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|  | <h1>Material Safety Data Sheet</h1> |  | 24 Hour Emergency Phone Numbers: Medical/Poison Control: In U.S.: Call 1-800-222-1222 Outside U.S.: Call your local poison control center Transportation/National Response Center: 1-800-535-5053 1-352-323-3500 |
| | | | <p>.....</p> <p>•NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.</p> <p>.....</p> |

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this MSDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

Section 1 - Chemical Product / Company Information

This Material Safety Data Sheet is available in Canadian French and Hispanic American Spanish upon request.
 On peut demander cette fiche signalétique (MSDS) a la langue francaise-canadienne.
 Los Datos de Seguridad del Producto pueden obtenerse en Espanol si lo requiere .

| | | | |
|----------------------------|--|-----------------------|-------------|
| Product Name: | DAP® FIREBLOCK FOAM Polyurethane Foam Sealant | Revision Date: | 08/26/2008 |
| Product UPC Number: | 070798442429 | Supersedes: | 11/27/2006 |
| Product Use/Class: | Pressurized Flam Polyurethane Foam | MSDS Number: | 00077006001 |
| Manufactured For: | DAP Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non-emergency matters) | | |

Section 2 - Hazards Identification

Emergency Overview: A tan thick liquid product with a slight odor. **DANGER!** Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. The primary adverse health effects of this product are related to the Polymeric Isocyanate (MDI) component. Therefore, adequate ventilation should be provided to avoid exceeding the exposure limits of these components (See Section 8). May cause eye, skin, nose, throat and respiratory tract irritation. May cause sensitization by inhalation and skin contact. This product has strong adhesive-like characteristics and will adhere aggressively to skin and other surfaces. If accidental contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS. Harmful if inhaled. Aspiration hazard if swallowed - can enter lungs and cause damage. Harmful or fatal if swallowed. Contents under pressure. Do not puncture can. Exposure to temperatures above 120 °F may cause can to rupture. The likelihood of exceeding these limits are low due to the low concentration of vapor produced during normal use. However, if used indoors, mechanical ventilation or exhaust should be provided during use and until product is cured. MDI vapor can irritate the respiratory tract causing runny nose, sore throat, coughing and reduce lung function.

Refer to other MSDS sections for other detailed information.

Effects Of Overexposure - Eye Contact: May be irritating to eyes. Foam contact can cause physical damage due to adhesive character.

Effects Of Overexposure - Skin Contact: May cause sensitization by skin contact. Harmful: possible risk of irreversible effects in contact with skin. Prolonged and repeated skin contact may cause dermatitis, drying and defatting due to the solvent properties. This product has strong adhesive-like characteristics and will adhere aggressively to skin and other surfaces. If accidental contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS.

Effects Of Overexposure - Inhalation: Vapors may be irritating to eyes, nose, throat, and lungs. Inhalation of vapors is irritating to the respiratory system, may cause throat pain and cough. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Effects Of Overexposure - Ingestion: Harmful or fatal if swallowed. If ingested, may cause vomiting, diarrhea, and depressed respiration. May cause irritation of mucous membranes in the mouth and digestive tract. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.

Effects Of Overexposure - Chronic Hazards: None known.

Primary Route(s) Of Entry: Skin Contact, Inhalation, Ingestion, Eye Contact

Medical Conditions which May be Aggravated by Exposure: Asthma and asthma-like conditions may worsen from prolonged and repeated exposure.

Carcinogenicity:

None.

| Section 3 - Composition / Information On Ingredients | | |
|---|--------------|------------|
| Chemical Name | CASRN | Wt% |
| Polymeric diphenylmethane diisocyanate | 9016-87-9 | 5-10 |
| 4,4'-Methylenediphenyl diisocyanate (MDI) | 101-68-8 | 5-10 |
| Dimethyl ether | 115-10-6 | 3-7 |
| Propane | 74-98-6 | 1-5 |
| n-Butane | 106-97-8 | 1-5 |

Section 4 - First Aid Measures

First Aid - Eye Contact: Immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention.

