BIO-FOAM® Impression Foam

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTITY
BIO-FOAM® Impression Foam

DATE PREPARED
06/08/09

SYNONYMS, CHEMICAL NAMES, COMMON NAMES
USE:

MANUFACTURER'S NAME
Smithers-Oasis Company

MANUFACTURER TELEPHONE NUMBER – INFORMATION
330-673-5831

ADDRESS
919 Marvin Street
P.O. Box 790
Kent, OH 44240 USA

TELEPHONE NUMBER - INFORMATION
Transportation emergency: CHEMTREC: 800-424-9300
International Transportation: CHEMTREC: 703-527-3887
Rocky Mountain Poison Control Center: 303-623-5716

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Blue fine-celled thermoset phenolic plastic foam. May be irritating to eyes, skin, and respiratory tract.

PRIMARY ROUTE(s) OF EXPOSURE:
Contact and inhalation of dust.

IRRITATION DATA:
May cause irritation to eyes and respiratory tract.

INHALATION:
ACUTE: Dust or fumes may cause irritation to the nasal passages, lacrimation, olfactory changes, and pulmonary changes.
CHRONIC: None known.

SKIN CONTACT:
ACUTE: May cause irritation.
CHRONIC: May cause dermatitis.

EYE CONTACT:
ACUTE: Contact may be irritating.
CHRONIC: May cause conjunctivitis.

INGESTION:
ACUTE: May cause mouth irritation due to local pH effect.
CHRONIC: Prolonged exposure may cause symptoms similar to acute effects.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
None known.

SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS | CAS# | %
--- | --- | ---
Acid catalysts | Proprietary | 8-12 %
Barium sulfate | 7727-43-7 | 1.5-3 %
Heptane | 142-82-5 | < 1.5 %
Formaldehyde | 50-00-0 | < 0.1 %

Other components are non-hazardous or hazardous components are present at less than 1 % (0.1 % for carcinogens).
SECTION 4 - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure to fresh air. If breathing has stopped, give artificial respiration. Oxygen may be given if breathing is difficult. Get medical attention.

SKIN CONTACT: Wash affected area with soap and water until no evidence of the material remains. Get medical attention if irritation develops.

EYE CONTACT: Flush thoroughly with water for at least 15 minutes, occasionally lifting the upper and lower lids, until no evidence of the material remains. Get medical attention if irritation develops. If wearing contact lens, remove immediately and flush eyes as above.

INGESTION: Do not induce vomiting. Treat symptomatically and supportively. If a large quantity is ingested, get medical attention since there could be a problem with physical blockage.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT | FLAMMABLE LIMITS | LEL | UEL | Not applicable
---|---|---|---|---
Not applicable | Not applicable | - | - | -

AUTOIGNITION TEMPERATURE: ~600°F.

EXTINGUISHING MEDIA
Water, foam, carbon dioxide, or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES
Avoid breathing smoke. Firefighters should wear full protective NIOSH approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Finished foam will support combustion if it is ignited by direct contact with an open flame or exposed to temperatures in the range of 600°F. If foam is placed in a microwave for an extended period, it will begin to burn. Combustion occurs at the center of the brick and due to the insulating effect of the foam, can proceed unnoticed until an appreciable heat buildup occurs.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
Wear suitable protective equipment. Reclaim or place in suitable container for disposal.

SECTION 7 - HANDLING AND STORAGE
Store in a cool, dry well ventilated area, out of direct sunlight. Foam stored in stagnant or hot enclosures may result in off gassing of residual formaldehyde gas.

Wash thoroughly after handling. Observe good personal and industrial hygiene procedures.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION
A dust mask is recommended if dust is excessive. Where airborne concentrations may exceed guidelines for permissible air concentrations, choose a respirator in accordance with OSHA Respirator Standard 29 CFR 1910.134.

VENTILATION
Use general dilution ventilation to maintain exposure below the exposure limits.

PROTECTIVE GLOVES
Use barrier cream or choose appropriate gloves in accordance with OSHA Personal Protective Equipment Standard 29 CFR 1910.132.

EYE PROTECTION
Safety glasses are recommended or choose in accordance with OSHA 29 CFR 1910.133.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
Not normally required.

RECOMMENDED EXPOSURE LIMITS
OSHA and ACGIH have not set exposure limits for this material. See Section 2 for exposure limits of components and particulate matter.

