



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

Section 1: Product and Company Identification

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

Product Name: Gessco™ 150*
Generic Name: Catalyzed sodium sulfite
Synonyms: NA
Product Description: Boiler water oxygen scavenger
CAS # NA – blend
Date of Revision: 6/06/2006

The fourth digit of the product number designates the container size:
 Gessco™ 150-4 - 100 lbs in a 10.5 gallon fiber drum
 Gessco™ 150-5 - 300 lbs in a 32 gallon fiber drum

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

Section 2: Hazard Identification

Emergency Overview: Appearance: White granular solid with red specks. Flash Point: Not flammable. **Warning!** Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. May cause allergic respiratory reaction. Reacts with acids and water releasing toxic sulfur dioxide gas.

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

Potential Health Effects:

Inhalation: Inhalation of dust may cause irritation to the mucous membranes of the upper respiratory tract. Use of bronchodilators preserved with sulfites can cause allergic reactions.

Ingestion: May cause gastric irritation by the liberation of sulfurous acid. Large doses may result in circulatory disturbances, diarrhea, and central nervous system depression. Estimated fatal dose is 0.5 to > 5g/kg.

Skin Contact: May cause irritation.

Eye Contact: May cause irritation, redness and pain.

Chronic Exposure: Cobalt compounds may cause cancer based upon animal studies.

Aggravation of Pre-existing Conditions: Some individuals are said to be dangerously sensitive to minute amounts of sulfites in foods and some bronchodilator medicines preserved with sulfites. Symptoms may include broncho constriction, shock, gastrointestinal disturbances, angio edema, flushing, and tingling sensations.

Target Organs: Central nervous system.

Section 3: Composition / Information On Ingredients

Component	CAS #	Weight %	OSHA PEL	ACGIH TLV
Sodium sulfite	7757-83-7	> 95	None	None
Sodium metabisulfite	7681-57-4	< 5	None	5 mg/m ³
Cobalt sulfate	10026-24-1 (heptahydrate) 10124-43-3 (Anhydrous)	0.1 – 0.5	0.1 mg/m ³	0.02 mg/m ³

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: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

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: Treat symptomatically and supportively.

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 - 0 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# 7757-83-7 OSHA PEL: None ACGIH TLV: None
 CAS# 7681-57-4 OSHA PEL: None ACGIH TLV: 5 mg/m³
 CAS# 10124-43-3 OSHA PEL: 0.1 mg/m³ ACGIH TLV: 0.02 mg/m³

Cobalt sulfate (CAS# 10124-43-3, Anhydrous and CAS# 10026-24-1, heptahydrate) is categorized by ACGIH as A3: Animal carcinogen.

OSHA guidelines limit dust exposure to respirable dust to 5 mg/m³ and to total dust to 15 mg/m³

ACGIH guidelines limit exposure to total dust to 15 mg/m³

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	White-pink granular solid	Specific Gravity (g/mL)	2.6 (162 lbs/ft ³)
Odor	Mild sulfurous	pH (1% solution)	8.0 – 9.0
Odor Threshold	ND	Solubility in water	Complete
Melting Point	Decomposes	% Volatiles	ND
Boiling Point	NA	Evaporation Rate	ND
Flash Point	Not flammable	Vapor Pressure	ND
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 ₂ O)	ND
Decomposition Temp	ND		

Section 10: Stability and Reactivity

Chemical Stability: Stable under ordinary conditions of use and storage

Hazardous Decomposition Products: May form sulfur oxides 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 sulfite: Oral, mouse: LD50 = 820 mg/kg

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

Cobalt sulfate: Oral rat LD50: 424 mg/kg

Section 12: Ecological Information

Environmental Fate: No information found.

Ecotoxicity: Sodium sulfite: Fish Toxicity: LC50 (96 hr) fathead minnow GT100 mg/l Water flea: 32 mg/L

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: Not regulated.

DOT Hazard Class: NA

UN Number: NA

Packing Group: NA

Label: NA

CERCLA Reportable Quantity (RQ): CAS# 10124-43-3, cobalt sulfate, RQ = 1 lb, about 400 lbs of product.

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 Sec 8(b) 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 – CAS #7757-83-7, 10124-43-3 and 7681-57-4; **Chronic** – CAS# 10124-43-3; **Fire** – NO; **Release of Pressure** – NO; **Reactivity** – CAS# 7681-57-4

SARA 313 List: Cobalt sulfate is reportable under Section 313 Title III and 40 CFR Part 372

CERCLA Hazardous Substances and corresponding RQs: CAS# 10124-43-3, RQ = 1 lb, about 400 lbs of product.

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

Clean Air Act: Hazardous Air Pollutants? CAS# 10124-43-3 **Class 1 Ozone Depletors?** NO **Class 2 Ozone Depletors?** NO

Clean Water Act: Hazard Substance? NO **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 where the steam may contact food.

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

California Proposition 65: WARNING: This product contains Cobalt sulfate heptahydrate, or Cobalt sulfate anhydrous, a chemical known to the state of California to cause cancer.

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 June 6, 2006.

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

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