HMIS HEALTH	**2**
HMIS FLAMMABILITY	**0**
HMIS REACTIVITY	**1**
PERSONAL PROTECTION	**H**

Section 1: Product and Company Identification

Gulf Engineering Co. LLC
611 Hill Street
Jefferson, LA 70121
Business: (800) 347-4749
Technical: (504) 602-1824

Product Name: Gessco™ 333*
Generic Name: Aqueous solution of phosphonate, molybdate, triazole
Synonyms: NA
Product Description: Cooling water treatment
CAS # NA - blend
Date of Revision: 06/19/2006

The fourth digit of the product number designates the container size:
Gessco™ 333-0 - 15 gallon
Gessco™ 333-1 - 5 gallon
Gessco™ 333-2 - 30 gallon
Gessco™ 333-3 - 55 gallon
Gessco™ 333-7 -330 gallon

24-Hour Emergency Phone Number: (800) 424-9300 (CHEMTREC)

Section 2: Hazard Identification

Emergency Overview: Appearance: clear, pale yellow or colorless liquid liquid. Flash Point: Not flammable. Danger! Corrosive. Causes severe digestive and respiratory tract burns. Causes severe eye and skin burns. Harmful if swallowed or inhaled.

OSHA Regulatory Status: This material **is** considered hazardous under the OSHA standard.

Potential Health Effects:
Inhalation: Respiratory tract irritant, may cause serious burns on acute contact.

Ingestion: Toxic. Corrosive to mucous membranes and may cause perforation of the esophagus and stomach. Abdominal pain, nausea, vomiting, general gastro-intestinal upset can be expected.

Skin Contact: Irritant, possibly corrosive if contact is prolonged. Soreness, redness, damage to skin may result.

Eye Contact: Irritant or corrosive to eye tissues. Tearing, redness, pain, impaired vision are symptoms.

Chronic Exposure: Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported. Continued irritation may lead to increased susceptibility to respiratory illness.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

Target Organs: Eyes, skin, respiratory system, mucous membranes

Section 3: Composition / Information On Ingredients

Component	CAS #	Weight %	OSHA PEL	ACGIH TLV
Potassium hydroxide	1310-58-3	2 – 4	2 mg/m^3	2 mg/m^3
Sodium molybdate	7631-95-0	1 – 3	1 ppm; 5 mg/m^3	1 ppm; 5 mg/m^3
Sodium tolyltriazole	64665-57-2	0.5 – 2	None	None
Sodium hexametaphosphate	10124-56-8	1 – 3	None	None
Hydroxyphosphonic acetic acid	23783-26-8	1 – 3	None	None

Non-hazardous components may or may not be listed. Carcinogens are listed when present at 0.1% or more; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or more. This is not intended to be complete compositional disclosure. See Section 15 for applicable states right to know and other regulatory information.

Section 4: First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physicians: NA

Section 5: Fire Fighting Measures

Fire: Aqueous solution, not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Precautions: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

NFPA Rating: Health - 2 Flammability - 0 Reactivity - 1 Other - NA

Section 6: Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container.

Section 7: Handling and Storage

Protect container against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not attempt to clean empty containers since residue is difficult to remove.

Section 8: Exposure Control / Personal Protection

Exposure Guidelines: CAS # 1310-58-3: OSHA PEL 2 mg/m^3 ACGIH TLV 2 mg/m^3
CAS # 7631-95-0: OSHA PEL 1 ppm; 5 mg/m^3 ACGIH TLV 1 ppm; 5 mg/m^3

Personal Protective Equipment:
Skin Contact: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Contact: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Inhalation: Use NIOSH approved vapor respirator if exposure is unknown or exceeds permissible limits. A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Section 9: Physical and Chemical Properties

Appearance	Clear, pale yellow liquid	Specific Gravity (g/mL)	1.08
Odor	Mild	pH	12.4
Odor Threshold	ND	Solubility in water	Complete
Melting Point	-5°C (23°F)	% Volatiles	ND
Boiling Point	106°C (221°F)	Evaporation Rate	ND
Flash Point	NA	Vapor Pressure	6 mm @ 23°C
Lower Explosive Limit	NA	Vapor Density (air = 1.0)	ND
Upper Explosive Limit	NA	Viscosity	ND
Auto-Ignition Temperature	ND	log (Part. Coeff oct-H_2O)	ND
Decomposition Temp	ND		

Section 10: Stability and Reactivity

Chemical Stability: Stable under ordinary conditions of use and storage
Hazardous Decomposition Products: May form carbon oxides, nitrogen oxides, hydrocarbons, amine vapors and ammonia when heated to decomposition
Hazardous Polymerization: Will not occur
Incompatibilities: Strong acids
Conditions to Avoid: Heat, flames and incompatibles

Section 11: Toxicological Information

Acute Dose Effects:
Potassium hydroxide: Eye Irritation Data(Rabbit, non-std test,1 mg/24 H, rinse): Moderate; Skin Irritation Data (std Draize, 50 mg/24 H): Human, Severe; Rabbit, Severe; Oral rat LD50: 273 mg/kg.

