



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 043
Product name **Ammoniated Glass Cleaner**
Effective date 06-Mar-2008
Company information Claire Manufacturing
500 Vista Ave.
Addison, IL 60101 United States
Company phone General Assistance 1-630-628-3000
Emergency telephone US 800-424-9300
Emergency telephone outside US 703-527-3887
Version # 2.0
Supersedes date 25-Oct-2007

2. Hazards Identification

Emergency overview CONTENTS UNDER PRESSURE.
Aerosol. Pressurized container may explode when exposed to heat or flame.

OSHA regulatory status Harmful in contact with eyes. Prolonged exposure may cause chronic effects.
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

Eyes Contact may irritate or burn eyes. Eye contact may result in corneal injury.

Skin This product may be harmful if it is absorbed through the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause delayed lung damage.

Target organs Kidney.

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 Blood. Central nervous system. Liver. Respiratory system.
Unconsciousness. Conjunctiva. Liver injury may occur. Kidney injury may occur. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause delayed lung damage.

Signs and symptoms Discomfort in the chest. Corneal damage. Narcosis. Cyanosis. Liver enlargement. Jaundice. Conjunctivitis. Defatting of the skin. Irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
2-Butoxyethanol	111-76-2	3 - 5
Dimethyl Ether	115-10-6	3 - 5
Isobutane	75-28-5	3 - 5
Non-hazardous and other components below reportable levels		> 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. Get medical attention immediately.

Skin contact	Immediately take off all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops or persists.
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth. Get medical attention immediately. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Notes to physician	Symptoms may be delayed.
General advice	Call a physician if symptoms develop or persist.

5. Fire Fighting Measures

Flammable properties	Containers may explode when heated. Vapor or gas may spread to distant ignition sources and flash back.
Extinguishing media	
Suitable extinguishing media	Large Fires: Water spray, fog or regular foam. Small Fires: Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Containers should be cooled with water to prevent vapor pressure build up. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

6. Accidental Release Measures

Personal precautions	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable.
Methods for cleaning up	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. Do not handle or store near an open flame, heat or other sources of ignition. Use only in area provided with appropriate exhaust ventilation. Do not use if spray button is missing or defective. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure.
Storage	Level 1 Aerosol. Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Keep away from heat, sparks, and flame. Avoid exposure to long periods of sunlight. Store in cool place. Keep the container dry. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
2-Butoxyethanol	111-76-2	20 ppm	Not established	Not established
Isobutane	75-28-5	1000 ppm	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
2-Butoxyethanol	111-76-2	50 ppm	Not established	Not established

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection	Wear chemical goggles.
Skin protection	Protective gloves.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Compressed liquefied gas.
Color	Clear.
Odor	Characteristic.
Physical state	Liquid.
Form	Aerosol.
Flammability (HOC)	3.56 kJ/g estimated
Flash back	No
Pressure	55 - 65 psig @ 70F
Solubility	Partially
Flash point	-156 °F (-104.4 °C) estimated
Boiling point	203 °F (95 °C) estimated
Specific gravity	0.9568 estimated
pH	10 - 11

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known.
Hazardous decomposition products	May include oxides of nitrogen.

11. Toxicological Information

Acute effects	Acute LD50: 5851 mg/kg estimated, Rat, Dermal Acute LC50: 51 mg/l/4h estimated, Rat, Inhalation
Sensitization	Not expected to be hazardous by OSHA criteria.
Local effects	Contact may irritate or burn eyes. Liver toxicity. Blood disorder may occur after ingestion. Components of the product may be absorbed into the body through the skin.
Chronic effects	Hazardous by OSHA criteria. This product may be harmful if it is absorbed through the skin. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Subchronic effects	Kidney injury may occur. Blood disorder may occur after prolonged inhalation. Blood disorder may occur after prolonged skin contact.
Neurological effects	Hazardous by OSHA criteria.
Mutagenicity	Not expected to be hazardous by OSHA criteria.
Reproductive effects	Not expected to be hazardous by OSHA criteria.
Teratogenicity	Not expected to be hazardous by OSHA criteria.
Epidemiology	Hazardous by OSHA criteria.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicity	LC50 1706 mg/L estimated, Fish, 96.00 Hours, EC50 23887 mg/L estimated, Daphnia, 48.00 Hours, IC50 12284 mg/L estimated, Algae, 72.00 Hours, Components of this product have been identified as having potential environmental concerns.
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13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 F
Disposal instructions Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

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, flammable
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Item 5F
Labels required 2.1
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



15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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

2-Butoxyethanol 111-76-2 1.0 % de minimis concentration (applies to R-(OCH₂CH₂)_n-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)

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

Section 302 extremely hazardous substance No
Section 311 hazardous chemical Yes

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
Dimethyl Ether	115-10-6	Present
Isobutane	75-28-5	Present

16. Other Information**HMIS® ratings**

Health: 1*
 Flammability: 1
 Physical hazard: 0

Prepared by

Regulatory Compliance

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.

Issue date

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