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™ 187*
Generic Name: Aqueous solution of phosphonate, sulfite, EDTA
Synonyms: NA
Product Description: Boiler water treatment
CAS # NA - blend
Date of Revision: 5/30/2006

The fourth digit of the product number designates the container size:
Gessco™ 187-1 - 5 gallon
Gessco™ 187-2 - 30 gallon
Gessco™ 187-3 - 55 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, possibly corrosive to eye tissues. Tearing, redness, pain, impaired vision are symptoms.

Chronic Exposure: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

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
Sodium hydroxide	1310-73-2	3 – 5	2 mg/m^3	2 mg/m^3
N,N-Diethylethanolamine	100-37-8	1 – 3	10 ppm; 50 mg/m^3	10 ppm; 50 mg/m^3 Skin: 2 ppm TWA
Sodium metabisulfite	7681-57-4	3 – 5	None	5 mg/m^3
Poly(methacrylic acid)	54193-36-1	3 – 5	None	None
Tetrasodium ethylenediaminetetraacetic acid	64-02-8	3 – 5	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 # 1310-73-2: OSHA PEL 2 mg/m^3 ACGIH TLV 2 mg/m^3
CAS# 7681-57-4: OSHA PEL None ACGIH TLV 5 mg/m^3
CAS# 100-37-8: OSHA PEL 10 ppm, 50 mg/m^3 ACGIH TLV 10 ppm, 50 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 yellow-brown liquid	Specific Gravity (g/mL)	1.09
Odor	Mild	pH	13.2
Odor Threshold	ND	Solubility in water	Complete
Melting Point	-5°C (23°F)	% Volatiles	ND
Boiling Point	102°C (214°F)	Evaporation Rate	ND
Flash Point	NA	Vapor Pressure	9 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, sodium 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: Sodium hydroxide: Draize test, rabbit, eye: 1% Severe; Draize test, rabbit, eye: 50 ug/24H Severe; Draize test, rabbit, eye: 1 mg/24H Severe; Draize test, rabbit, skin: 500 mg/24H Severe; Oral – LD50 (rabbit) is 500 mg/kg @ 100% NaOH

Tetrasodium EDTA: Irritation Data, rabbit (Std Draize): eye= 100 mg/24H, moderate; Irritation Data, rabbit (Std Draize): skin= 500 mg/24H, moderate; Acute oral toxicity (LD50): >2000 mg/kg [Rat]

Sodium metabisulfite: Skin, rat: LD50 = >2 gm/kg; Oral, rat: LD50 = >2 gm/kg

Section 12: Ecological Information

Environmental Fate: No information found.

Ecotoxicity: LC50 *Daphnia pulex* (48 hr):1070 mg/L; LC50 *Pimephales promalas* (48 hr): 1410 mg/L; LC50 *Mysidopsis bahia* (48 hr): 870 mg/L; LC50 *Mendia beryllina* (48 hr): 3540 mg/L

Tetrasodium EDTA: 96 Hr LC50 bluegill sunfish: 490 mg/L (Static); Ecotoxicity in water (LC50): 760 mg/l 96 hours [Bull gill sunfish]. 59.8 mg/l 96 hours [Fathead Minnow].

Section 13: Disposal Considerations

As a waste, this product as sold IS considered a HAZARDOUS WASTE under RCRA (29 CFR 261) due to the characteristic of corrosivity. EPA Hazardous Waste number: D002.

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): 25,000 lb (2754 gal) based on Sodium 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 TPQ: None of the chemicals in this product have a TPQ.

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

SARA Sec 311/312: **Acute** – CAS # 1310-73-2 and CAS# 7681-57-4 **Chronic** – NO; **Fire** – NO; **Release of Pressure** – NO; **Reactivity** – CAS# 7681-57-4

SARA 313 List: No chemicals in this product are reportable under Section 313 Title III and 40 CFR Part 373

CERCLA Hazardous Substances and corresponding RQs: Sodium hydroxide: 25,000 lbs (2754 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: **Hazardous Substance?** CAS # 1310-73-2 **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: Federal Food, Drug and Cosmetic Act: When use situations necessitate compliance with FDA regulations, this product is acceptable under 21 CFR 173.310 Boiler Water Additives. The following use limitations apply: Maximum content of poly(methacrylic acid) not to exceed 1 ppm in the boiler water. Maximum content of N,N-Diethylethanolamine not to exceed 10 ppm in the steam.

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

Section 16: Other Information

Abbreviations and acronyms used:

ACGIH	American Congress of Governmental Industrial Hygienists	NA	not applicable, not available
ANSI	American National Standards Institute	NIOSH	National Institute for Occupational Safety and Health
atm	atmosphere (pressure unit)	ND	not determined
BOD	biological oxygen demand	NFPA	National Fire Prevention Association
CAS	Chemical Abstracts Service	NTP	National Toxicology Program
CC	closed cup	OC	open cup
CDTA	Chemical Drug and Trafficking Act	OSHA	Occupational Safety and Health Administration
COC	Cleveland Open Cup	Part	partition
COD	chemical oxygen demand	PEL	permissible exposure limits
coeff.	coefficient	ppb	parts per billion
CFR	Code of Federal Regulations	PPE	personal protective equipment
CPR	cardio-pulmonary resuscitation	ppm	parts per million
DEA	Drug Enforcement Agency	psi	pounds per square inch
DOT	Department of Transportation	RCRA	Resource Conservation and Recovery Act
FDA	Food and Drug Administration	RQ	Reportable quantity
IARC	Internat'l Agency for Research on Cancer	RTK	Right to Know
IDLH	immediate danger to life and health	SARA	Superfund Amendments and Reauthorization Act
kg	kilogram	STEL	short-term exposure limit
L	liter	TCC	Tagliabue Closed Cup
LC50	median lethal concentration	TPQ	threshold planning quantity
LD50	median lethal dose	TQ	threshold quantity
LEL	lower explosive limit	TSCA	Toxic Substances Control Act
mg	milligram	TWA	time-weighted average
mL	milliliter	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 May 30, 2006.

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

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