



Material Safety Data Sheet

Date of Preparation: August 2011

Revision: 001

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: H-Shield, Tapered H-Shield, H-Shield F, H-Shield NB, H-Shield WF, Tapered H-Shield WF, Hinged Target™ Sump, Cool-Vent. Hunter Xci Ply, Hunter Xci Foil

Chemical Family: Polyisocyanurate

CAS Number: N/A

Other Designations: Polyiso

Manufacturer: Hunter Panels LLC, 15 Franklin Street, Portland, ME 04101

Emergency Phone Number: CHEMTREC (USA) 800-424-9300

NFPA Hazard Rating: Health 1, Flammability 1, Reactivity 0

HMIS Hazard Rating: Health 1, Flammability 1, Reactivity 0

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS #	% wt	OSHA PEL (ppm)	TWA (ppm)
Polyisocyanurate	None	> 70	None Established	None Established
Proprietary additives	Proprietary	< 5	None Established	Non Established
n-Pentane	109-60-0	< 10	1000	600
Iso-Pentane	78-78-4	< 5	1000	600
Fibrous glass	None	< 10	TLV 1 f/cc(Respirable)	TLV 5 mg/m ³ (Inhalable)

Section 3 - Hazards Identification

Potential Health Effects

Primary Entry Routes: Inhalation, skin contact

Target Organs:

Acute Effects

Inhalation: irritation.

Eye: irritation

Skin: irritation

Ingestion:

Carcinogenicity: IARC, NTP, and OSHA do not list this product as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure:

Chronic Effects: Possible allergic reaction of respiratory system (sensitization)

Section 4 - First Aid Measures

Inhalation: Remove to fresh air.

Eye Contact: Flush with water for 15 minutes or until irritation ceases.

Skin Contact: Wash with soap and water.

Ingestion:

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians:

Special Precautions/Procedures: Persons who develop symptoms of allergy, irritation, respiratory problems, or puffiness around the eyes should be examined by a physician as soon as possible.

Section 5 - Fire-Fighting Measures

Flash Point: N/A

Flash Point Method: N/A

Burning Rate:

Autoignition Temperature: Not available.

LEL: N/A

UEL: N/A

Flammability Classification: Division 4

Extinguishing Media: In case of fire, use dry chemicals, carbon dioxide, foam, or water fog,

Unusual Fire or Explosion Hazards: None known.
Hazardous Combustion Products: Carbon monoxide, carbon dioxide.
Fire-Fighting Instructions: Fire-fighters should wear self-contained breathing apparatus.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Normal housekeeping.
Small Spills: N/A
Large Spills: N/A
Containment: N/A
Cleanup: N/A
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: No special equipment required.
Storage Requirements: Protect from moisture.
Regulatory Requirements: N/A

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Sufficient ventilation (when cutting) to keep exposure to nuisance dust below 5 mg/m³.
Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Administrative Controls:
Respiratory Protection: OSHA approved respirator or dust mask when cutting.
Protective Clothing/Equipment: Protective gloves. Safety glasses or goggles, especially when cutting. Protective clothing and footwear.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Solid	Water Solubility: Not soluble.
Appearance and Odor: Tan core foam with cellulose glass fiber facings-no odor.	Other Solubilities:
Odor Threshold: N/A	Boiling Point: N/A
Vapor Pressure: N/A	Freezing/Melting Point: N/A
Vapor Density (Air=1): N/A	Viscosity: N/A
Formula Weight:	Refractive Index: N/A
Specific Gravity (H₂O=1, at 4 °C): Unknown	Surface Tension: N/A
pH: N/A	% Volatile: N/A
	Evaporation Rate: N/A

Section 10 - Stability and Reactivity

Stability: Stable.
Polymerization: Will not occur.
Chemical Incompatibilities: Acetone, MEK, THF, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide, and dimethyl formamide.
Conditions to Avoid: Open flame. Will burn if exposed to fire of sufficient heat and intensity.
Hazardous Decomposition Products: Toxic smoke or vapors, such as carbon monoxide or carbon dioxide, may be released in a fire.

Section 11- Toxicological Information

Acute Toxicity

A: General Product Information

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

n-pentane may be released at very low concentrations (well below their lower flammability limits) from these products when they are cut or crushed. These pentanes are nontoxic at levels below their lower flammability limits.

B: Component Analysis – LD50/LC50

n-pentane (109-60-0)

Oral LD50 Mouse: 12800 mg/kg

Carcinogenicity

A: General Product Information

The Occupational Safety and Health Administration (OSHA), National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), and American Conference of Governmental Industrial Hygienists (ACGIH) have not classified this product as a carcinogen.

B: Component Carcinogenicity

Continuous filament glass fibers (65997-17-3)

ACGIH: A4 – Not classifiable as a Human Carcinogen

IARC: Group 3 – Not classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

Chronic Toxicity

Polyisocyanurate Foam: There is no evidence that dust from this material causes disease in man. There are no known animal studies of the chronic health effects of breathing dust from polyisocyanurate foam. However, a subchronic inhalation study showed no adverse respiratory effects in rats as a result of breathing 9 mg/m³ of dust from a similar foam (polyurethane foam) for 3 months (Thyssen et al., 1978). In 1987, IARC designated polyurethane as Group 3, not classifiable as to carcinogenicity to humans (Monograph 19).

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Long-term epidemiologic studies do not show any increases in respiratory cancer or other disease among employees who manufacture this product. In 1987, the International Agency for Research on Cancer (IARC) classified continuous filament fiber glass as a Group 3 substance, “not classifiable as to its carcinogenicity to humans.” In 2001, IARC re-affirmed this designation. Because of the large diameter of continuous filament fibers, these fibers are not considered respirable.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

No additional information available

B: Component Analysis – Ecotoxicity – Aquatic Toxicity

n-pentane (109-60-0)

Material Name: Polyisocyanurate Foam Insulation

48 Hr EC50 Daphnia magna: 10.5 mg/L

Isopentane (78-78-4)

48 Hr EC50 Daphnia magna: 2.3 mg/L

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the EPA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: H Shield,
Tapered H Shield, H Shield
Hinged Sump

Shipping Symbols: N/A

Hazard Class: N/A

ID No.: N/A

Packing Group: N/A

Label: N/A

Special Provisions (172.102):
N/A

Packaging Authorizations

a) Exceptions: N/A

b) Non-bulk Packaging: N/A

c) Bulk Packaging: N/A

Quantity Limitations

a) Passenger, Aircraft, or Railcar:

b) Cargo Aircraft Only: N/A

Vessel Storage Requirements

a) Vessel Stowage: N/A

b) Other: N/A

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ), N/A

SARA 311/312 Codes:

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance not listed

State Regulations:

N/A

Section 16 - Other Information

Prepared By: Research & Development

Revision Notes:

Additional Hazard Rating Systems:

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