BRUTE!
Product number: 123002

SAFETY DATA SHEET

1. Identification

Product identifier: BRUTE!
Other means of identification:
- Product number: 123002
- Recommended use: Floor polish remover
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:
- Company name: BHC, Inc.
- Address: P.O. Box 270, Indianapolis, IN 46206, United States
- Telephone: Phone: 317-923-3211, Fax: 317-925-4596
- Website: www.Brulin.com

Emergency phone number: CHEMTREC 1-800-424-9300

2. Hazard(s) identification

Physical hazards: Flammable liquids
Health hazards:
- Acute toxicity, oral: Not classified
- Acute toxicity, dermal: Not classified
- Acute toxicity, inhalation: Not classified
- Skin corrosion/irritation: Category 1B
- Serious eye damage/eye irritation: Category 1
- Sensitization, skin: Category 1
- Specific target organ toxicity, single exposure: Category 3 respiratory tract irritation

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger
Hazard statement: Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation.
Precautionary statement

Prevention: Do not breathe mist or vapor. Use only in well-ventilated areas. Wear safety glasses with side shields (or goggles). Wear protective gloves. Wash hands thoroughly after handling.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
BRUTE!
Product number: 123002

Storage

Disposal
Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
None known.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>111-76-2</td>
<td>25 - &lt;30</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td></td>
<td>141-43-5</td>
<td>5 - &lt;10</td>
</tr>
<tr>
<td>d-Limonene (Terpene Hydrocarbon)</td>
<td></td>
<td>5989-27-5</td>
<td>1 - &lt;5</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td>1310-58-3</td>
<td>0.1 - &lt;1</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Keep victim under observation. Symptoms may be delayed.

Ingestion
Headache. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Most important symptoms/effects, acute and delayed
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance, if not at hospital. Continue flushing during transport to hospital. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

Indication of immediate medical attention and special treatment needed
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media
Alcohol resistant foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.
6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Use water spray to reduce vapors or divert vapor cloud drift.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

**Precautions for safe handling**
Do not mix with other chemicals. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not get this material on clothing. Avoid prolonged exposure. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

**Occupational exposure limits**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>PEL</td>
<td>240 mg/m3</td>
</tr>
<tr>
<td>Ethanolamine (CAS 141-43-5)</td>
<td>PEL</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
<tr>
<td>Ethanolamine (CAS 141-43-5)</td>
<td>STEL</td>
<td>6 ppm</td>
</tr>
<tr>
<td>Potassium hydroxide (CAS 1310-58-3)</td>
<td>TWA</td>
<td>3 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**
Eye wash facilities and emergency shower must be available when handling this product. Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection**

**Hand protection**
Wear appropriate chemical resistant gloves.

**Respiratory protection**
In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapor cartridge.
General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance
opaque
Physical state
Liquid.
Color
Yellow green
Odor
mild citrus and solvent
Odor threshold
Not available.
pH
12.8
Melting point/freezing point
32 °F (0 °C)
Initial boiling point and boiling range
212 °F (100 °C)
Flash point
> 200.0 °F (> 93.3 °C) Pensky-Martens Closed Cup
Evaporation rate
1
Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits
Flammability limit - lower (%)
Not available.
Flammability limit - upper (%)
Not available.
Explosive limit - lower (%)
Not available.
Explosive limit - upper (%)
Not available.

Vapor pressure
0.6 mm Hg @68°F (2-Butoxyethanol)
Vapor density
4 (2-Butoxyethanol)
Relative density
Not available.

Solubility(ies)
Solubility (water)
100 %
Partition coefficient
Not available.

Auto-ignition temperature
Not available.
Decomposition temperature
Not available.
Viscosity
Not available.

Other information
Explosive properties
Not explosive.
Oxidizing properties
Not oxidizing.
Specific gravity
0.99
VOC
36 % Less exempts and water

10. Stability and reactivity

Reactivity
Reacts with strong acids. This product may react with oxidizing agents.
Chemical stability
Material is stable under normal conditions.
Possibility of hazardous reactions
Hazardous polymerization does not occur.
Conditions to avoid
Avoid temperatures exceeding the flash point. Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials
11. Toxicological information

Information on likely routes of exposure

**Inhalation**
- May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

**Skin contact**
- Causes severe skin burns. May cause an allergic skin reaction.

**Eye contact**
- Causes serious eye damage.

**Ingestion**
- Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics

Headache. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRUTE!</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mist</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 7 mg/l/4h Mist</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**
- Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation**
- Causes serious eye damage.

**Respiratory or skin sensitization**

**Respiratory sensitization**
- Not a respiratory sensitizer.

**Skin sensitization**
- May cause an allergic skin reaction.

**Germ cell mutagenicity**
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
- Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

- 2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.
- d-Limonene (Terpene Hydrocarbon) (CAS 5989-27-5) 3 Not classifiable as to carcinogenicity to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens**
- Not listed.

- Not regulated.

**Reproductive toxicity**
- This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**
- May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**
- Not classified.

**Aspiration hazard**
- Not an aspiration hazard.

**Chronic effects**
- May be harmful if absorbed through skin. Prolonged inhalation may be harmful.
12. Ecological information

Ecotoxicity  Because of the high pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and degradability  No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
- 2-Butoxyethanol: 0.83
- d-Limonene (Terpene Hydrocarbon): 4.232
- Ethanolamine: -1.31

Mobility in soil  No data available.

Other adverse effects  The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions  Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations  Dispose in accordance with all applicable regulations.

Hazardous waste code  The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products  Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging  Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number  UN1760
UN proper shipping name  Corrosive liquids, n.o.s. (Ethanolamine, POTASSIUM HYDROXIDE)
Transport hazard class(es)
- Class: 8
- Subsidiary risk: -
- Label(s): 8
- Packing group: II

Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number  UN1760
UN proper shipping name  Corrosive liquid, n.o.s. (Ethanolamine, POTASSIUM HYDROXIDE)
Transport hazard class(es)
- Class: 8
- Subsidiary risk: -
- Label(s): 8
- Packing group: II
- Environmental hazards: No.
- ERG Code: 8L

Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.

Other information
- Passenger and cargo aircraft: Allowed with restrictions.
- Cargo aircraft only: Allowed with restrictions.
BRUTE!
Product number: 123002

IMDG

UN number: UN1760
UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Ethanolamine, POTASSIUM HYDROXIDE)
Transport hazard class(es):
- Class: 8
- Subsidiary risk: -
- Label(s): 8
- Packing group: II
Environmental hazards:
- Marine pollutant: No.
EmS
- Special precautions for user: Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
- Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
- Potassium hydroxide (CAS 1310-58-3) Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
- Not regulated.

CERCLA (Superfund) reportable quantity, lbs
- Potassium hydroxide: 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

Material name: BRUTE!
123002 Version #: 03 Revision date: 05-17-2017 Issue date: 01-09-2015
SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
No
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
2-Butoxyethanol (CAS 111-76-2)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date          01-09-2015
Revision date        05-17-2017
Version #            03

Disclaimer
BHC, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. 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.