



## MATERIAL SAFETY DATA SHEET

### 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: GA60 CIRCULATING WASH  
 Product Code: GA60  
 MSDS Date: February 19, 2007

### 2: COMPOSITION, INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			PEL TWA	STEL	TLV	STEL
1	2-Propoxyethanol 2807-30-9	5 - 15	NE ppm	NE	NE	NE
2	Butoxydiethylene Glycol 112-34-5	85 - 95	NE		NE	

### 3: HAZARDS IDENTIFICATION

#### EMERGENCY RESPONSE INFORMATION

HAZARDS	HMIS	NFPA
Toxicity	1	1
Fire	2	2
Reactivity	0	0
Special	B	

RATING	DEGREE OF HAZARD
4	Extreme
3	High
2	Moderate
1	Slight
0	Insignificant

SPECIAL EQUIPMENT LEGEND			
A	Safety Glasses	F	C + Dust Mask
B	A + Gloves	G	B + Respirator
C	B + Apron	H	F + Goggles
D	C + Face Shield	I	B + Respirator
E	B + Dust Mask	X	Ask Supervisor

**Caution! Combustible liquid and vapor. Harmful if inhaled. High vapor concentrations may cause dizziness. May cause skin irritation. Causes eye irritation. Harmful or fatal if swallowed. Pulmonary aspiration hazard: can enter lungs and cause damage.**

#### HEALTH EFFECTS FROM OVEREXPOSURE

##### Primary Routes of Exposure

- Skin Contact
- Eye Contact
- Inhalation
- Ingestion

##### Eye Contact:

Direct contact with material can cause severe irritation, pain and transient injury.

##### Skin Contact:

Skin absorption of material may produce systemic toxicity. May cause irritation with prolonged or repeated contact. Removes natural oils and fats from skin.

##### Inhalation:



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Inhalation of mist or spray can cause irritation to nose, throat and lungs, and higher concentrations may cause headaches, nausea, dizziness, drowsiness and other central nervous system effects.

**Ingestion:**

This material is low to moderately toxic. It may cause headache, dizziness, gastrointestinal distress, metabolic acidosis, liver and kidney injury.

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#### **4: FIRST AID MEASURES**

**Inhalation:**

Remove subject to fresh air. Keep subject at rest. If not breathing, give artificial respiration. Obtain medical assistance.

**Eye Contact:**

Immediately flush eyes with a large amount of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Consult a physician.

**Skin Contact:**

Wash affected skin areas thoroughly with soap and water for 15 minutes until no odor remains. If redness or swelling develops, consult a physician. Immediately remove contaminated clothing and wash before reuse.

**Ingestion:**

**NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.** Have person drink several glasses of water, then induce vomiting by having person tickle back of throat with finger. Keep airway clear. Keep subject at rest. Obtain Emergency Medical Attention.

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#### **5: FIRE FIGHTING MEASURES**

**FIRE AND EXPLOSIVE PROPERTIES:**

Flash Point:	176°F TCC = 80°C
Auto-ignition Temperature:	455°F = 235°C
Lower Explosion Limit:	1.2% Volume
Upper Explosion Limit:	15.8% Volume

**Unusual Hazards:**

Combustible liquid; will release invisible vapors that form combustible mixtures that might ignite or explode. Vapors can travel considerable distances to an ignition source and flash back. Toxic gasses will form upon combustion. Material will dissolve in water.

**Extinguishing Agents:**

Water spray, regular foam, dry chemical, carbon dioxide are appropriate. Use extinguishing media appropriate for surrounding media. Avoid spraying water directly into storage containers due to danger of boilover. Use water spray to cool adjacent fire exposed containers to avoid rupture and spattering.

**Personal Protective Equipment:**

Keep personnel removed and upwind. As in any fire, wear self contained breathing apparatus (pressure demand, MSHA/NIOSH approved or equivalent) and full protective gear.

**Special Procedures:**

None.

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#### **6: ACCIDENTAL RELEASE MEASURES**



**Personal Protection:**

Appropriate protective equipment must be worn when handling a spill of this material. See the **PERSONAL PROTECTION MEASURES** Section for recommendations. If exposed to material during clean-up operations, see the **FIRST AID PROCEDURES** Section for appropriate actions.

**Procedures:**

Prevent ignition; stop leak; ventilate area; keep spectators away; contain spill immediately with inert noncombustible materials (e.g. sand, earth, absorbent). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

**CAUTION:** Keep spills and cleaning runoff out of municipal sewers, watercourses and open bodies of water. Use water spray to disperse vapors.

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## **7: HANDLING AND STORAGE**

**Handling:**

Avoid contact with skin, eyes or clothing. Avoid breathing of mist or vapor. Never siphon by mouth.

Remove and wash contaminated clothing before reuse.

Practice good personal hygiene: Wash after handling; shower at end of work period.

**Storage Conditions:**

Keep away from heat, sparks and open flame. Protect from storage temperatures above 140°F.

Keep in a well ventilated space. Consult NFPA and OSHA codes. Transfer operations must be electrically grounded.

