

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Code:** BGMSC  
**Product Name:** Brewguard Metal Safe Cleaner  
**Company Name:** Shepard Bros., Inc.  
 503 S. Cypress St.  
 La Habra, CA 90631  
**Phone Number:** +1 (562)697-1366  
**Web site address:** www.shepardbros.com  
**Emergency Contact:** CHEMTREC +1 (800)424-9300

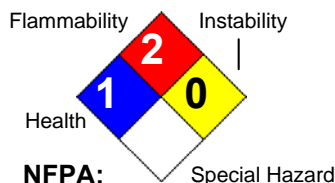
**2. HAZARDS IDENTIFICATION**

**Acute Toxicity: Inhalation, Category 4**  
**Skin Corrosion/Irritation, Category 3**  
**Serious Eye Damage/Eye Irritation, Category 2**



**GHS Signal Word:** **Warning**  
**GHS Hazard Phrases:** H332 - Harmful if inhaled.  
 H316 - Causes mild skin irritation.  
 H319 - Causes serious eye irritation.  
**GHS Precaution Phrases:** P271 - Use only outdoors or in a well-ventilated area.  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 - Wash hands thoroughly after handling.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
**GHS Response Phrases:** P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
 P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313 - If eye irritation persists, get medical advice/attention.  
 P332+313 - If skin irritation occurs, get medical advice/attention.  
**GHS Storage and Disposal Phrases:** No phrases apply.

**Hazard Rating System:**



**Potential Health Effects (Acute and Chronic):** Chronic: May cause liver and kidney damage. Sophisticated modeling has clearly proven that 2-butoxyethanol does not build up in the body under any kinds of normal use. May cause kidney injury. Repeated exposure may cause central nervous system damage. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), acidosis, and quick, shallow breathing.  
**Inhalation:** May be harmful if inhaled. May cause dizziness. May cause respiratory tract burns. May cause damage to the upper respiratory tract and lungs. May cause pulmonary edema.  
**Skin Contact:** May cause skin irritation. Can cause chemical burn.  
**Eye Contact:** May cause eye irritation. May cause burns to the eyes.



# SAFETY DATA SHEET

## Brewguard Metal Safe Cleaner

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**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause burns to the digestive tract. May cause kidney damage.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
111-76-2	Ethylene glycol monobutyl ether	<5.00 %
112-34-5	Diethylene glycol monobutyl ether	<5.00 %
34590-94-8	Dipropylene glycol methyl ether	<2.00 %

### 4. FIRST AID MEASURES

#### Emergency and First Aid

##### Procedures:

- In Case of Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Get medical attention immediately.
- In Case of Skin Contact:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Gently wash with plenty of soap and water. Wash contaminated clothing separately before reuse. Get medical aid if irritation develops or persists.
- In Case of Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do after 5 minutes and continue rinsing for an additional 15 minutes. Get medical aid if irritation develops or persists.
- In Case of Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
- Signs and Symptoms Of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Note to Physician:** Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

### 5. FIRE FIGHTING MEASURES

- Flash Pt:** 150 F (65.6 C) Method Used: Pensky-Marten Closed Cup
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** NA
- Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.
- Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear. Containers can build up pressure if exposed to heat (fire). Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts.
- Flammable Properties and Hazards:** High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide, and oxides of: sodium, phosphorus, potassium.



## 6. ACCIDENTAL RELEASE MEASURES

**Protective Precautions, Protective Equipment and Emergency Procedures:** Use proper personal protective equipment as indicated in Section 8.

**Environmental Precautions:** Do not let product enter drains, sewers, watersheds or water systems.

**Steps To Be Taken In Case Material Is Released Or Spilled:** Provide ventilation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Contain spill using an inert diking material. Transfer material into an approved container for possible recovery and reuse or for disposal. Neutralize residual product with a weak acid, such as acetic acid.

## 7. HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

**Precautions To Be Taken in Storing:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from sources of ignition. Keep away from oxidizing agents. Store in a tightly closed container. Keep container closed when not in use. Protect containers against damage.

**Other Precautions:** Handle in accordance with good industrial hygiene and safety practices. Keep out of reach of children.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
111-76-2	Ethylene glycol monobutyl ether	No data.	TLV: 25 ppm	No data.
112-34-5	Diethylene glycol monobutyl ether	No data.	TLV: 35 ppm	No data.
34590-94-8	Dipropylene glycol methyl ether	No data.	TLV: 100 ppm	No data.

**Respiratory Equipment (Specify Type):** Avoid breathing vapors and mists. Use a NIOSH/MSHA approved respirator, with a full-facepiece or a full-facepiece respirator with organic vapor cartridges when concentrations are unknown. Consult respirator manufacturer to determine appropriate type equipment for given application.

**Eye Protection:** Wear chemical splash goggles and a full-face shield where there is potential for eye contact.

**Protective Gloves:** Wear appropriate protective clothing to prevent skin exposure. Rubber or neoprene gloves.

**Other Protective Clothing:** Wear appropriate protective clothing to prevent skin exposure. Chemical resistant apron. Rubber boots.

