



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product number** 043-003  
**Product name** **Ammoniated Glass Cleaner**  
**Effective date** 20-Jul-2011  
**Company information** Claire Mfg.  
1005 Westgate  
Addison, IL 60101 United States  
**Company phone** General Assistance 630-543-7600  
**Emergency telephone US** 800-424-9300  
**Emergency telephone outside US** 703-527-3887  
**Version #** 07  
**Supersedes date** 27-Jan-2011

## 2. Hazards Identification

**Emergency overview** Aerosol. CONTENTS UNDER PRESSURE.  
**Potential health effects**  
**Routes of exposure** Skin contact. Ingestion.  
**Eyes** Health injuries are not known or expected under normal use.  
**Skin** May be harmful if absorbed through skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.  
**Inhalation** Intentional misuse by concentrating and inhaling the product can be harmful or fatal.  
**Ingestion** Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.  
**Target organs** 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.  
**Chronic effects** Central nervous system. Lungs.  
Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin). May be harmful if absorbed through skin. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May cause delayed lung injury.  
**Signs and symptoms** Discomfort in the chest. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Coughing. Defatting of the skin. Skin irritation.

## 3. Composition / Information on Ingredients

| Components   | CAS #    | Percent |
|--|----------|---------|
| n-Butane   | 106-97-8 | 3 - 5   |
| 2-Butoxyethanol  | 111-76-2 | 3 - 5   |
| Propane  | 74-98-6  | 1 - 3   |
| Ethyl Alcohol  | 64-17-5  | 0.5 - 1 |
| Non-hazardous and other components below reportable levels |          | 80 - 90 |

## 4. First Aid Measures

### First aid procedures

**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. Get medical attention if irritation develops and persists.

**Skin contact** Wash off with warm water and soap. Get medical attention if irritation develops and persists.

**Inhalation**  
**Ingestion**

If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.  
If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Notes to physician**

Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## 5. Fire Fighting Measures

**Flammable properties**

Vapor or gas may spread to distant ignition sources and flash back. Not flammable by OSHA criteria. Not combustible by OSHA criteria.

**Extinguishing media**

**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Protection of firefighters**

**Protective equipment and precautions for firefighters**

In case of fire and/or explosion do not breathe fumes. Containers should be cooled with water to prevent vapor pressure build up.

## 6. Accidental Release Measures

**Methods for containment**

Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk.

**Methods for cleaning up**

Should not be released into the environment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

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

## 7. Handling and Storage

**Handling**

Pressurized container: Do not pierce or burn, even after use. Do not smoke while using or until sprayed surface is thoroughly dry. Do not use if spray button is missing or defective. Do not re-use empty containers. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.

**Storage**

Contents under pressure. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat, sparks and open flame. Avoid exposure to long periods of sunlight. Store in cool place. Keep container dry. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Level 1 Aerosol (NFPA 30B)

## 8. Exposure Controls / Personal Protection

**Exposure limits**

**ACGIH**

**Components**

**CAS #**

**TWA**

**STEL**

**Ceiling**

n-Butane

106-97-8

1000 ppm

Not established

Not established

2-Butoxyethanol

111-76-2

20 ppm

Not established

Not established

Propane

74-98-6

1000 ppm

Not established

Not established

Ethyl Alcohol

64-17-5

1000 ppm

1000 ppm

Not established

**OSHA**

**Components**

**CAS #**

**TWA**

**STEL**

**Ceiling**

2-Butoxyethanol

111-76-2

50 ppm

Not established

Not established

Propane

74-98-6

1000 ppm

Not established

Not established

Ethyl Alcohol

64-17-5

1000 ppm

Not established

Not established

**Personal protective equipment**

**Eye / face protection**

Chemical goggles are recommended.

**Skin protection**

Wear appropriate chemical resistant clothing. Chemical resistant gloves.

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

## 9. Physical & Chemical Properties

|                    |                                    |
|--------------------|------------------------------------|
| Appearance         | Compressed liquefied gas.          |
| Boiling point      | 203 °F (95 °C) estimated           |
| Color              | Clear.                             |
| Density            | 0.9482 g/cm <sup>3</sup> estimated |
| Flammability (HOC) | 4.0411 kJ/g estimated              |
| Flash back         | No                                 |
| Flash point        | -156 °F (-104.4 °C) estimated      |
| Form               | Aerosol.                           |
| Freezing point     | Not available                      |
| Odor               | Characteristic.                    |
| pH                 | 10 - 11                            |
| Physical state     | Liquid.                            |
| Pressure           | 60 - 80 psig @ 70F                 |
| Solubility         | Partially                          |
| Specific gravity   | 0.9483 estimated                   |

