

Product Name: Blended Bromobutyl

Emergency Phone Number: (330) 336-6616

MATERIAL SAFETY DATA SHEET

Goldsmith & Eggleton

SECTION I - Product Identification

Product Name: Blended Bromobutyl

Chemical Name: Brominated isoprene/isobutylene polymer

Chemical Family: Brominated isoprene/isobutylene polymer

CAS Number: 68441-14-5

This MSDS Prepared By: Gene Lukinac

Date: November 18, 2004 (Original February 7, 2002)

***(Change in specific gravity)

SECTION II - Hazardous Components

CAS number OSHA PEL ACGIH TLV Other

Ingredients Defined as Hazardous by OSHA, NTP or IARC Present at >1.00%

None

Ingredients Defined as Carcinogenic by OSHA, NTP or IARC Present at >0.10%

None

Note that this material does contain trace (part per billion level) amounts of tribromomethane, along with other low weight halogenated hydrocarbons. These levels are far below those which are required to be reported under 29 CFR 1910.1200. These are unavoidable residues from the process used to manufacture the polymer, and are not added by Goldsmith & Eggleton. There is no practical method for removing these residues, nor for avoiding their production during manufacture.

SECTION III - Physical/Chemical Properties

Boiling Point: not applicable

Vapor Pressure (mm Hg): negligible

Vapor Density (air = 1): not applicable

Solubility in water: negligible

Specific Gravity: approximately 0.92

Melt Point: not applicable

Evaporation Rate (butyl acetate = 1) : negligible

Appearance: white to yellow rubbery solid

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Odor: slight rubber odor

SECTION IV - Fire and Explosion Data

Flash Point: not determined

Explosion Limits: not applicable

LEL: not applicable

UEL: not applicable

Extinguishing media: Carbon dioxide or foam preferred.

Special Fire Fighting Procedures: Positive pressure or demand-type respirators, face shields or goggles, balaclavas, coats, gloves and boots are indicated. No skin should be exposed.

Unusual Fire and Explosion Hazards: Material will produce hydrogen bromide and related products while burning. **Upon contact with water or mucous membranes, such as eyes, mouth or lungs, hydrogen bromide will form hydrobromic acid, a strong acid comparable in its effects to hydrochloric acid.** Personnel should not be exposed to smoke from this material without proper respiratory gear. Material may produce thick sooty smoke while burning. Material may soften and drip or flow slowly in extreme heat, although it will not become a free-flowing liquid. Material may develop a thick ashy crust under certain conditions, which could hinder extinguishing media from reaching seat of fire if crust is not broken away.

SECTION V - Reactivity Data

Stability: Stable

Incompatibilities: Strong oxidizers, strong bases

Hazardous Decomposition Products: oxides of carbon, halocarbons and hydrogen halides

Hazardous Polymerization: will not occur

Conditions to Avoid: store in cool, dry area

SECTION VI - Health Hazard Data

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Primary Routes of Entry:

Inhalation: unlikely

Skin: common

Ingestion: unlikely

Health Hazards:

Acute: contact dermatitis

Chronic: contact dermatitis

Carcinogenicity: not determined

NTP Report?: no

IARC Monograph?: no

OSHA Regulated?: no

Signs or Symptoms of Exposure: Itching or reddening of skin.

Medical Conditions Generally Aggravated by Exposure: Exposure to material may aggravate pre-existing dermatitis.

Emergency First Aid Procedures:

Skin: Wash with soap and water. See a doctor if irritation develops.

Eyes: Wash eyes with copious amounts of cool water. Prevent rubbing or wiping of eyes. Transport victim to emergency room. Have copy of this document available for medical personnel.

Inhalation: Material cannot be inhaled under ordinary circumstances.

SECTION VII - Precautions for Safe Handling and Use.

Steps to be taken if material is released or spilled: Pick up spilled material. Clean and re-use spilled material or discard as deemed appropriate.

Waste disposal method: Dispose of unwanted material by recycling, landfilling, or other method in accordance with all applicable Federal, State and local ordinances.

Precautions to be taken in handling and storage: Low weight halocarbons left over from

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manufacturing process will slowly gas out of material as it sits. While these residual chemicals are present in the polymer at levels far below those required to be reported under CFR 29 1910.1200, a possibility exists for these substances to become concentrated in poorly-ventilated storage areas at levels in excess of those compatible with good safety practices. Among the factors which could influence the concentration of volatile halocarbons in a storage area are temperature, volume of the storage area, length of time in storage, amount of airflow, and airflow patterns. As all of these factors are outside the control of Goldsmith & Eggleton, it is impossible for us to predict what levels will be seen under your particular storage conditions. For these reasons, you are advised to store this material in a cool, well-ventilated area.

SECTION VIII - Control Measures

Respiration Protection: No special precautions needed.

Ventilation: Store in a cool, well-ventilated area.

Protective Gloves: Cotton, canvas or other work gloves

Eye Protection: No special precautions needed.

Other Protective clothing or equipment: No special precautions needed.

Other precautions: No special precautions needed.

SECTION IX - Emergency and First Aid Procedures

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Ingestion of Material: Ingestion is unlikely to occur under normal circumstances. If it should happen, transport victim to emergency room. Have copy of this document available for medical personnel.

Fire: Evacuate area, and call Fire Department. Material will produce hydrogen bromide and related products while burning. **Upon contact with water or mucous membranes, such as eyes, mouth or lungs, hydrogen bromide will form hydrobromic acid, a strong acid comparable in its effects to hydrochloric acid.** Personnel should not be exposed to smoke from this material without proper respiratory gear. Have copy of this document available for Fire Department personnel.

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Appendices

Abbreviations

ACGIH - American Council of Governmental Industrial Hygienists

DOT - Department of Transportation

EEC - European Economic Community

EPA - Environmental Protection Agency

IARC - International Agency for Research on Cancer

IDHL - Immediately Dangerous to Health and Life

LEL - Lower Explosive Limit

NFPA - National Fire Protection Association

NIOSH - National Institute of Safety and Health

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

REL - Recommended Exposure Limit

SARA - Superfund Amendment and Reauthorization Act

STEL - Short Term Exposure Limit

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

UEL - Upper Explosive Limit

User's Responsibilities

No MSDS, this one included, can anticipate all possible situations which the user may encounter when using this product. All aspects of your operation must be thoroughly examined to determine whether additional precautions might be necessary. All information contained in this MSDS should be made available to your employees and customers. It is the responsibility of the user to institute appropriate safety and work rules and employee instructional programs for your particular operation.

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