John R Hess & Company, Inc.

KOVKLEEN® 150

Section 1 - Product and Company Identification

Product Name: KOVKLEEN 150
Chemical Formula: $NaHSO_3$
CAS Number: 007631-90-5
Other Designations: Sodium Bisulfite Solution, Sodium Hydrogen Sulfite Solution.
General Use: Food and pharmaceutical preservative, waste water dechlorination agent, laboratory reagent, reducing agent.

Company Name John R Hess & Company, Inc. 400 Station
Address St
Cranston, RI 02910 USA

Telephone (401) 785-9300 (800) 556-4377
E-mail custerv@jrhess.com
Emergency Phone Numbers
Infotrac 1-800-535-5053 (Spill, Leak, Fire, Exposure, Accident)
+1 (352) 323-3500 (Outside North America)

Section 2 - Hazards Identification

Emergency Overview
Target Organs: Respiratory system, eyes, skin
GHS Classification: Acute Toxicity, Oral (Category 4)
Acute Toxicity, Dermal (Category 5)
Serious Eye Irritant (Category 2A)

GHS Label Elements: Signal Word – Warning

Pictogram



Corrosive



Irritant

Hazard Statements: H302 – Harmful if swallowed
H313 – May be harmful to skin
H319 – Causes serious eye irritation

Precautionary Statements: P280 – Wear protective equipment for hands, eyes, face and respiratory tract
P305, P351 and P338 – IF IN EYES: Rinse with water for several minutes. Remove contact lenses if present and continue rinsing.

Other Hazards: Contact with acids liberates toxic sulfur dioxide gas.

Potential Health Effects:	Inhalation:	Irritant to respiratory tract
	Eye:	Irritant
	Skin:	Irritant
	Ingestion:	Harmful if swallowed
	Aggravated Medical Condition:	Capable of provoking bronchospasm in sulfite sensitive individuals with asthma.

Section 3 - Composition / Information on Ingredients

Composition	CAS Number	% Wt
Water	-	50 – 70
Sodium bisulfite	007631-90-5	30 – 50
Sodium Sulfite	007757-83-7	< 1.0
Sodium Sulfate	007757-82-6	< 3.5

Section 4 - First Aid Measures

Exposure Route	Symptom	Treatment
Inhalation:	Sore throat, shortness of breath coughing, and congestion.	Remove from exposure to fresh air. Seek medical attention in severe cases or if recovery is not rapid.
Eye Contact:	Irritation to eyes and mucous membranes.	Irrigate with water until no evidence of chemical remains. Obtain medical attention.
Skin Contact:	Irritation, itching, dermatitis	Wash with soap and drench with water. Remove contaminated clothing and wash before reuse.
Ingestion:	Irritation to mucous membranes.	Give large quantities of water or milk immediately. Obtain medical attention.

Seek appropriate medical attention *and provide this SDS to attending doctor*
Note to physician: Exposure may aggravate acute or chronic asthma, emphysema and bronchitis.

Section 5 - Fire-Fighting Measures

Flash Point:	Not combustible.
Flash Point Method:	Not Applicable.
Burning Rate:	Not Applicable.
Auto Ignition Temperature:	Not Applicable.
LEL:	Not Applicable.
UEL:	Not Applicable.
Flammability Classification:	Not Flammable.
Extinguishing Media:	Use extinguishing agent appropriate for surrounding fire conditions.
Unusual Fire or Explosion Hazards:	None indicated.
Hazardous Combustion Product:	May release hazardous gas.
Fire-Fighting Instructions:	Do not release runoff from fire control methods to sewers or

waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive- pressure mode.

Section 6 - Accidental Release Measures

Spill / Leak Procedures: Wear appropriate PPE - See Section 8.

Small Spills / Leaks: Spills can be neutralized with an alkaline material such as caustic soda. Leaks may be located by spraying the area with ammonium hydroxide solution which forms a white fume in the presence of sulfur dioxide.

Large Spills / Leaks: Large spills should be handled according to a predetermined plan.

Containment: For large spills, dike far ahead of contaminated runoff for later disposal.

Section 7 - Handling and Storage

Handling Precautions: Avoid contact with product. Do not breathe dust or vapor.

Storage Requirements: Store in areas, away from heat and moisture and protect from *physical* damage. Segregate from acids and oxidizers.

