

MATERIAL SAFETY DATA SHEET

NOMACO, INC.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Foam Plastics
Product Codes : All polyolefin products
Chemical Family..... : Polyolefin Thermoplastics
Formula: Not Applicable
Prepared Date..... : November 1, 1996
Revised Date..... : August 6, 2008

MANUFACTURER: EMERGENCY TELEPHONE NUMBERS:
Nomaco, Inc. Transportation:
501 NMC Drive CHEMTREC: 800-424-9300
Zebulon, NC 27597 Non-Transport: 919 269-6500

2. COMPOSITION/INFORMATION ON INGREDIENTS

Polyethylene CAS # 009002-8804 75-100%

HAZARDOUS INGREDIENTS:

<u>INGREDIENT NAME</u> <u>(CAS NUMBER)</u>	<u>EXPOSURE LIMITS</u>	<u>Wt. %</u>
Isobutane (000075-28-5)	800 ppm TWA (ACGIH)	
Carbon Black (1333-86-4)	3.5 mg/m ³ (ACGIH)	0 - 5%
Antimony (7440-36-0)	0.5 mg/m ³ (ACGIH)	0 - 5%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

A flammable hydrocarbon gas is used as a blowing agent in Polyethylene and Polyolefin Foam. Residual amounts of this flammable gas may remain in the product at the time of shipment and can accumulate at hazardous concentrations above the Lower Flammable Limit (LFL) if this product is stored in confined or closed areas. Adequate ventilation of the product is required to prevent the accumulation of hazardous concentrations of flammable vapors or dust. Grinding, sawing, cutting, and other fabrication or reprocessing activities may release residual flammable vapors that could ignite or form combustible atmospheres. Smoking, open flames and high temperatures could ignite flammable vapors and thus should not be allow in foam shipping, storage, fabrication or reprocessing areas. For further information consult the Shipping, Storage, and Handling Guidelines and Fabrication and Reprocessing Guidelines that can be found at www.nomaco.com or by contacting the Nomaco Corporate EH&S Manager at 919-269-6500.

POTENTIAL HEALTH EFFECTS:

EYE : Dust may cause irritation or eye injury due to mechanical action. Fumes/vapors emitted during hot-wire cutting may cause eye irritation.

SKIN..... : Non-irritating to skin. Skin absorption is unlikely.

INHALATION..... : Dust may cause irritation to the nose, throat and lungs. Fumes/vapors generated during hot-wire cutting may cause respiratory irritation. Concentrations of the isobutane blowing agent incidental to proper handling of the product are expected to be well below the ACGIH recommended exposure limit of 800 ppm.

INGESTION : None determined

SYSTEMIC EFFECTS
(OTHER TARGET ORGANS) : None determined

CARCINOGENICITY:
NTP : Not listed
IARC..... : Not listed

OSHA : Not regulated

MEDICAL CONDITIONS
AGGRAVATED BY EXPOSURE..... : None determined

4. FIRST AID MEASURES

EYE : Flush eyes with clean, lukewarm water (low pressure) occasionally lifting eyelids.

SKIN..... : Wash with soap and water.

INHALATION..... : Remove to fresh air. If not

breathing, give artificial respiration. Oxygen may be given by qualified personnel if breathing is difficult. Get medical attention.
INGESTION: Consult physician

5. FIRE FIGHTING MEASURES

FLASHPOINT..... : -117°F (isobutane)
METHOD USED..... : TOC
FLAMMABILITY LIMITS..... : LFL 1.8% by volume
UFL 8.4% by volume
(isobutane)
EXTINGUISHING MEDIA : Water
SPECIAL FIRE FIGHTING PROCEDURES : Full emergency equipment with pressure demand self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES : No special precautions are necessary. *This product is a non-hazardous waste when spilled or disposed of, as defined in Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261).*

7. HANDLING AND STORAGE

SPECIAL PRECAUTIONS : Flammable vapors of isobutane may be generated during unventilated storage of

large amounts of this product (for example, in storage trailers).

WARNING: To prevent the build-up of flammable vapors, do not store large quantities of this product in unventilated spaces including trailers. Ventilated trailers are recommended for transportation of bulk shipments of this product.

WARNING: To prevent potential fire or explosion, do not weld or apply intense heat to closed containers which contain this product. Open closed containers in a well ventilated area away from sparks or open flames.

WARNING: This product is combustible and should not be exposed to sparks or open flames. Large quantities of this product can burn rapidly and release toxic gases, including carbon monoxide.