## 10. Chemical Stability & Reactivity Information

|                                  |   |
|----------------------------------|---|
| Chemical stability               | Risk of ignition. Material is stable under normal conditions. |
| Conditions to avoid              | Heat, flames and sparks.                                      |
| Incompatible materials           | None known.   |
| Hazardous decomposition products | Irritants.  |

## 11. Toxicological Information

Acute effects Acute LD50: 5836 mg/kg estimated, Rat, Dermal

### Component analysis - LD50

#### Toxicology Data - Selected LD50s and LC50s

|                 |          |   |
|-----------------|----------|---|
| 2-Butoxyethanol | 111-76-2 | Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg |
| Ethyl Alcohol   | 64-17-5  | Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h  |
| n-Butane        | 106-97-8 | Inhalation LC50 Rat 658 mg/L 4 h  |
| Propane         | 74-98-6  | Inhalation LC50 Rat 658 mg/L 4 h  |

Sensitization Not expected to be hazardous by OSHA criteria.

Carcinogenicity Hazardous by OSHA criteria. Risk of cancer cannot be excluded with prolonged exposure.

#### IARC - Group 1 (Carcinogenic to Humans)

|               |         |  |
|---------------|---------|--|
| Ethyl Alcohol | 64-17-5 | Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [in preparation] (in alcoholic beverages) |
|---------------|---------|--|

Teratogenicity Not expected to be hazardous by OSHA criteria.

## 12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

LC50 1871 mg/L estimated, Fish, 96.00 Hours,  
EC50 16158 mg/L estimated, Daphnia, 48.00 Hours,  
IC50 12323 mg/L estimated, Algae, 72.00 Hours,

## 13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 F

Disposal instructions Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container to hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001.

## 14. Transport Information

### Department of Transportation (DOT) Requirements

#### Basic shipping requirements:

|                         |                    |
|-------------------------|--------------------|
| Proper shipping name    | Consumer commodity |
| Hazard class            | ORM-D              |
| Subsidiary hazard class | None               |
| Additional information: |                    |
| Packaging exceptions    | 156, 306           |
| Packaging non bulk      | 156, 306           |
| Packaging bulk          | None               |

### IMDG

#### Basic shipping requirements:

|                         |          |
|-------------------------|----------|
| Proper shipping name    | AEROSOLS |
| Hazard class            | 2.1      |
| UN number               | 1950     |
| Additional information: |          |
| Packaging exceptions    | LTD QTY  |
| Item                    | 5F       |
| Labels required         | None     |
| Transport Category      | 2        |



### IATA

#### Basic shipping requirements:

|                         |                     |
|-------------------------|---------------------|
| Proper shipping name    | Aerosols, flammable |
| Hazard class            | 2.1                 |
| UN number               | 1950                |
| Additional information: |                     |
| Packaging exceptions    | LTD QTY             |
| Labels required         | 2.1                 |



## 15. Regulatory Information

### US federal regulations

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

#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

|                 |          |  |
|-----------------|----------|--|
| 2-Butoxyethanol | 111-76-2 | 1.0 % de minimis concentration (applies to R-(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub> -OR', where n = 1,2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230) |
|-----------------|----------|--|

### Occupational Safety and Health Administration (OSHA)

|                                     |     |
|-------------------------------------|-----|
| 29 CFR 1910.1200 hazardous chemical | Yes |
|-------------------------------------|-----|

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

|   |   |
|---|---|
| Section 302 extremely hazardous substance | No  |
| Section 311 hazardous chemical            | Yes   |
| Hazard categories (311/312)               | Immediate Hazard - Yes<br>Delayed Hazard - No<br>Fire Hazard - Yes<br>Pressure Hazard - Yes<br>Reactivity Hazard - No |

**Inventory status**

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| China                       | Inventory of Existing Chemical Substances in China (IECSC) | No                     |
| Europe                      | European Inventory of New and Existing Chemicals (EINECS)  | No                     |
| Europe                      | European List of Notified Chemical Substances (ELINCS)     | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)   | No                     |
| Korea                       | Existing Chemicals List (ECL)                              | No                     |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory              | Yes                    |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations****U.S. - Pennsylvania - RTK (Right to Know) List**

|                 |          |         |
|-----------------|----------|---------|
| 2-Butoxyethanol | 111-76-2 | Present |
| Ethyl Alcohol   | 64-17-5  | Present |
| n-Butane        | 106-97-8 | Present |
| Propane         | 74-98-6  | Present |

**16. Other Information****Further information**

HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

Health: 1  
Flammability: 2  
Physical hazard: 0

**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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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 in the sheet was written based on the best knowledge and experience currently available.

**MSDS sections updated**

This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by**

Regulatory Compliance