Section 8 - Exposure Controls / Personal Protection:

Component: Sodium Bisulfite **CAS Number:** 007631-90-5

ACGIH (TLV) **TWA:** 5 mg/m^3

OSHA (PEL) **TWA:** 5 mg/m^3

NIOSH (REL) **TWA:** 5 mg/m^3

I**DLH** – None established

IDLH - Immediately Dangerous to Life or Health

PEL – Permissible Exposure Limit

REL – Recommended Exposure Limit

TLV – Threshold Limit Value

ACGIH – American Conference of Governmental Industrial Hygienists

TWA – Time Weighted Average based on 8hour exposure days and a 40 hour week.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA limits (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at the source.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear a SCBA. ***Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.***

Protective Clothing / Equipment: Wear protective gloves, boots, and clothing when necessary to prevent

Safety Stations:	excessive skin contact. Wear protective eyeglasses or goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Make emergency eyewash stations, showers, and washing facilities available in the work area.
Contaminated Equipment:	Remove this material from personal protective equipment as needed. Do not eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before food or beverage consumption.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid	**Water Solubility**:	NA
Appearance:	Yellow	Ot**her Solubility:**	NA
Odor Threshold:	Pungent SO_2 odor	**Boiling Point:**	205 ^{o}F
Vapor Pressure:	NA	**Freezing Point:**	26 ^{o}F
Vapor Density (Air=1):	NA	Me**lting Point:**	
Formula Weight:	104	**Evaporation Rate:**	Normal.
Density:	NA	**pH:**	2.9 – 4.9
Specific Gravity (H_2O=1):	1.3 - 1.4	**% Volatile:**	NA

Section 10 - Stability & Reactivity

Stability: Stable under normal conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: Sodium Bisulfite Solutions may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty. However, workers who cannot escape high accidental exposure may suffer severe pulmonary damage which can be fatal. Contact with powdered potassium, sodium metals, alkali, and oxidizing agents produce violent reactions. Reacts with water and steam to form corrosive sulfurous acid. Reacts with chlorates to form unstable chlorine dioxide.

Conditions to Avoid: Avoid excessive heat, or open flame.

Hazardous Decomposition Products: May release hazardous sulfur dioxide gas

Section 11 - Toxicological Information

Eye Effects (rabbit): Not available. **Acute Inhalation Effects (rat):** Not available.

Skin Effects (rabbit): Not available. **Acute Oral Effects (rat):** LD_{50} = 2,000 mg/kg

Carcinogenicity: IARC, NTP, and OSHA do not list Sodium Bisulfite as a carcinogen.

Chronic Effects: Prolonged or repeated exposure may cause dermatitis, and sensitization

reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals may result in severe bronchioconstriction and reduced levels in forced expiratory volume. Decomposition of sodium bisulfite solutions may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide, which may cause permanent pulmonary impairments from acute and chronic exposure. The Immediately Dangerous to Life or Health (IDLH) level for SO2 is 100 ppm.

Aquatic Toxicity: The toxicity threshold of Sodium Bisulfite (100 hr. at 23 degrees Celsius) to Daphnia Magna has been reported to be 102 mg/l. In the presence of additional sodium salts, this threshold may be lower. For minnows, exposed for 6 hours to sodium bisulfite solution in distilled water at 19 degrees Celsius it was 60-65 mg/l, and in hard water at 18 degrees Celsius it was 80-85 mg/l.

The 24, 48, and 96 hour LC50 value was 240 mg/l for the mosquito-fish (Gambusia affinis in turbid water at 17 - 22 degree Celsius.

Section 12 - Ecological Information

Ecotoxicity: Sodium Bisulfite is a non-hazardous solution commonly used as a waste water dechlorination agent. High concentrations will contribute to elevated chemical oxygen demand in aquatic environments.

Environmental Transport: Soluble in water.

Environmental Degradation: Rapid biological decomposition.

Soil Absorption/Mobility: Slight.

Section 13 - Disposal Considerations

Disposal: Waste determinations typically consider Sodium Bisulfite contaminated materials to be non-hazardous.

Disposal Regulatory Requirements: Follow applicable Federal, state and local regulations.

Container Cleaning and Disposal: Follow applicable Federal, state and local regulations.

Section 14 - Transport Information

Shipping Name: Bisulfites, aqueous solutions, n.o.s.
Technical Name: Sodium Bisulfite
Shipping Symbols: Corrosive
Hazard Class: 8 - Corrosive
Subsidiary Hazard: NA
ID No. (Placard): UN2693
Packing Group: lll
Label: Required
Reputable Quantity: (RQ) 5,000 lbs

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Classification (40 CFR 261):	Not listed.
RCRA Hazardous Waste Number (40 CFR 261):	Not listed.
CERCLA Hazardous Substance (40 CFR 302.4):	Listed.
CERCLA Reportable Quantity (RQ):	5000 pounds
SARA Title III:	Not listed.
FIFRA:	Not regulated.
TSCA:	Inventory listed chemical; PAIR Reportable; Not listed in Toxic Substances Chemical Index

OSHA Regulations:

Air Contaminant (29CFR 1910.1000):	Not listed.
OSHA Specifically Regulated Substance:	Not listed.

Other Regulations:

FDA:	Regulated when used as a food preservative.
Proposition 65 (California):	Not Listed

Section 16 - Other Information

This product is NSF certified to NSF/ANSI Standard 60 and is subject to a maximum use limit (MUL) 0f 46 mg/L for potable water dechlorination applications.

HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A)

Health	*	2
Flammability		0
Physical hazards		0

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NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)



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