First Aid - Skin Contact: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of a solvent, such as acetone (nail polish remover) or mineral spirits, may help in removing uncured foam residue from clothing or other surfaces (avoid eye contact). Cured foam may be physically removed by persistent washing with soap and water. If irritation develops, use mild skin cream. If irritation persists, obtain medical attention.

First Aid - Inhalation: Move to fresh air.

First Aid - Ingestion: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person.

Note to Physician: None.

COMMENTS: If over-exposure occurs, call your poison control center at 1-800-222-1222.

Section 5 - Fire Fighting Measures

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: Store away from caustics and oxidizers. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Closed containers may burst if exposed to extreme heat or fire. Eliminate sources of ignition: heat, electrical equipment, sparks and flames.

Special Firefighting Procedures: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Wear proper protective equipment as specified in Section 8. Use personal protective equipment as necessary. Use absorbent material or scrape up dried material and place in container. Uncured product is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product has cured, it can only be removed physically by scraping, buffing, etc. Dispose as plastic waste (foam plastic) in accordance with all applicable guidelines and regulations.

Section 7 - Handling And Storage

Handling: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal. Use only with adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Make sure nozzle is directed away from yourself prior to discharge.

Storage: Keep away from heat and sources of ignition. Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Protect material from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from caustics and oxidizers.

Section 8 - Exposure Controls / Personal Protection

| Chemical Name | CASRN | ACGIH TWA | ACGIH STEL | ACGIH CEIL | OSHA TWA | OSHA STEL | OSHA CEIL | Skin |
|---|-----------|-----------|------------|------------|----------|-----------|-----------|------|
| Polymeric diphenylmethane diisocyanate | 9016-87-9 | N.E. | N.E. | N.E. | N.E. | N.E. | N.E. | No |
| 4,4'-Methylenediphenyl diisocyanate (MDI) | 101-68-8 | 0.005 PPM | N.E. | N.E. | N.E. | N.E. | 0.2 MGM3 | No |
| Dimethyl ether | 115-10-6 | N.E. | N.E. | N.E. | N.E. | N.E. | N.E. | No |
| Propane | 74-98-6 | 1000 PPM | N.E. | N.E. | 1000 PPM | N.E. | N.E. | No |
| n-Butane | 106-97-8 | 1000 PPM | N.E. | N.E. | N.E. | N.E. | N.E. | No |

Precautionary Measures: Please refer to other sections and subsections of this MSDS.

Engineering Controls: Provide sufficient general and/or local exhaust ventilation to maintain exposure below recommended exposure limit. Highly flammable vapors are heavier than air and may accumulate in low areas. Check all low areas for presence of vapor. Vapors are heavier than air and may spread along floors. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Refer to OSHA Standards 29 CFR 1910.94 and 29 CFR 1910.107.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH-approved air purifying respirator with an organic vapor cartridge or canister may be necessary under certain circumstances where airborne concentrations are expected to exceed exposure limits. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin Protection: Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate protective clothing to prevent skin contact. Wear solvent impervious gloves.

Eye Protection: Goggles or safety glasses with side shields.

Other protective equipment: Not required under normal use.

Hygienic Practices: Remove and wash contaminated clothing before re-use.

Important: Listed Permissible Exposure Levels (PEL) are from the U.S. Dept. of Labor OSHA Final Rule Limits (CFR 29 1910.1000); these limits may vary between states.

Note: An employee's skin exposure to substances having a "YES" in the "SKIN" column in the table above shall be prevented or reduced to the extent necessary under the circumstances through the use of gloves, coveralls, goggles or other appropriate personal protective equipment, engineering controls or work practices.

