

1. Product and company identification

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|------------------------------------|--|
| Product name | : LANXESS BROMOBUTYL X2 |
| Supplier/Manufacturer | : LANXESS Corporation Product Safety & Regulatory Affairs 111 RIDC Park West Drive Pittsburgh, PA 15275-1112 USA |
| | For information: US/Canada (800) LANXESS International +1 412 809 1000 |
| <u>In case of emergency</u> | : Chemtrec (800) 424-9300 International (703) 527-3887 Lanxess Emergency Phone (800) 410-3063. |
| Synonym | : BIIR , Halobutyl Rubber |
| Material Number | : 04058232 |
| Chemical family | : Brominated Butyl Rubber |

2. Hazards identification

| | |
|---|--|
| Physical state | : Solid. [rubber bales] |
| Odor | : Odorless. |
| Color | : Yellowish. |
| Emergency overview | : CAUTION! NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. MAY CAUSE MECHANICAL IRRITATION (ABRASION). TOXIC AND IRRITATING GASES/FUMES MAY BE GIVEN OFF DURING BURNING OR THERMAL DECOMPOSITION. CONTACT WITH HOT MATERIAL WILL CAUSE THERMAL BURNS. This product contains trace levels of brominated hydrocarbons, such as bromoform and dibromomethylpropane, which originate from the bromination reaction. Objective data with personal monitoring indicates that these halo-organics may be released at concentrations below 2 ppb in the working atmosphere under normal processing/compounding conditions. The emissions are not expected to cause any adverse health effects to employees when exhaust ventilation standard to the industry is in operation. |
| Medical conditions aggravated by over-exposure | : None known. |

Potential acute health effects / Over-exposure signs/symptoms

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|-------------------|---|
| Inhalation | : Inhalation is unlikely due to the low vapor pressure. May cause mechanical irritation (abrasion). |
| Ingestion | : No known significant effects or critical hazards. |
| Skin | : May cause mechanical irritation (abrasion). Contact with hot material will cause thermal burns. |
| Eyes | : May cause mechanical irritation (abrasion). |

Potential chronic health effects

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| Chronic effects | : No known significant effects or critical hazards. |
| Carcinogenicity | : No carcinogenetic substances as defined by IARC, NTP and/or OSHA. |

3. Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

| <u>Name</u> | <u>CAS number</u> | <u>%</u> |
|-------------------------|-------------------|----------|
| No hazardous ingredient | | |

Other Ingredients:

| | | |
|-----------|---------------|-------|
| Isoprene | CAS# 78-79-5 | 10ppm |
| Isobutene | CAS# 115-11-7 | 10ppm |

4. First aid measures

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| Eye contact | : Check for and remove any contact lenses. In case of contact flush eyes with plenty of luke warm water. Get medical attention if symptoms occur. |
| Skin contact | : Wash with plenty of soap and water. Get medical attention if symptoms occur. Get medical attention if thermal burns occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Inhalation | : If inhaled, remove to fresh air. Get medical attention if symptoms occur. |
| Ingestion | : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| Notes to physician | : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |

5. Fire-fighting measures

Extinguishing media

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| Suitable | : In case of fire, use water spray (fog), foam or dry chemical. |
| Not suitable | : Carbon dioxide (CO ₂). |
| Special exposure hazards | : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. |
| Hazardous thermal decomposition products | : Decomposition products may include the following materials: carbon dioxide carbon monoxide |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

6. Accidental release measures

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| Personal precautions | : No action shall be taken involving any personal risk or without suitable training. |
| Spill and Leak Procedures. | : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. If molten, allow material to cool and put into an appropriate container for disposal. |

7. Handling and storage

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| Handling | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. |
| Storage | : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

7. Handling and storage

Storage temperature: : Do not store above the following temperature: 35°C

8. Exposure controls/personal protection

Isoprene (78-79-5)

U.S. Workplace Environmental Exposure Level (WEEL) Guides

Time Weighted Average (TWA): 2 ppm, 5.6 mg/m³

Isobutene (115-11-7)

U.S. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Engineering controls should be sufficient to ensure airborne levels do not approach or exceed the exposure limit value for residuals. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory

: Although no exposure limit has been established for this product, the OSHA PEL for Particulates Not Otherwise Regulated (PNOR) of 15 mg/m³ - total dust, 5 mg/m³ - respirable fraction is recommended. In addition, the ACGIH recommends 3 mg/m³ - respirable particles and 10 mg/m³ - inhalable particles for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS).