Keep Out of Reach of Children.

Store upright in original closed container.

"Empty" containers retain product residue (liquid and/or vapor) that can be dangerous. Do NOT pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity or other sources of ignition due to explosion or fire hazard. Empty drums should be completely drained and properly bunged and promptly returned to a reconditioner or other proper disposal.

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## **8: EXPOSURE CONTROLS, PERSONAL PROTECTION**

**Respiratory Protection:**

A respiratory program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Use of this product does not require respiratory protection under normal operating conditions but use of local exhaust ventilation is recommended, especially for confined spaces.

**Eye Protection:**

Wear chemical splash goggles (ANSI Z87.1 or approved equivalent), or full face shield.

**Hand Protection:**

Wear gloves resistant to solvent permeation: butyl rubber, neoprene, nitrile, polyvinyl alcohol, viton.

**Other Protection:**

None required.

### **FACILITY CONTROL MEASURES:**

**Ventilation:**

Use with adequate ventilation. Local exhaust ventilation is recommended.

**Other Protective Equipment:**

Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.



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## 9: PHYSICAL AND CHEMICAL PROPERTIES

### TYPICAL

State	Liquid
Appearance	Clear
Color	Colorless
Odor	Characteristic distinctive glycol ether
Viscosity	Thin < 5 cSt @ 25°C = 77°F
pH as is	Slightly acidic in water
Specific Gravity @ 60°F	0.952
Density @ 60°F	7.93 Lbs/Gal
Vapor Density (Air = 1)	3.6
Vapor Pressure	1.3 mm Hg @ 20°C = 68°F
Freezing Point	-90°C = -130°F
Boiling Point	149°C = 301°F
Solubility in Water	completely miscible
Percent Volatility	100%
Evaporation Rate (BAc = 1)	0.22 Approximate
VOC %	100% = 7.93 Lbs/Gal
HAP %	100% = 7.93 Lbs/Gal

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## 10: STABILITY AND REACTIVITY

### Instability:

This material is considered stable.

### Hazardous Decomposition Products:

There are no known hazardous decomposition products for this material except for Carbon Dioxide, Carbon Monoxide if burned.

### Hazardous Polymerization:

This product will not undergo polymerization.

### Incompatibility:

This product is not compatible with strong acids and strong oxidizing agents.

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## 11: TOXICOLOGICAL INFORMATION

### Acute:

May cause moderate irritation with injury to the eyes. Ingestion may produce signs on intoxication, characterized by drowsiness, headache, nausea, and metabolic acidosis.

### Chronic:

Prolonged exposures to high concentrations in air may result in the inhalation of harmful amounts. Acidosis and changes in kidney and liver may occur.

Eye irritation: Conjunctival irritation and transient injury.

Skin irritation: Prolonged contact removes skin oils.

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## 12: ECOLOGICAL INFORMATION

Toxic to fish and food organisms.

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## 13: DISPOSAL CONSIDERATIONS

Procedure:



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Incinerate liquid and contaminated solids in accordance with local, state and federal regulations.

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## 14: TRANSPORTATION INFORMATION

Proper Shipping Name: Combustible Liquid, n.o.s. [In containers of less than 119 Gal]

Contains: 2-Propoxyethanol

Hazard Class: Combustible Liquid

Identification No.: NA1993

Packing Group: III

Label: Combustible Liquid

Emergency Response Guide No.: 27 / 128

RQ: None

National Motor Freight Classification 65

## 15: REGULATORY INFORMATION

### WORKPLACE CLASSIFICATIONS

This product is considered to be hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product is a 'controlled' product under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Status is not available.

### EMERGENCY PLANNING AND COMMUNITY RIGHT - TO KNOW (SARA TITLE III)

#### Section 311/312 Categorizations (40 CFR 370)

This product is a hazardous material under 29 CFR 1910.1200, and therefore is covered by Title III of SARA and is classified into the following hazard categories:

Immediate (Acute) Health

Delayed (Chronic) Health

Fire

#### Section 313 Information (40 CFR 372)

This product is a chemical which is listed in Section 313 at or above the de minimis concentrations.

Glycol ethers 100%

#### CERCLA INFORMATION (40 CFR 302.4)

Releases of this material to air, land or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

#### RCRA INFORMATION

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33.

#### CHEMICAL CONTROL LAW STATUS

All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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## 16: OTHER SUPPLEMENTAL INFORMATION



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**ABBREVIATIONS**

<b>ACGIH</b>	<b>American Conference of Governmental Industrial Hygienists</b>
<b>OSHA</b>	<b>Occupational Safety and Health Administration</b>
<b>TLV</b>	<b>Threshold Limit Value</b>
<b>PEL</b>	<b>Permissible Exposure Limit</b>
<b>TWA</b>	<b>Time Weighted Average</b>
<b>STEL</b>	<b>Short Term Exposure Limit</b>
<b>BAc</b>	<b>Butyl acetate</b>
<b>NE</b>	<b>Not Established</b>
<b>ND</b>	<b>Not Determined</b>
<b>NA</b>	<b>Not Applicable</b>

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