

MATERIAL SAFETY DATA SHEET

NOBLE SHELF BENCH

MSDS DATE:
2/15/08

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NOBLE SHELF BENCH

MANUFACTURER: NOBLE COMPANY
ADDRESS: 7300 Enterprise Drive; Spring Lake, MI 49456

EMERGENCY PHONE: (231) 799-8000
OTHER CALLS: (231) 799-8000
FAX PHONE: (231) 799-8850

CHEMICAL NAME: Polystyrene w/ Acrylic polymer
FAMILY NAME: Extruded foam insulation

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

EXTRUDED FOAM INSULATION:

<u>Ingredient:</u>	<u>Cas No.</u>
Polystyrene	009003-53-6
Chlorodifluoroethane Copolymer Mixtures	000075-68-3
Halogenated flame retardant	

This product may contain additives (such as magnesium silicate, CAS #14807-96-6) generally at levels <1.5% maximum.

SUPERIOR FINISH:

<u>Ingredient:</u>	<u>Cas No.</u>	<u>% Vol</u>	<u>ACGIH-TLV</u>	<u>OSHA PEL</u>
Sand (encapsulated)	14808-60-7	62-66%	10	15
Water	7732-18-5	12-15%	NE	NE
Acrylic Polymer	N/A	9-10%	NE	NE
Titanium Dioxide	13463-67-7	1-5.5%	5	NE

GROUT/CEMENT:

<u>Ingredient:</u>	<u>Cas No.</u>	<u>% Vol</u>
Calcium Sulfate	7778-18-9	5-10%
Silica, Quartz	14808-60-7	30-60%
Portland Cement	65997-15-1	10-30%
Gypsum (Ca(SO ₄).2H ₂ O)	113997-24-5	0.5-1.5%

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Rigid cellular foam board. Odorless. No significant immediate hazards for emergency response are known.

ROUTES OF ENTRY: Eye, nose, mouth

POTENTIAL HEALTH EFFECTS

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

SKIN: Essentially nonirritating to skin – mechanical injury only.

INGESTION: Unlikely due to physical state. Physical injury only. May cause choking if swallowed. Practically non-toxic.

INHALATION: Dust may cause irritation to upper respiratory tract.

CHRONIC HEALTH HAZARDS: None

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Exposure to dust may aggravate respiratory conditions.

CARCINOGENICITY:

OSHA: N/A ACGIH: N/A NTP: N/A IARC: N/A OTHER: N/A

SECTION 4: FIRST AID MEASURES

NOBLE SHELF BENCH (CON'T)

EYES: Flush with plenty of water; mechanical effects only. Remove foreign particles with clean, lint free cloth. Obtain medical attention if pain, blinking, tears or redness persist.

SKIN: Rinse off in flowing water and wash with soap and water.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

INHALATION: Remove to fresh air. If not breathing, qualified personnel should give artificial respiration and transport to medical facility.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Exposure may increase "myocardial irritability." Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME) **UPPER:** N/A **LOWER:** N/A

FLASH POINT:	EXTRUDED FOAM INSULATION:	ELASTOMERIC FINISH:
F: 670°		Non-combustible
C: 354°		Non-combustible

METHOD USED: ASTM D1929 Proc. B

NFPA HAZARD CLASSIFICATION:	HEALTH: 0	FLAMMABILITY: 1	REACTIVITY: 0	SPECIFIC: 0
HMIS GROUT HAZARD CLASSIFICATION		HEALTH: 1	FLAMMABILITY: 1	
		PHYSICAL HAZARD: 0		
		PERSONAL PROTECTION: X		

EXTINGUISHING MEDIA: Water fog, Carbon dioxide, Dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, pants, boots, and gloves). Once ignited this product will burn, emitting a dense black smoke. Highly toxic fumes are released in fire situations. **Protect the environment:** Keep out of sewers and bodies of water. Fire water run-off may be toxic.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product should not be shipped, stored, or used in virtually airtight spaces to prevent the build-up of combustible vapors.

HAZARDOUS DECOMPOSITION PRODUCTS: (may include but are not limited to):
EXTRUDED FOAM INSULATION: CO and CO²
ELASTOMERIC FINISH: None

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Clean-up: Pick up, or if dust or small pieces, sweep up and place in suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Handling: Mechanical handling equipment can cause formation of dusts, maintain good housekeeping. Layers of flammable dusts should not be permitted.

Storage: Flammable vapors may accumulate in some storage situations. Storage, use and handling areas should be designated "no smoking" areas.

OTHER PRECAUTIONS: Notice: This polystyrene foam plastic product is combustible and should be protected from flame and other high heat sources.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION : Provide general or local exhaust ventilation to control airborne levels below the exposure guidelines.

RESPIRATORY PROTECTION: For dusty conditions use a dust mask approved by NOIAH.

EYE PROTECTION: Wear goggles or safety glasses with side shields.

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

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Protective gloves recommended.

WORK HYGIENIC PRACTICES: Clean clothing on a regular basis.

EXPOSURE GUIDELINES:

Ethyl chloride: ACGIH TLV is 100 ppm. OSHA PEL is 1000 ppm.

Chlorodifluoroethane (HCFC 142B): AIHA WEEL is 1000 ppm, TWA.