Hands

: When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product.

Eyes

: Safety glasses.

Skin

: Gloves, long sleeved shirts and pants.

9. Physical and chemical properties

Physical state : Solid. [rubber bales]

Flash point : Open cup: >210°C (>410°F) [Cleveland (ASTM D-92)]

Color : Yellowish.

Odor : Odorless.

Density : 0.93 g/cm³

Solubility : Insoluble in the following materials: cold water.

10. Stability and reactivity

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|---|--|
| Chemical stability | : The product is stable. |
| Conditions to avoid | : Keep away from heat and direct sunlight. |
| Materials to avoid | : No specific data. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Possibility of hazardous reactions | : Exposure to high temperatures causes exothermic reaction or decomposition. |

11. Toxicological information

No information available.

Sensitizer

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|------------|-----------------|
| BIIR , Halobutyl Rubber | skin | Guinea pig | Not sensitizing |

Carcinogenicity

| Product/ingredient name | CAS # | IARC | NTP | OSHA |
|-------------------------|-------|------|-----|------|
| - | | | | |

12. Ecological information

Aquatic ecotoxicity

No information available.

13. Disposal considerations

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|-------------------------------------|---|
| Waste disposal | : Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls. The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. |
| Empty Container Precautions. | : Recondition or dispose of empty container in accordance with governmental regulations. |
| RCRA classification | : : 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 a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24) |

14. Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|---------------------------|-----------|----------------------|---------|-----|-------|------------------------|
| DOT Classification | - | - | - | - | | Not regulated. |
| IMDG Class | - | - | - | - | | Not regulated. |
| IATA-DGR Class | - | - | - | - | | Not regulated. |

PG* : Packing group

14. Transport information

RQ : 0 lbs

15. Regulatory information

HAZCOM Standard Status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

SARA Section 311/312 Hazard Categories : None

| <u>Ingredient name</u> | <u>CAS number</u> | <u>Concentration (%)</u> |
|------------------------|-------------------|--------------------------|
|------------------------|-------------------|--------------------------|

SARA Title III Section 302 Extremely Hazardous Substances : None

| <u>Ingredient name</u> | <u>CAS number</u> | <u>Concentration (%)</u> |
|------------------------|-------------------|--------------------------|
|------------------------|-------------------|--------------------------|

SARA Title III Section 313 Toxic Chemicals : None

| <u>Ingredient name</u> | <u>CAS number</u> | <u>RQ</u> |
|------------------------|-------------------|-----------|
|------------------------|-------------------|-----------|

US EPA CERCLA Hazardous Substances (40 CFR 403) : None

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

The concentrations reported below are maximum values.

| <u>Ingredient name</u> | <u>CAS number</u> | <u>State Code</u> | <u>Concentration (%)</u> |
|---|-------------------|-------------------|--------------------------|
| 1,3-Butadiene, 2-methyl-, polymer with 2-methyl-1-propene, brominated | 68441-14-5 | | 60 - 100 |
| Fatty acids, C14-18 and C16-18-unsatd., calcium salts | 68424-16-8 | | 1 - 5 |
| Soybean oil, epoxidized | 8013-07-8 | | 1 - 5 |

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS

Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

Not available.

| <u>Ingredient name</u> | <u>CAS #</u> | <u>Concentration (%)</u> | <u>Cancer</u> | <u>Reproductive</u> |
|------------------------|--------------|--------------------------|---------------|---------------------|
| Methyl Chloride | 74-87-3 | <0.01 | Yes | Yes |
| Ethyl chloride | 75-00-3 | <0.01 | Yes | Yes |

U.S. Toxic Substances Control Act : Listed on the TSCA Inventory.

16. Other information

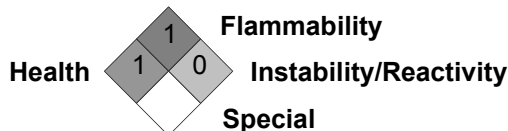
Hazardous Material
Information System

| | |
|------------------|---|
| Health | 0 |
| Flammability | 1 |
| Physical hazards | 0 |
| | |

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
*=Chronic

The customer is responsible for determining the PPE code for this material.

National Fire Protection
Association (U.S.A.)



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

LANXESS' method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

Contact person : Product Safety and Regulatory Affairs
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▣ Indicates information that has changed from previously issued version.

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