1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-Hour Emergency Phone Number: 989-636-4400

Product: DOW* PROTECTION BOARD II EXTRUDED FOAM

Product Code: 59532

Effective Date: 01/05/04 Date Printed: 01/06/04 MSD: 006418

The Dow Chemical Company, Midland, MI 48674
Customer Information Center: 800-258-2436

2. COMPOSITION/INFORMATION ON INGREDIENTS

Modified polystyrene copolymer
Difluoroethane CAS# 000075-37-6

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
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* Blue foam. Odorless. No significant immediate hazard for emergency response are known. *
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POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE: Solid or dust may cause irritation or corneal injury due to mechanical action.

SKIN: Essentially non-irritating to the skin. Mechanical injury only. No adverse effects anticipated by skin absorption.

INGESTION: Low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause choking or blockage of the digestive tract if swallowed.

INHALATION: Dust may cause irritation to upper respiratory tract (nose and throat). Vapors/fumes released during thermal operations such as hot wire cutting may cause eye and respiratory irritation. For difluoroethane (HFC 152a): Symptoms of excessive exposure may be anesthetic or narcotic

(Continued on page 2 , over)

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effects; dizziness and drowsiness may be observed. May cause central nervous system effects. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats).

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Repeated excessive exposure to difluoroethane may possibly cause kidney effects. For the components tested: excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. The component(s) is/are difluoroethane (HFC 152a).

CANCER INFORMATION: Neither polystyrene foam dust nor 1,1,1-difluoroethane (HCF-152a) caused cancer in laboratory animals.

TERATOLOGY (BIRTH DEFFECTS): Contains component(s) which did not cause birth defects or any other fetal effects in lab animals. The component(s) is/are 1,1-difluoroethane (HFC 152a).

REPRODUCTIVE EFFECTS: No relevant information found.

4. FIRST AID

EYE: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected.

SKIN: Wash skin with plenty of water.

INGESTION: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

INHALATION: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

NOTE TO PHYSICIAN: Maintain adequate ventilation and oxygenation of the patient. Exposure may increase "myocardial irritability." Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. Repeated excessive exposure may aggravate pre-existing kidney disease. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

(Continued on page 3)
FLAMMABLE PROPERTIES
FLASH POINT: Not applicable
METHOD USED: Not applicable

FLAMMABILITY LIMITS
LFL: Not applicable
UFL: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain
the original material in addition to combustion products of
varying composition which may be toxic and/or irritating. In
smoldering or flaming conditions, carbon monoxide, carbon
dioxide and carbon are generated. Studies have shown that the
products of combustion of this foam are not more acutely toxic
than the products of combustion of common building materials
such as wood.

OTHER FLAMMABILITY INFORMATION: Container may vent and/or rupture
due to fire. When product is stored in closed containers a
flammable atmosphere can develop. Mechanical cutting, grinding
or sawing can cause formation of dusts. To reduce the potential
for dust explosion, do not permit dust to accumulate. This
plastic foam product is combustible and should be protected from
flames and other high heat sources. For more information
contact Dow. Dense smoke is produced when product burns.

EXTINGUISHING MEDIA: Water fog or fine spray, dry chemical fire
extinguishers, carbon dioxide fire extinguishers and foam.

FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area
and deny unnecessary entry. Soak thoroughly with water to cool
and prevent re-ignition. If material is molten, do not apply
direct water stream. Use fine water spray or foam. Cool
surroundings with water to localize fire zone.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure,
self-contained breathing apparatus (SCBA) and protective fire
fighting clothing (includes fire fighting helmet, coat, pants,
boots, and gloves). If protective equipment is not available
or not used, fight fire from a protected location or safe
distance.

6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory
Information)

(Continued on page 4 , over)
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7. HANDLING AND STORAGE

HANDLING: See Section 8, Exposure Controls/Personal Protection.

STORAGE: Minimize sources of ignition, such as static buildup, heat, spark or flame. When large quantities of this product are stored or fabricated, blowing agents may be released. Released blowing agents may thermally decompose to form gases which may accelerate corrosion or rust formation of heaters, boilers, gas fired recirculating air furnaces or heaters or gas water heaters. Flammable vapors may accumulate in some storage situations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

RESPIRATORY PROTECTION: When respiratory protection is required, selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. In dusty or misty atmospheres, use an approved particulate respirator.

(Continued on page 5)

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EXPOSURE GUIDELINE(S): 1,1-difluoroethane (HCFC-152a): Dow IHG is 500 ppm. AIHA WEEL is 1000 ppm TWA.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Blue foam
ODOR: Odorless
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
BOILING POINT: Not applicable
SOLUBILITY IN WATER/MISCIBILITY: None
SPECIFIC GRAVITY OR DENSITY: 0.035-0.055

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Thermally stable at typical use temperatures.

CONDITIONS TO AVOID: Avoid temperatures above 300°C (572°F). Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with oxidizing materials. Avoid contact with aldehydes, amines, esters, liquid fuels and organic solvents.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not normally decompose. Evolution of small amounts of hydrogen halides occur when heated over 250°C (482°F). Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: aromatic compounds, aldehydes, ethylbenzene, hydrogen fluoride, polymer fragments, styrene. Under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and ethylbenzene are generated.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

MUTAGENICITY: For 1,1-difluoroethane (HFC-152a): in vitro genetic toxicity studies were negative in some cases and positive in other cases.

12. ECOLOGICAL INFORMATION (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

(Continued on page 6, over)

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ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: No bioconcentration is expected because of the relatively high molecular weight (MW >1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.

DEGRADATION & PERSISTENCE: Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected. Based largely or completely on information for blowing agent: 1,1-difluoroethane (HFC 152a) has a stratospheric ozone depletion potential (ODP) of zero, relative to CFC 12 (ODP=1).

ECOTOXICITY: Not expected to be acutely toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

DISPOSAL: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device.

For additional information, refer to Handling & Storage Information, MSDS Section 7.

As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Center at 800-258-2436 or 989-832-1556 for further details.

14. TRANSPORT INFORMATION

(Continued on page 7)

* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY
DEPARTMENT OF TRANSPORTATION (D.O.T.): This product is not regulated by D.O.T. when shipped domestically by land.

CANADIAN TDG INFORMATION: This product is not regulated by TDG when shipped domestically by land.

15. REGULATORY INFORMATION (Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

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:

Not to have met any hazard category

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: This product is not known to contain any
REGULATORY INFORMATION (CONTINUED)

substances subject to the disclosure requirements of Pennsylvania

OSHA HAZARD COMMUNICATION STANDARD:

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

This product is exempt under WHMIS.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All substances in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATING:

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<td>Reactivity</td>
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For further information, contact the Plastics Customer Information Group at 1-866-583-BLUE(2583).

MSDS STATUS: Revised all sections.

NOTICE: Dow urges each customer or recipient of this MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this MSDS and any hazards associated with the product. The information herein is provided in good faith and

(Continued on page 9)
believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that its activities comply with all applicable federal, state, provincial and local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of Dow, it is the buyer's/user's duty to determine the conditions necessary for safe use of this product.

Due to the proliferation of sources for information such as manufacturer-specific MSDSs, Dow is not and cannot be responsible for MSDSs obtained from any source other than Dow. If you have obtained a Dow MSDS from a non-Dow source or if you are not sure that a Dow MSDS is current, please contact Dow for the most current version.