MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number	826
Product name	**Oven Magic Oven and Grill Cleaner**
Effective date	31-Dec-2007
Company information	Brothers Mfg 2554 Como Avenue St Paul, MN 55108 United States
Company phone	General Assistance 651-646-1696
Emergency telephone US	800-424-9300
Emergency telephone outside US	703-527-3887
Supersedes date	13-Nov-2007

2. Hazards Identification

Emergency overview	CONTENTS UNDER PRESSURE. Aerosol. Pressurized container may explode when exposed to heat or flame. Corrosive. Causes skin and eye burns. Cancer hazard. Irritating to respiratory system. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Skin contact. Eye contact. Inhalation.
Eyes	This product causes eye burns. Risk of serious damage to eyes.
Skin	Causes skin burns. This product may be harmful if it is absorbed through the skin.
Inhalation	Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Causes burns. Irritating to respiratory system. Prolonged inhalation may be harmful.
Ingestion	Exposure by ingestion of an aerosol is unlikely. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May cause delayed lung damage.
Target organs	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans. Central nervous system. Respiratory system.
Chronic effects	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. Narcosis.
Potential environmental effects	Components of this product are hazardous to aquatic life.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Diethylene Glycol Monobutyl Ether	112-34-5	8 - 10
Sodium Hydroxide	1310-73-2	5 - 8
Propane	74-98-6	3 - 5
n-Butane	106-97-8	3 - 5
Monethanolamine	141-43-5	3 - 5
Crystalline Silica	14808-60-7	0.5 - 1
Non-hazardous and other components below reportable levels		60 - 80

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact	Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Ingestion	Have victim rinse mouth thoroughly with water. 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	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General advice	Immediate medical attention is required. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

5. Fire Fighting Measures

Flammable properties	Containers may explode when heated.
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	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
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.
Specific hazards	Fire may produce irritating, corrosive and/or toxic gases.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. 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	Should not be released into the environment. 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. 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. Do not breathe gas/fumes/vapor/spray. Do not get this material on clothing. Wear personal protective equipment. Avoid prolonged exposure.
Storage	Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Avoid exposure to long periods of sunlight. Keep out of the reach of children. Use care in handling/storage. Store at ambient temperature and atmospheric pressure.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Diethylene Glycol Monobutyl Ether	112-34-5	20 ppm	Not established	Not established
Sodium Hydroxide	1310-73-2	Not established	Not established	2 mg/m3
Propane	74-98-6	1000 ppm	Not established	Not established
n-Butane	106-97-8	1000 ppm	Not established	Not established
Monethanolamine	141-43-5	3 ppm	6 ppm	Not established
Crystalline Silica	14808-60-7	0.025 mg/m3	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Diethylene Glycol Monobutyl Ether	112-34-5	100 ppm	Not established	Not established
Sodium Hydroxide	1310-73-2	2 mg/m3	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
Monethanolamine	141-43-5	3 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 Do not get this material on clothing. Wear appropriate chemical resistant gloves. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA). When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygeine considerations Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance Compressed liquefied gas.
Color Colorless.
Odor Ammoniacal.
Physical state Liquid.
Form Aerosol.
Flammability (HOC) 17.12 kJ/g estimated
Flash back No
Pressure 61 - 71 psig @ 70F
Solubility Completely
Flash point -76 °F (-60 °C) estimated
Boiling point 381.2 °F (193.9 °C) estimated
Specific gravity 1.0082 estimated
pH 13 - 14

10. Chemical Stability & Reactivity Information

Chemical stability Stable at normal conditions.
Conditions to avoid Heat, flames and sparks.
Incompatible materials Nitromethane. Water.
Hazardous decomposition products May include oxides of oxides of carbon.

11. Toxicological Information

Acute effects
Acute LD50: 18409 mg/kg estimated, Rat, Oral
Acute LD50: 12919 mg/kg estimated, Rat, Dermal
Acute LC50: 189 mg/l/4h estimated, Rat, Inhalation
Causes burns.

Local effects
Irritating to respiratory system.

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.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

Carcinogenicity
Cancer hazard. Hazardous by OSHA criteria.

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.

Further information
Symptoms may be delayed.

12. Ecological Information

Ecotoxicity
LC50 703 mg/L estimated, Fish, 96.00 Hours,
EC50 811 mg/L estimated, Daphnia, 48.00 Hours,
IC50 687 mg/L estimated, Algae, 72.00 Hours,

Environmental effects
Harmful to aquatic life.

13. Disposal Considerations

Waste codes
D001: Waste Flammable material with a flash point <140 F
D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]

Disposal instructions
Contents under pressure. 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

IMDG

Basic shipping requirements:

Proper shipping name AEROSOLS, flammable, corrosive

Hazard class 2.1

UN number 1950

Additional information:

Packaging exceptions LTD QTY

Item 5FC

Labels required 2.1
+8

Transport Category 1

IATA

Basic shipping requirements:

Proper shipping name	Aerosols, flammable, containing substances in Class 8, Packing Group II
Hazard class	2.1
Subsidiary hazard class	8
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.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Sodium Hydroxide: 1000.0000

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)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
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 WARNING: This product contains a chemical known to the State of California to cause cancer.

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

Crystalline Silica	14808-60-7	Present
Diethylene Glycol Monobutyl Ether	112-34-5	Environmental hazard
Monethanolamine	141-43-5	Present
n-Butane	106-97-8	Present
Propane	74-98-6	Present
Sodium Hydroxide	1310-73-2	Environmental hazard

16. Other Information

HMIS® ratings
Health: 3*
Flammability: 2
Physical hazard: 0
Personal protection: X

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.

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