**Engineering Controls (Ventilation etc.):** Use adequate mechanical or local exhaust ventilation to minimize exposure levels, particularly in areas where the air contacts open process equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Work/Hygienic/Maintenance Practices:** Handle in accordance with good industrial hygiene and safety practice.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid  
**Appearance and Odor:** Appearance: Transparent. Yellowish. Liquid.  
Odor: Mild solvent.  
**Melting Point:** < 32.0 F (0 C)  
**Boiling Point:** > 212 F (100 C)  
**Decomposition Temperature:** NA  
**Autoignition Pt:** NA  
**Flash Pt:** 150 F (65.6 C) Method Used: Pensky-Marten Closed Cup  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Specific Gravity (Water = 1):** 1.06  
**Density:** NA  
**Bulk density:** NA  
**Vapor Pressure (vs. Air or mm Hg):** NA  
**Vapor Density (vs. Air = 1):** NA  
**Evaporation Rate:** NA  
**Solubility in Water:** Complete  
**Saturated Vapor Concentration:** NA  
**Viscosity:** NA  
**pH:** 7.5 - 8.0  
**Percent Volatile:** NA  
**VOC / Volume:** NA  
**Particle Size:** NA  
**Heat Value:** NA  
**Corrosion Rate:** NA  
**Molecular Formula & Weight:** Proprietary Mixture 0.0

## 10. STABILITY AND REACTIVITY

**Reactivity:** High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide, and oxides of: sodium, phosphorus, potassium.  
**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** High temperatures, Ignition sources, Incompatible materials.  
**Incompatibility - Materials To Avoid:** Strong oxidizing agents, Strong acids, Alkaline materials.  
**Hazardous Decomposition Or Byproducts:** High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide, and oxides of: sodium, phosphorus, potassium, When a confined space entry must be made, even into an empty tank, be sure to follow all appropriate confined entry procedures.  
**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Reactions:** No data available.



## 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	Epidemiology: No information available. Teratogenicity: No information available. Reproductive Effects: No data available. Mutagenicity: No information available. Neurotoxicity: No data available. Other Studies: CAS# 111-76-2: Acute toxicity, LC50, Inhalation, Rat, 450.0 ppm, 4 H. Acute toxicity, LD50, Oral, Rat, 470.0 mg/kg Acute toxicity, LD50, Skin, Rabbit, 220.0 mg/kg.  Other Studies: CAS# 112-34-5: Acute toxicity, LD50, Oral, Rat, 5660 mg/kg.
<b>Irritation or Corrosion:</b>	Other Studies: CAS# 111-76-2: Standard Draize Test, Eyes, Species: Rabbit, 100.0 mg, 24 H.  Other Studies: CAS# 112-34-5: Standard Draize Test, Eyes, Species: Rabbit, 20.0 mg, 24 H.
<b>Carcinogenicity:</b>	NTP? No      IARC Monographs? No      OSHA Regulated? No

## 12. ECOLOGICAL INFORMATION

<b>General Ecological Information:</b>	In soil and water, this chemical is highly mobile and undergoes aerobic biodegradation.
<b>Results of PBT and vPvB assessment:</b>	Other Studies: CAS# 111-76-2: LC50, Water Flea (Daphnia magna), 1720 mg/l, 24 H, Intoxication LC50, Common Shrimp, Sand Shrimp (Crangon crangon), 775000 ug/l, 96 H, Mortality LC50, Amphipod (Chaetogammarus marinus), young organism(s), 1000 mg/l, 24 H, Mortality LC50, Carp (Leuciscus idus ssp. melanotus), 1575 mg/l, 48 H, Mortality Effective concentration to 0% of test organisms, Blue-Green Algae (Microcystis aeruginosa), 156000 ug/L, Population
<b>Persistence and Degradability:</b>	Physical: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere, diethylene glycol mono-n-butyl ether, which has a measured vapor pressure of 0.06 mm Hg at 25 deg C, will exist solely as a vapor in the ambient atmosphere. Vapor-phase diethylene glycol mono-n-butyl ether is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be about 10 hours. Alcohols and ethers do not absorb UV light in the environment. Other: Diethylene glycol mono-n-butyl ether is not expected to volatilize from water surfaces based on an estimated Henry's Law constant of $1.3 \times 10^{-8}$ atm-cu m/mole, calculated from experimental values for vapor pressure and water solubility.
<b>Bioaccumulative Potential:</b>	An estimated BCF value of 2.5 was calculated for ethylene glycol mono-n-butyl ether, using an experimental log Kow of 0.83 and a recommended regression-derived equation. According to a recommended classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.
<b>Mobility in Soil:</b>	TERRESTRIAL FATE: Based on a recommended classification scheme, an estimated Koc value of 67,, determined from an experimental log Kow and a recommended regression-derived equation, indicates that ethylene glycol mono-n-butyl ether is expected to have high mobility in soil.



### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.

### 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not Regulated.  
**DOT Hazard Class:**  
**UN/NA Number:**

### 15. REGULATORY INFORMATION

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
111-76-2	Ethylene glycol monobutyl ether	No	No	Yes-Cat. N230
112-34-5	Diethylene glycol monobutyl ether	No	No	Yes-Cat. N230
34590-94-8	Dipropylene glycol methyl ether	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
111-76-2	Ethylene glycol monobutyl ether	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8
112-34-5	Diethylene glycol monobutyl ether	TSCA: Yes - Inventory, 4 Test; CA PROP.65: No; CA TAC, Title 8: TAC
34590-94-8	Dipropylene glycol methyl ether	TSCA: Yes - Inventory, 4 Test, 8A PAIR; CA PROP.65: No; CA TAC, Title 8: Title 8

### 16. OTHER INFORMATION

**Revision Date:** 04/06/2015  
**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** Information presented herein is believed to be accurate and reliable to the best of our knowledge. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Users should make their own investigations to determine the suitability of the information for their particular purposes.