WARNING: Fabrication methods involving cutting of large quantities of this product may release isobutane remaining in the foam cell structure. Provide adequate ventilation to ensure that isobutane concentrations remain below the ACGIH Threshold Limit Value (TLV) of 800 ppm and the Lower Flammable Limit of 1.8% in air by volume to protect workers and eliminate the possibility of developing flammable or hazardous concentrations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- ENGINEERING CONTROLS : Provide general and/or local exhaust ventilation to control airborne isobutane levels below the ACGIH TLV of 800 ppm.
- EYE PROTECTION REQUIREMENTS..... : Wear tight-fitting safety goggles if there is a potential for exposure to flying particles.
- SKIN PROTECTION REQUIREMENTS : No special precautions.
- RESPIRATORY PROTECTION REQUIREMENTS: No protection is required if isobutane levels are maintained below the ACGIH TLV of 800 ppm. For exposures above the TLV, take into consideration the type of application, environmental concentrations and materials being used concurrently when selecting a

respirator.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

EXPOSURE LIMITS..... : Not established for products as a whole. Refer to Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM..... : Flexible solid

ODOR : No odor. Residual isobutane is colorless, with a gasoline-like or natural gas odor. Butane is reported to be detectable by odor at a range of 1262-5048 ppm (AIHA, 1989).

VAPOR PRESSURE..... : Not applicable

VAPOR DENSITY : Not applicable

BOILING POINT..... : Not applicable

SOLUBILITY IN WATER..... : Insoluble

DENSITY..... : 0-35 lb/ft³

10. STABILITY AND REACTIVITY

STABILITY : This is a stable material.

HAZARDOUS POLYMERIZATION : Will not occur.

INCOMPATIBILITIES..... : Strong oxidizing agents.

DECOMPOSITION PRODUCTS..... : Carbon monoxide and other toxic gases are generated under combustion conditions.

11. TOXICOLOGICAL INFORMATION

See Section 3 for potential health effects.

12. ECOLOGICAL INFORMATION

This product is inert to the environment and is not expected to exhibit any significant biodegradation.

13. DISPOSAL CONSIDERATIONS

Waste may be reused, recycled or buried in an approved landfill. Follow all regulatory requirements for disposal.

14. TRANSPORTATION INFORMATION

DOT SHIPPING REQUIREMENTS..... : Not regulated
TECHNICAL SHIPPING NAME : Polyethylene plastic foam

15. REGULATORY INFORMATION

OSHA STATUS..... : This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, thermal processing and decomposition fumes/vapors from this product may be hazardous as noted in Sections 2 and 3.

CERCLA RQ : None

SARA TITLE III:
SECTION 302

EXTREMELY HAZARDOUS SUBSTANCES..... : None

SECTION 311/312 HAZARD CATEGORIES : Non-hazardous

SECTION 313

HAZARD CATEGORIES : None

RCRA STATUS..... : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic.

However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether the product should be

classified as a hazardous waste (40 CFR 261.20-24).

STATE RIGHT-TO-KNOW..... : The following product components are listed by certain states as hazardous substances noted below.

Isobutane : NJ1, NJ3, PA1

NJ1..... : New Jersey Special Health Hazard Substance

NJ3..... : New Jersey Workplace Hazard Substance

PA1 : Pennsylvania Hazardous Substance

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS : Health 0
Flammability 1
Reactivity 0

CANADIAN REGULATIONS : This product is not a "Controlled Product" under WHMIS.

California Proposition 65

This product may contain small percentages of chemical(s) known to the state of California to cause cancer and/or birth defects. All potential hazardous chemicals with concentrations in the final product greater than 0.1% by weight are listed in Section 2.

16. OTHER INFORMATION

PREPARED BY..... : EH&S

MSDS NUMBER : 001

NOTICE: Each Customer must determine whether the products discussed and the information contained in this document is appropriate for its use. **NO WARRANTIES ARE GIVEN: ALL EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.** It is the Customer's responsibility to ensure that workplace and disposal practices are compliant with any applicable laws. Information provided as a result of testing and analysis by Nomaco is accurate as of the date shown below. Conditions of use and applicable laws may change with time and differ from one location to another, therefore this information is subject to change without notice and Nomaco assumes no liability for use of or reliance upon this document. MSDS sheet are intended for occupational use only. This information does not constitute a license under any patent or other proprietary right.