Section 9 - Physical And Chemical Properties

| | | | |
|----------------------------------|-----------------------|----------------------------------|-----------------------------|
| Boiling Range: | Not Established | Vapor Density: | Not Established |
| Odor: | Slight | Odor Threshold: | Not Established |
| Color: | Tan | Evaporation Rate: | Slower Than n-Butyl Acetate |
| Solubility in H2O: | Not Established | Specific Gravity: | 1.2 |
| Freeze Point: | Not Established | pH: | Not Established |
| Vapor Pressure: | > 50 psi in container | Viscosity: | Not Established |
| Physical State: | Thick Liquid | Flammability: | Level II Aerosol |
| Flash Point, F: | N.A. | Method: | (Not Applicable) |
| Lower Explosive Limit, %: | Not Established | Upper Explosive Limit, %: | Not Established |

When reported, vapor pressure of this product has been calculated theoretically based on its constituent makeup and has not been determined experimentally.

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts). Excessive heat and freezing.

Incompatibility: Alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

Hazardous Decomposition Products: Normal decomposition products, i.e., COx, NOx.

Hazardous Polymerization: Hazardous polymerization will not occur under normal conditions.

Stability: Stable under recommended storage conditions.

Section 11 - Toxicological Information

Product LD50: Not Established

Product LC50: Not Established

| CASRN | Chemical Name | LD50 | LC50 |
|-------|---------------|------|------|
| | | | |

Significant Data with Possible Relevance to Humans: None.

Section 12 - Ecological Information

Ecological Information: Ecological injuries are not known or expected under normal use.

Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

EPA Waste Code if Discarded (40 CFR Section 261): D001.

Section 14 - Transportation Information

DOT Proper Shipping

Aerosols, flammable

Packing Group:

N.A.

Name:**DOT Technical Name:** N.A.**Hazard Subclass:** N.A.**DOT Hazard Class:** 2.1**DOT UN/NA Number:** UN1950

Note: The shipping information provided is applicable for domestic ground transport only. Different categorization may apply if shipped via other modes of transportation and/or to non-domestic destinations.

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| Section 15 - Regulatory Information |
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CERCLA - SARA Hazard Category:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Immediate Health Hazard, Chronic Health Hazard, Fire Hazard, Pressurized Hazard

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| Chemical Name | CAS Number |
|---|------------|
| Polymeric diphenylmethane diisocyanate | 9016-87-9 |
| 4,4'-Methylenediphenyl diisocyanate (MDI) | 101-68-8 |

Toxic Substances Control Act:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None.

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product:

| Chemical Name | CAS Number |
|------------------------|-------------|
| Non-Hazardous Additive | Proprietary |

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%:

| Chemical Name | CAS Number |
|------------------------|-------------|
| Non-Hazardous Additive | Proprietary |

California Proposition 65:

None.

Section 16 - Other Information

HMIS Ratings:

| | | | |
|-----------|-----------------|---------------|------------------------|
| Health: 2 | Flammability: 2 | Reactivity: 1 | Personal Protection: X |
|-----------|-----------------|---------------|------------------------|

Volatile Organic Compounds (VOC), less water less exempts: g/L: 144.0 lb/gal: 1.2 wt:wt%: 12.0

Volatile Organic Compounds (VOC), less water less exempts, less LVP -VOCs : wt:wt%: 12.0

REASON FOR REVISION: Periodic Update

| | | |
|----------------|----------------------------------|---|
| Legend: | N.A. – Not Applicable | ACGIH – American Conference of Governmental Industrial Hygienists |
| | N.E. – Not Established | SARA – Superfund Amendments and Reauthorization Act of 1986 |
| | N.D. – Not Determined | NJRTK – New Jersey Right-to-Know Law |
| | VOC – Volatile Organic Compound | OSHA – Occupational Safety and Health Administration |
| | PEL – Permissible Exposure Limit | HMIS – Hazardous Materials Identification System |
| | TLV – Threshold Limit Value | NTP – National Toxicology Program |
| | CEIL – Ceiling Exposure Limit | STEL – Short Term Exposure Limit |
| | LD50 – Lethal Dose 50 | LC50 – Lethal Concentration 50 |
| | F – Degree Fahrenheit | MSDS – Material Safety Data Sheet |
| | C – Degree Celsius | CASRN – The Chemical Abstracts Service Registry Number |

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. **NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS.** Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

<End of MSDS>