				
ACGIH TLV	8-hr TWA		1 mg/m3	(certain hardwoods); Inhalable fraction
	8-hr TWA		5 mg/m3	(softwood)
OSHA PEL	STEL (15 min)		10 mg/m3	(softwood)
	8-hr TWA		5 mg/m3	respirable
	8-hr TWA		15 mg/m3	total dust
	Remanded TWA		5 mg/m3	(all soft and hard woods); 1989 PEL remanded, but in effect in some states
	Remanded STEL		10 mg/m3	(all soft and hard woods)
30525-89-4 Paraformaldehyde				
ACGIH TLV	None established			
OSHA PEL	None established			
64742-54-7 Hydrotreated Heavy Paraffinic Distillate (petroleum)				
ACGIH TLV	None Established			
OSHA PEL	8-hr TWA		5 mg/m3	Oil mist, mineral
50-00-0 Formaldehyde				
ACGIH TLV	Ceiling	0.3 ppm	0.37 mg/m3	A2 - Suspected Human Carcinogen; SEN
OSHA PEL	8-hr TWA	0.75 ppm	0.9 mg/m3	
	STEL (15 min)	2 ppm	2.5 mg/m3	

8.2 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.

If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.3 Personal Protection

Where air contaminants can exceed acceptable criteria, use NIOSH (42 CFR Part 84) approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles if contact is likely. Wear impervious gloves as required to prevent skin contact.

9. Physical and Chemical Properties

Appearance	Brown powder
Odor	Pungent
Odor threshold	Not available
pH	Not available

Freezing point	Not applicable
Boiling point, 760 mm Hg	Not applicable
Flash point	71 °C (160 °F) Pensky-Martens Closed Cup ASTM D 93
Evaporation rate	Not applicable
Lower explosion limit	Not available
Upper explosion limit	Not available
Vapor pressure	Not applicable
Vapor density	Not applicable
Specific gravity	Approx. 0.7
Solubility in water	Soluble
Octanol/water partition coefficient	Not available
Autoignition temperature	Not available
Viscosity	2,500 - 3,500 cPs Brookfield

10. Stability and Reactivity

Chemical Stability

Normally stable, but may become unstable at high temperatures.

Incompatible Materials

Reacts with many compounds. Reaction with phenol, strong acids or alkalis may be violent. Reaction with hydrochloric acid may form bis-chloromethyl ether, an OSHA regulated carcinogen.

Possibility of Hazardous Reactions

Hazardous polymerization is not expected to occur .

11. Toxicological Information

See Section 3 Hazards Identification information.

Wood Flour

LC50: Not available

LD50: Not available

30525-89-4 Paraformaldehyde

LC50: Not available

LD50: Oral-rat= 800 mg/kg (Sax)

64742-54-7 Hydrotreated Heavy Paraffinic Distillate (petroleum)

LC50: Not available

LD50: Oral-rat=Greater than 15,000 mg/kg (Sax); Skin-rabbit=Greater than 5,000 mg/kg (Sax)

50-00-0 Formaldehyde

LC50: rat=0.59 mg/l (Sax)

LD50: Oral-rat= 800 mg/kg (Merck); Skin-rabbit= 270 mg/kg (Sax)

12. Ecological Information

Not determined

13. Disposal Considerations

Dispose of according to local, state/provincial, and federal requirements. Empty container: May contain explosive vapors. DO NOT cut, puncture or weld on or nearby.

14. Transport Information

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 or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Proper shipping name	PARAFORMALDEHYDE MIXTURE
UN/NA number	2213
Class	4.1
Packing group	III
Label	4.1
RQ Ingredients	Formaldehyde, Paraformaldehyde

14.2 Canadian Transportation of Dangerous Goods (TDG)

Proper shipping name	PARAFORMALDEHYDE MIXTURE
UN number:	2213
Class	Class 4.1
Packing group	III
Label	4.1

14.3 Other Regulations

- **ADR/RID**

Proper shipping name	PARAFORMALDEHYDE MIXTURE
UN Number	2213
Class	Class 4.1
Classification Code	F1
Packing group	III
Hazard Identification No. (Kemler Code)	40
Label	4.1

- **IMO/IMDG**

Proper shipping name	PARAFORMALDEHYDE MIXTURE
UN Number	2213
Class	Class 4.1
Packing group	III
Label	4.1

- **IATA (Passenger)**

Proper shipping name	PARAFORMALDEHYDE MIXTURE
UN/ID number	2213
Class	Class 4.1
Packing group	III
Label	4.1

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

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.

SARA Title III: Section 311/312

Fire hazard
Immediate health hazard
Delayed health hazard

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.

Formaldehyde	50-00-0	0.39%
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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.

15.2 Canadian Regulations

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 B4
Class D1B
Class D2A
Class D2B

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.

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.

None required.

16. Other Information

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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