Sodium molybdate (anhydrous): Oral-Rat LD50; 570 mg/kg; subcutaneous-mouse LD50; 917 mg/kg; >2080 mg/m^3/4 hours; inhalation-rat LC50; 4000 mg/kg

Section 12: Ecological Information

Environmental Fate: No information found.

Ecotoxicity: No information found.

Section 13: Disposal Considerations

As a waste, this product as sold IS NOT considered a HAZARDOUS WASTE under RCRA (29 CFR 261).

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14: Transport Information

Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
DOT Hazard Class: 8
UN Number: UN3266
Packing Group: II
Label: CORROSIVE
CERCLA Reportable Quantity (RQ): 31,746 lb (3529 gal) based on Potassium hydroxide
Releases exceeding the reportable quantity (RQ) must be reported to the National Response Center **(800) 424-8802**.

This data provided for information only. The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate regulations to properly classify your shipment for transportation.

Section 15: Regulatory Information

TSCA Chemical Inventory: All of the chemicals in this product are listed on the TSCA Inventory.

TSCA Sec 4 Chemical Test Rule: None of the chemicals in this product are under a Chemical Test Rule.

TSCA Sec 8(d): None of the chemicals in this product are on the Health and Safety Reporting List.

TSCA Sec 12(b) Notices of Export: None of the chemicals in this product are on this list.

TSCA Significant New Use Rule (SNUR): None of the chemicals in this product are on this list.

SARA Sec 302 (EHS) TPQ: None of the chemicals in this product have a TPQ.

SARA Sec 304 (EHS) RQ: None of the chemicals in this product have a RQ.

SARA Sec 311/312: **Acute** – YES; **Chronic** – NO; **Fire** – NO; **Release of Pressure** – NO; **Reactivity** – NO

SARA 313 List: No chemicals in this product are reportable under Section 313 Title III and 40 CFR Part 372

CERCLA Hazardous Substances and corresponding RQs: Potassium hydroxide: 31,746 lbs (3529 gal) of product.

RCRA: None of the chemicals in this product are on this list.

Clean Air Act: **Hazardous Air Pollutants?** NO **Class 1 Ozone Depletors?** NO **Class 2 Ozone Depletors?** NO

Clean Water Act: **Hazard Substance?** CAS # 1310-58-3 **Priority Pollutant?** NO **Toxic Pollutant?** NO

Chemical Weapons Convention: None of the chemicals in this product are on this list.

Drug Enforcement Agency (DEA) CDTA: None of the chemicals in this product are on this list.

OSHA: None of the chemicals in this product are considered Highly Hazardous by OSHA.

FDA: NA

State Right-to-Know Lists: Potassium hydroxide is found on the Right-to-Know lists of California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts. Sodium molybdate is listed on the Right-to-Know list of Minnesota. Sodium hexametaphosphate is found on the Right-to-Know lists of New Jersey, Pennsylvania and Massachusetts.

Section 16: Other Information

Abbreviations and acronyms used:

ACGIH	American Congress of Governmental Industrial Hygienists
ANSI	American National Standards Institute
atm	atmosphere (pressure unit)
BOD	biological oxygen demand
CAS	Chemical Abstracts Service
CC	closed cup
CDTA	Chemical Drug and Trafficking Act
COC	Cleveland Open Cup
COD	chemical oxygen demand
coeff.	coefficient
CFR	Code of Federal Regulations
CPR	cardio-pulmonary resuscitation
DEA	Drug Enforcement Agency
DOT	Department of Transportation
FDA	Food and Drug Administration
IARC	Internat'l Agency for Research on Cancer
IDLH	immediate danger to life and health
kg	kilogram
L	liter
LC50	median lethal concentration
LD50	median lethal dose
LEL	lower explosive limit
mg	milligram
mL	milliliter
NA	not applicable, not available
NIOSH	National Institute for Occupational Safety and Health
ND	not determined
NFPA	National Fire Prevention Association
NTP	National Toxicology Program
OC	open cup
OSHA	Occupational Safety and Health Administration
Part	partition
PEL	permissible exposure limits
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
psi	pounds per square inch
RCRA	Resource Conservation and Recovery Act
RQ	Reportable quantity
RTK	Right to Know
SARA	Superfund Amendments and Reauthorization Act
STEL	short-term exposure limit
TCC	Tagliabue Closed Cup
TPQ	threshold planning quantity
TQ	threshold quantity
TSCA	Toxic Substances Control Act
TWA	time-weighted average
UEL	upper explosive limit

This document was prepared in accordance with 29 CFR 1910.1200 and ANSI Z400.1-2005.

Prepared by Douglas R. Chrisope on June 19, 2006.

REVISION STATEMENT: Changes have been made throughout this Material Safety Data Sheet. Please read the entire document.

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