ACGIH – Threshold Limits Values – Time Weighted Averages (TLV-TWA)

Calcium sulfate	7778-18-9	10mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)
Portland Cement	65997-15-1	10mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)
Silica, Quartz	14808-60-7	0.05 mg/m3 TWA (respirable fraction)

OSHA – Vacated Pels – TWAs

Calcium sulfate	7778-18-9	15 mg/m3 TWA; 5mg/m3 TWA (respirable fraction)
Gypsum (Ca(SO4).2H2O)	13397-24-5	15 mg/m3 TWA (total dust); 5mg/m3 TWA (respirable fraction)
Portland Cement	65997-15-1	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Silica, Quartz	14808-60-7	0.1 mg/m3 TWA (respirable dust)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/ PHYSICAL STATE: Rigid cellular foam board with finish coat.

ODOR: Odorless

BOILING POINT: Not applicable

MELTING POINT: Not applicable

FREEZING POINT: Not applicable

VAPOR PRESSURE (mmHg): Not applicable

VAPOR DENSITY (AIR = 1): Not applicable

EVAPORATION RATE: Not applicable

SOLUBILITY IN WATER: Not applicable

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions. May react with strong acids.

CONDITIONS TO AVOID (STABILITY): Finish reacts with acids to liberate CO². Avoid fire and high temperatures. Temperatures over 300°C (572°F) will release combustible gases.

INCOMPATIBILITY (MATERIAL TO AVOID): Aromatic hydrocarbons, higher (>C5) aliphatic hydrocarbons, esters, amines, higher aldehydes.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Does not normally decompose. In smoldering or flaming conditions CO, CO², carbon are generated. Evolution of small amounts of Hydrogen bromide and Hydrogen fluoride occurs when burned or heated over 250°C (482°F); under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and ethylbenzene are generated.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Mutagenicity – For the minor components ethyl chloride and chlorodifluoroethane in-vitro mutagenicity studies were negative for some cases and positive in other cases. For the minor component chlorodifluoroethane animal mutagenicity studies were negative. For the minor component HBCD in-vitro mutagenicity studies were negative.

**GROUT:
LD50**

Toxicology Data – Selected LD50s and LC50s

Calcium sulfate	7778-18-9	Oral LD50 Rat: >3000 mg/kg
Silica, Quartz	14808-60-7	Oral LD50 Rat: 500 mg/kg

Routes of exposure If any toxicological data is available it will be listed below:

Carcinogenicity**IARC – Group 1 (Carcinogenic to Humans)**

Silica, Quartz 14808-60-7 Monograph 68, 1997 (Listed under crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources)

NTP (National Toxicology Program) – Report on Carcinogens – Know Carcinogens

Silica, Quartz 14808-60-7 Known Carcinogen

OSHA – Hazard Communication Carcinogens

Silica, Quartz 14808-60-7 Present

SECTION 12: ECOLOGICAL INFORMATION**ECOLOGICAL INFORMATION:**

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 will sink and remain in the sediment.

Degradation & Persistence: This water insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

Ecotoxicity: Not expected to be acutely toxic.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: As a waste, this product in its raw form DOES NOT MEET the criteria of a hazardous waste as defined by RCRA (40CFR361). It is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. As a waste, this product can be treated to meet local sanitary district standards. Dispose of in accordance with all applicable state, federal, and local regulations.

SECTION 14: TRANSPORT INFORMATION**U.S. DEPARTMENT OF TRANSPORTATION**

HAZARD CLASS: This product is not regulated by D.O.T. when shipped domestically by land.

SECTION 15: REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):**

311/312 HAZARD CATEGORIES: Exempt article.

313 REPORTABLE INGREDIENTS:

Chlorodifluoroethane	000075-68-3	6-10 %
Ethyl Chloride (Chloroethane)	000075-00-3	0-4.5%

STATE REGULATIONS:

California Proposition 65: This product contains a chemical known to the state of California to cause cancer.

State Right to Know: The following product components are cited on certain state lists as mentioned.

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>	<u>List</u> ¹
Chlorodifluoroethane	000075-68-3	6-10 %	NJ2, NJ3, PA1
Ethyl Chloride (Chloroethane)	000075-00-3	0-4.5%	NJ3, PA1, PA2
Silica, Quartz	14808-60-7	Carcinogen, initial date 10//1/88 (airborne particles of respirable size)	

INTERNATIONAL REGULATIONS:

Canadian Regulations: This product is not a "Controlled Product" under the Canadian Workplace Hazardous Materials Information System.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: This document is generated for the purpose of distributing health, safety, and environmental data. It is not a specification sheet nor should any displayed data be construed as a specification.

¹ NJ2 = New Jersey Environmental Hazardous Substance (present at $\geq 1.0\%$) NJ3 = New Jersey Workplace Hazardous Substance (present at $\geq 1.0\%$) PA1 = Pennsylvania Hazardous Substance (present at $\geq 1.0\%$) PA3 = Pennsylvania Environmental Hazardous Substance (present at $\geq 1.0\%$)

NOBLE SHELF BENCH (CON'T)

PREPARATION INFORMATION: The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all-inclusive, and the manner and conditions of use and handling may involve other or additional considerations. Consult *Noble Company* for further information.

DISCLAIMER: The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the material are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the material.

This MSDS was prepared and is to be used only for this material. If the material is used as a component in another material, this MSDS information may not be applicable. This document is generated for the purpose of distributing health, safety, and environmental data. It is not a specification sheet nor should any displayed data be construed as a specification. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the material itself.