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>0.75 ppm PEL, 2.0 ppm STEL</td>
<td>0.3 ppm Ceiling</td>
</tr>
<tr>
<td>Barium sulfate</td>
<td>15 mg/m TWA as Ba (Total dust), 5 mg/m TWA as Ba (Respirable fraction)</td>
<td>&lt;3 %</td>
</tr>
<tr>
<td>Heptane</td>
<td>500 ppm</td>
<td>400 ppm PEL, 400 ppm STEL</td>
</tr>
</tbody>
</table>

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOILING POINT</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>3.0 in 5% slurry</td>
</tr>
<tr>
<td><strong>VAPOUR PRESSURE (mm Hg)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>VAPOUR DENSITY (Air = 1)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>SOLUBILITY</strong></td>
<td>Not soluble</td>
</tr>
<tr>
<td><strong>COEFFICIENT OF WATER/OIL</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>SPECIFIC GRAVITY</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>MELTING POINT</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>SOFTENING POINT</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>EVAPORATION RATE</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>SOLUBILITY</strong></td>
<td>Not soluble</td>
</tr>
<tr>
<td><strong>APPEARANCE AND ODOR</strong></td>
<td>Fine-celled thermoset green phenolic plastic foam.</td>
</tr>
</tbody>
</table>

**SECTION 10 - STABILITY AND REACTIVITY**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Stable at normal room temperature.</td>
</tr>
</tbody>
</table>

| Incompatibility (Materials to Avoid) | Normally unreactive. |

**HAZARDOUS DECOMPOSITION PRODUCTS**

Smoke, oxides of carbon, and possible trace amounts of formaldehyde, phenol, cresols, xylenols, and sulfur dioxide.

<table>
<thead>
<tr>
<th>Hazardous Polymerization</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>May Occur</td>
<td></td>
</tr>
<tr>
<td>Will Not Occur</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Toxicity studies on a similar compound indicate that the Oral LD50 (rat): >5000 mg/kg.
Primary Dermal Irritation Study in Albino Rabbits on a similar compound: Non irritant

Carcinogenicity: This product may contain trace levels of formaldehyde (<0.1%) as an impurity.
Tumorigenic data (RTECS): Formaldehyde; barium sulfate.
Reproductive data (RTECS): Formaldehyde.
Mutagenic data (RTECS): Formaldehyde; barium sulfate
Teratology data: Formaldehyde

**SECTION 12 - ECOLOGICAL INFORMATION**

This formulation has not been tested for environmental effects. It is a thermoset plastic and is not biodegradable.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Dispose in accordance with all applicable federal, state, and local environmental regulations.
Recycling is recommended. It can be cut up and used as a soil filler.

If discarded in its original form, material is not regulated by Resource Conservation and Recovery Act (RCRA) as a hazardous waste. Passes TCLP test requirements.

**SECTION 14 - TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>DOT Classification</th>
<th>DOT UN/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Material is not regulated as a DOT Marine Pollutant.

**SECTION 15 - REGULATORY INFORMATION**

**OSHA:** This material may be classified as hazardous under OSHA regulations. See 29 CFR 1910.1048 for the OSHA Formaldehyde Standard.

**TSCA:** All components are listed or exempt from listing on the TSCA 8(b) inventory.

**SARA Title III - Toxic chemicals list 40 CFR 372.65**

Copper phthalocyanine CAS# 147-14-8 1-2 %
Barium sulfate is exempt from reporting under the category barium compounds (59FR33208).

**SARA HAZARD CATEGORIES:**
CERCLA Toxic Chemicals List 40 CFR 302:

- Formaldehyde  
  RQ: 100#

A spill in excess of 150,000 pounds would require reporting to the National Response Center based on the maximum residual content of formaldehyde in the foam.

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986.

This product contains chemicals known to the State of California to cause cancer or reproductive harm.

SECTION 16 – OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Ratings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

where 0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

Key/Legend:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ACGIH TLV: ACGIH Threshold Limit Values
- CAS: Chemical Abstract Service
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
- CFR: Code of Federal Regulations
- CNS: Central Nervous System
- CPR: Controlled Product Regulations
- DSL: Domestic Substances List
- EINECS: European Inventory of Existing Commercial Chemical Substances
- IARC: International Agency for Research on Cancer
- IDL: Ingredient Disclosure List
- NIOSH: National Institute of Occupational Safety and Health
- OSHA: Occupational Safety and Health Administration
- OSHA PEL: OSHA Permissible Exposure Limits
- RCRA: Resource Conservation and Recovery Act
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- TSCA: Toxic Substances Control Act
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Information System

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