1. Chemical Product and Company Identification

DESCRIPTION: Cascoset® FM-6310L

PRODUCT CODE: 323319

PRODUCT TYPE: Slurry Catalyst/PRF Resin

APPLICATION: PRF Catalyst

Manufacturer/Supplier Information

MSDS Prepared by: Borden Chemical, Inc.
155 West A Street, Bldg. A-1
Springfield, OR 97477

Emergency Phone Number
Poison Control Center
1-800-228-5635 ext 261

For additional health, 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.

<table>
<thead>
<tr>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Formaldehyde</td>
</tr>
<tr>
<td>*Paraformaldehyde</td>
</tr>
<tr>
<td>*Wood Flour</td>
</tr>
</tbody>
</table>

3. Hazards Identification

3.1 Emergency Overview

Appearance: Light brown liquid
Odor: Distinct formaldehyde

WARNING!
Hazardous polymerization may occur.
Will burn.
May become unstable at high temperatures or may react with water.
Harmful if inhaled.
Causes chemical burns to eyes.
May be harmful if absorbed through skin.
Causes skin irritation.
May cause allergic skin reaction.
HMIS Rating

HEALTH = 3 (serious)
FLAMMABILITY = 1 (slight)
REACTIVITY = 1 (slight)
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. Can cause irritation of nose, throat and lungs.

SKIN: May be harmful if absorbed through skin. Causes irritation.

EYES: Causes chemical burns.

Delayed Hazards

Formaldehyde 50-00-0
POTENTIAL CANCER HAZARD. Rats chronically exposed to 14 ppm formaldehyde contracted nasal cancers. Based on animal data and limited epidemiological evidence, NTP and IARC have listed formaldehyde as a probable human carcinogen. OSHA regulates formaldehyde as a potential human carcinogen. May cause allergic skin reaction. Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing respiratory and skin disorders may be aggravated by exposure.

OSHA has identified 0.5 ppm as the "Action Level", 29CFR 1910.1048. Please refer to the OSHA Standard for guidance applicable to your specific operations.

Paraformaldehyde 30525-89-4
May cause allergic skin reaction. -- See Footnote C.

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.
Delayed Hazards

Footnote C: 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.

4. First Aid Measures

**INGESTION:** If accidentally swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room 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:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing and shoes before reuse.

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

5. Fire Fighting Measures

- **Flash point:** >93C (200F)
- **Lower explosion limit:** Not available
- **Upper explosion limit:** Not available
- **Autoignition temperature:** Not available

Will burn. In case of fire, use dry chemical, "alcohol" foam or CO2; water may be ineffective, but should be used to keep fire-exposed containers cool.

6. Accidental Release Measures

Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. For large spills, use water spray to disperse vapors and flush spill area. Prevent runoff from entering waterways or sewers. Use appropriate Personal Protective Equipment (PPE).

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 vapor. Use with adequate ventilation.
SKIN: Avoid contact with skin and clothing.
EYES: Do not get in eyes.

7.2 Storage

Keep container closed.
Store in a cool, dry place.
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.

8. Exposure Controls/Personal Protection

8.1 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.

8.2 Personal Protection

Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved full facepiece respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA 29CFR 1910.1048(g) Respiratory Protection, OSHA 29CFR 1910.134 or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Wear chemical splash goggles or some other type of complete protection for the eye if contact is likely. Wear protective (impervious) gloves as required to prevent skin contact. Where high concentrations of hazardous ingredients may be present, such as in an emergency, full body protection should be worn.
8.2 Personal Protection
Other protective equipment: Eye wash fountain, safety shower. Reusable protective clothing should be cleaned and ventilated after any formaldehyde contamination.

See OSHA 29CFR 1910.1048(h) Protective Equipment and Clothing and OSHA 29CFR 1910.1048(i) Hygiene Protection for other specific requirements based on the form of formaldehyde, the conditions of use and the hazards to be prevented.

8.3 Exposure Guidelines

Formaldehyde  50-00-0
ACGIH TLV: 0.3 ppm (0.37 mg/m³) Ceiling, A2 - See Appendix A
OSHA PEL: 0.75 ppm(0.9 mg/m³) TWA; 2 ppm(2.5 mg/m³) 15min STEL

Paraformaldehyde  30525-89-4
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

Wood Flour
ACGIH TLV: 5 mg/m³ TWA; 10 mg/m³ STEL (softwood)
OSHA PEL: 15 mg/m³ TWA (total dust); 5 mg/m³ (respirable)
REMANDED PEL: 5 mg/m³ TWA; 10 mg/m³ STEL (all soft and hard woods)
OSHA 1989 PEL remanded, but in effect in some states
OTHER: ACGIH TLV: 1 mg/m³ TWA (certain hardwoods)

9. Physical and Chemical Properties

Appearance  Light brown liquid
Odor  Distinct formaldehyde
Odor threshold  Not available
Specific gravity  Not available
pH  4.00-5.30
Viscosity, Brookfield  3000-5000 CPS
Freezing point  Not available
Solubility in water  Not available
Octanol/water partition coefficient  Not available
Vapor pressure @ 25 C  Not available
Vapor density (air=1)  Not available
Evaporation rate (butyl acetate=1)  Not available
Boiling point, 760 mm Hg  Not available

10. Stability and Reactivity

Normally stable, but may become unstable at high temperatures or may react with water.
Decomposition products may include:

CO, CO2, aldehydes (including formaldehyde), particulate matter and other organic compounds.

Hazardous polymerization:

May occur.

11. Toxicological Information

See Section 3 Hazards Identification information.

Formaldehyde 50-00-0
LC50: rat=590 mg/kg (SAX)
LD50: orl-rat=0.8 g/kg (Merck); skn-rbt=0.27 g/kg (Sax)

Paraformaldehyde 30525-89-4
LC50: Not available
LD50: orl-rat=800 mg/kg (Sax)

Wood Flour
LC50: Not available
LD50: Not available

12. Ecological Information

Not determined.

13. Disposal Considerations

Recover free liquid. Absorb residue and dispose of according to local, state/provincial, and federal requirements.

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. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Environmentally Hazardous Substances, Liquid, N.O.S., 9, UN3082, III, RQ Formaldehyde

14.2 Canadian Transportation of Dangerous Goods (TDG)

Bulk shipments regulated as:
Environmentally Hazardous Substances, Liquid, N.O.S. (Formaldehyde)
Class 9.2 UN3082 Pk. Gr. III
Tote tanks and smaller containers non-regulated.
15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations


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

Reactivity 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.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2.08%</td>
</tr>
<tr>
<td>Aluminum Oxide (Fibrous Forms Only)</td>
<td>1344-28-1</td>
<td>0.65%</td>
</tr>
</tbody>
</table>

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 D, DIV 1A
CLASS D, DIV 2A, 2B

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.

Formaldehyde 50-00-0 2.08%

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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