

Material Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **NRG GREENBATT™**- EPS EXPANDABLE POLYSTYRENE FIRE RETARDANT

This data sheet applies to all grades of NRG Greenbatt which contain fire retardant additives to modify their flammability properties.

Recommended Use: NRG GREENBATT™ EPS, EXPANDABLE POLYSTYRENE (FIRE RETARDANT, VERMIN RESISTENT) used for i to floors/ceilings/walls

Manufacturer

/ Supplier: NRG Manufacturing
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2. HAZARDS IDENTIFICATION

Health Hazard Classification

This material is classified as NOT hazardous according to the health criteria of NOHSC Australia.

Risk Phrase(s)

None Allocated

Safety Phrase(s)

None Allocated

Dangerous Goods classification

Does not meet criteria for classification as dangerous goods.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

CHEMICAL ENTITY	CAS NO.	PROPORTION (% weight/ weight)
Polystyrene	9003-53-6	92-95
n-Pentane	109-66-0)	5-8
Isopentane	78-78-4)	
Polybrominated hydrocarbon (x)	Not Available	< 1
Styrene	100-42-5	< 0.25

X The Polybrominated hydrocarbon fire retardant additive ingredient does not meet the NOHSC criteria for a hazardous substance.

4. FIRST AID MEASURES

For advice, contact Poisons Information centre (Phone Australia 13 11 26) or a doctor.

Ingestion:

Swallowing unlikely. If swallowed, obtain medical attention.

Eye Contact:

If dust in eyes, flush immediately with water for at least 15 minutes. Retract eyelids often. If discomfort persists seek emergency medical attention.

Skin Contact:

Not required.

Inhalation:

Remove to fresh air. If not breathing give artificial respiration. If breathing difficult give oxygen. Obtain emergency medical attention.

First Aid facilities:

No special facilities required.

ADVICE TO DOCTOR

Test symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water, foam, carbon dioxide and dry chemical.

Hazards from combustion products:

Incomplete combustion may produce carbon monoxide and other toxic gases.

Precautions for fire fighters and special protective equipment:

The product is a combustible thermo plastic material which will melt and drip when ignited and give off combustion which are toxic (see, "Hazardous from combustion products" section). Fire fighters and others who may be exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

Hazchem code:

None allocated

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:

Normal practices of fire safety and housekeeping should be observed including:

Prohibit open flames or potential flame sources in product storage areas.

Protect product from hot work, such as welding, by a suitable protective fire barrier. During such work, have a suitable fire extinguisher handy

Dispose of waste product promptly as good housekeeping practice

Methods and materials for containment and clean up procedures:

Non hazardous waste. Polystyrene is stable when buried in soil but is slowly degraded by sunlight. If feasible recycle. Can be used as a soil container. Dispose of waste in an approved landfill.

7. HANDLING AND STORAGE

Precautions for safe handling:

NRG GREENBOARD™ EXPANDED POLYSTYRENE is not classified as Dangerous Goods for transport, storage or handling.

Smoking should be prohibited during unloading of the product and in storage areas as good safety practice.

Conditions for safe storage:

Combustible solid. Store in open or well ventilated areas (see Engineering Controls). Store away from sources of strong heat or flame. Keep away from strong oxidising agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National exposure standards:

No exposure standard is published by NOHSC Australia for the EPS, however NOHSC have established the following exposure standards for components.

	8-hr TWA		STEL (15 min's)		Peak Limitation		Carcinogen Category	Notices
	ppm	mg / m ³	ppm	mg / m ³	ppm	mg / m ³		
Pentane	600	1770	750	2,210	---	---	---	---

Exposures to airborne dust and pentane are unlikely to exceed National Occupational Health and Safety Commission (NOHSC) exposure standards when using this product.

ENGINEERING CONTROLS

Special ventilation is not normally required when handling the product.

PERSONAL PROTECTION

Special protection is not normally required. If further processing involves sanding or sawing, safety glasses with side-shields and a dust mask (Type P1 filter) meeting AS/NZS1716 and used in accordance with AS/NZS1715 are recommended as good industrial practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / colour / odour: Small spherical opaque granules with slight hydrocarbon odour.

pH: Not App

Vapour Pressure (20°C): 430 mm Hg

Vapour Density: 2.5 (Air =1) (Pentane)

Boiling Point (°C): Not App

Melting Point (°C): Not App

Solubility in water: Insoluble

Specific Gravity (°C): 0.91-1.01 @ 25°C

Flammability Limits (%): 1.4-8.3% by vol in air
(pentane)

Autoignition Temp (°C): 260 deg C (pentane)
" 471 deg C (EPS) Method: ASTM D-1929

Evaporation Rate (n-Butyl acetate =1): Not App

Octanol/ water partition coefficient: Not App

Decom p. Point (°C): Not App

Flash Point (°C): < -40 (Closed Cup)

Percent Volatiles: 5-8 % by wt.

Solubility in organic solvents: Soluble in hydrocarbons, esters and ketones; insoluble in alcohols.

Odour Threshold: 119 – 1147 ppm (Pentane)

(Typical values only- consult specification sheet)

N Av= Not Available N App – Not Applicable

10. STABILITY AND REACTIVITY

Chemical stability:

The product is stable under the normal conditions of storage and transport.

Conditions to avoid:

Store away from sources of strong heat or flame. Keep away from strong oxidising agents.

Incompatible materials:

Keep away from strong oxidising agents.

Hazardous decomposition products:

Incomplete combustion may produce carbon monoxide and other toxic gases.

Hazardous reactions:

None Known

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

HEALTH EFFECTS

Acute- Swallowed:

No significant effects expected.

Acute-Eye:

No significant effects expected. Dust from sanding or cutting may be a physical eye irritant. Hot wire cutting may generate fumes which are irritating to the eyes.

Acute-Skin:

No significant effects expected.

Acute-Inhalation:

Dust from sanding and cutting operations on foam mouldings may cause mild irritation to the eyes and upper respiratory tract. Hot wire cutting may generate thermal decomposition products (fumes) which are irritating to the eyes and nose.

Chronic:

No chronic health effects for this material have been reported.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Not Available

Persistence/ degradability:

Non hazardous waste. Polystyrene is stable when buried in soil but is slowly degraded by sunlight. Can be used as a soil conditioner.

Mobility:

Floats on water

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Non hazardous waste. Polystyrene is stable when buried in soil but is slowly degraded by sunlight. If feasible recycle. Can be used as a soil conditioner. Dispose of waste in an approved landfill.

Special precautions for landfill or incineration:

None.

14. TRANSPORT INFORMATION

Road and Rail Transport (ADG Code)

This material is not classified as a Dangerous Goods according to the ADG code.

15. REGULATORY INFORMATION

Country/ Region	Inventory	Status
Australia	AICS	Listed

Poisons schedule:

None Allocated

16. OTHER INFORMATION

Reason(s) for Issue:

Change to NOHSC 16-part format.

Abbreviations:

AICS:	Australian Inventory of Chemical Substances
IERG:	Initial Emergency Response Guide (SAA/ NZS HB: 76)
IMDG Code:	International Maritime Dangerous Goods Code
IATA Regulations:	International Air Transport Association Regulations
NOHSC:	National Occupational Health and Safety Commission Australia

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