

BRUTE!

Product number: 123002



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name BRUTE!
Product number 123002
Company information Brulin & Company, Inc.
P.O. Box 270
Indianapolis, IN 46206 US
www.Brulin.com
Emergency CHEMTREC 1-800-424-9300
General information Phone: 317-923-3211
Fax: 317-925-4596

2. Hazards Identification

Emergency overview WARNING
Harmful by inhalation, in contact with skin and if swallowed. Prolonged exposure may cause chronic effects. May cause long-term adverse effects in the aquatic environment. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Potential health effects

- Eyes** Avoid contact with eyes. This product may cause irritation to the eyes.
- Skin** Prolonged skin contact may cause skin irritation.
- Inhalation** Prolonged or excessive inhalation may cause respiratory tract irritation.
- Ingestion** Do not ingest. Irritating to mouth, throat, and stomach.

3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|--|-----------|---------|
| 2-Butoxyethanol | 111-76-2 | < 40 |
| Ethanolamine | 141-43-5 | < 10 |
| D-Limonene | 5989-27-5 | < 1 |
| Non-hazardous and other components below reportable levels | | < > 60 |

4. First Aid Measures

First aid procedures

- Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
- Skin contact** Wash with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.
- Inhalation** Move to fresh air. If breathing is difficult, give oxygen.
- Ingestion** If conscious, drink plenty of water. Call a physician immediately.

Notes to physician Symptoms may be delayed.

General advice In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. Fire Fighting Measures

Flammable properties None known.

Extinguishing media

- Suitable extinguishing media** Dry chemical, CO2, water spray or regular foam.

BRUTE!

Product number: 123002

6. Accidental Release Measures

| | |
|----------------------------------|---|
| Personal precautions | Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. |
| Methods for containment | Stop the flow of material, if this is without risk. |
| Methods for cleaning up | Never return spills in original containers for re-use. Large Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. |

7. Handling and Storage

| | |
|-----------------|---|
| Handling | Do not breathe gas/fumes/vapor/spray. Avoid contact with skin and eyes. |
| Storage | Keep out of the reach of children. Keep at temperatures between 4 and 48°C. |

8. Exposure Controls / Personal Protection

| | |
|---------------------------------------|--|
| Engineering controls | Use general ventilation. |
| Personal protective equipment | |
| Eye / face protection | Goggles. or Safety glasses. |
| Skin protection | Wear impervious gloves for prolonged contact. |
| Respiratory protection | Not normally needed. A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical & Chemical Properties

| | |
|---|--|
| Appearance | clear liquid |
| Color | Yellow green |
| Odor | mild citrus and solvent |
| Odor threshold | Not available. |
| Form | Liquid. |
| pH | 12.8 |
| Freezing point | -94 °F (-70 °C) estimated |
| Boiling point | 212 °F (100 °C) |
| Flash point | > 200 °F (> 93.3 °C) Pensky-Martens Closed Cup |
| Evaporation rate | 1 |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Vapor density | 4 (2-Butoxyethanol) |
| Specific gravity | 0.986 |
| Solubility (water) | 100 % |
| VOC | 36 % |

10. Chemical Stability & Reactivity Information

| | |
|----------------------------|------------------------------|
| Chemical stability | Stable at normal conditions. |
| Conditions to avoid | Do not freeze. |

BRUTE!

Product number: 123002

| | |
|---|---|
| Incompatible materials | Strong oxidizing agents. Acids. |
| Hazardous decomposition products | At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Nitrogen oxides (NOx). |
| Possibility of hazardous reactions | Will not occur. |

11. Toxicological Information

| | |
|----------------------------|--|
| Acute effects | Acute LD50: 1554 mg/kg, Rat, Oral Acute LD50: 786 mg/kg, Rat, Dermal Acute LC50: 1607 mg/l/4h, Rat, Inhalation Eye irritation |
| Local effects | Toxic by inhalation, in contact with skin and if swallowed. Liver toxicity. Blood disorder may occur after ingestion. May cause sensitization by skin contact. |
| Chronic effects | Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. |
| Further information | Symptoms may be delayed. |

Carcinogenicity

IARC Monographs: Overall evaluation

2-Butoxyethanol (111-76-2)

3 Not classifiable as to carcinogenicity to humans.

D-Limonene (5989-27-5)

3 Not classifiable as to carcinogenicity to humans.

US ACGIH Threshold Limit Values: A3 carcinogen

2-Butoxyethanol (111-76-2)

A3 Confirmed animal carcinogen with unknown relevance to humans.

12. Ecological Information

| | |
|-------------------------|---|
| Ecotoxicity | Components of this product have been identified as having potential environmental concerns. |
| Aquatic toxicity | May cause long-term adverse effects in the aquatic environment. |

13. Disposal Considerations

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|------------------------------|---|
| Waste codes | D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] |
| Disposal instructions | Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Dispose of this material and its container at hazardous or special waste collection point. |

14. Transport Information

DOT

Basic shipping requirements:

| | |
|--------------------------------|--|
| Proper shipping name | Corrosive liquids, n.o.s. (2-Butoxyethanol, Potassium hydroxide RQ=769231 LBS) |
| Hazard class | 8 |
| UN number | UN1760 |
| Packing group | II |
| Additional information: | |
| Special provisions | B2, IB2, T11, TP2, TP27 |
| Packaging exceptions | 154 |
| Packaging non bulk | 202 |
| Packaging bulk | 242 |
| ERG number | 154 |

IATA

Basic shipping requirements:

| | |
|--------------------------------|---|
| Proper shipping name | Corrosive liquid, n.o.s. (2-Butoxyethanol, Potassium hydroxide) |
| Hazard class | 8 |
| UN number | UN1760 |
| Packing group | II |
| Additional information: | |
| Packaging exceptions | 154 |

BRUTE!

Product number: 123002

| | |
|---|------|
| Packaging instructions cargo only | 812 |
| Packaging non bulk | 202 |
| Packaging bulk | 242 |
| Maximum net quantity packaging | 1 L |
| Maximum net quantity packaging cargo only | 30 L |
| Labels required | 8 |
| ERG code | 8L |

IMDG

Basic shipping requirements:

| | |
|----------------------|---|
| Proper shipping name | CORROSIVE LIQUID, N.O.S. (2-Butoxyethanol, Potassium hydroxide) |
| Hazard class | 8 |
| UN number | UN1760 |
| Packing group | II |

Additional information:

| | |
|----------------------|-----|
| Packaging exceptions | 154 |
| Hazard ID | 80 |
| Item | C9 |
| Labels required | 8 |
| Transport Category | 2 |



DOT



IATA



IMDG

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA (Superfund) reportable quantity

2-Butoxyethanol: 1.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

| | |
|--------------------------|--|
| Hazard categories | Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No |
|--------------------------|--|

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

| | |
|----------------------------|---------|
| 2-Butoxyethanol (111-76-2) | Listed. |
| Ethanolamine (141-43-5) | Listed. |

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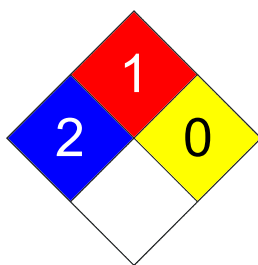
Product number: 123002

16. Other Information

HMIS rating

| | | |
|---------------------|---|---|
| Health | * | 2 |
| Flammability | | 1 |
| Physical Hazard | | 0 |
| Personal Protection | | B |

NFPA codes



Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Issue date

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