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# Material Safety Data Sheet (RealChem 224)

 <b>RealChem Northwest</b> REALISTIC CHEMICAL SOLUTIONS FOR INDUSTRY	Date Prepared: October 28, 2003
	Revision Date: August 11, 2005
P.O. BOX 53323 BELLEVUE, WA 98015-3323	INFOTRAC: 800-535-5053
	Product Number: WBWT1LL-SF
	Control Number:
Emergency Phone Number: (800) 535-5053	

## SECTION I - IDENTIFICATION

Product Name: RealChem 224  
 Synonyms: Oxygen scavenger  
 Chemical Family: Inorganic sodium solutions  
 Formula: Proprietary  
 Product Description: Boiler Treatment

## SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredient	Percent	CAS Number	PEL
Potassium hydroxide	>1%	1310-58-3	2 mg/m <sup>3</sup>
Sodium bisulfite	>1%	7631-90-5	2 mg/ m <sup>3</sup> (as SO <sub>2</sub> )

## SECTION III - PHYSICAL/CHEMICAL DATA

Form: Liquid  
 Color: Colorless  
 Odor: Sulfur dioxide (pungent)  
 Boiling Point: 220°F  
 Freeze Point: Not established  
 Melting Point: Not established  
 Vapor Pressure: 1.3 mm Hg @42%  
 Vapor Density (Air=1): Not applicable  
 Specific Gravity: 1.284  
 Density lb./gal (kg/L): 10.7 (1.28)  
 pH(neat): > 13  
 pH(1% solution): 11.4 to 12.4  
 Solubility in Water: Complete  
 Evaporation Rate: 1 (water = 1)  
 Volatility including Water: 70%  
 Molecular Weight: Blend, not applicable

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### SECTION IV – FIRE AND EXPLOSION DATA

Flashpoint: Non combustible  
Autoignition: Neither flammable nor explosive  
Flammable Limits: Not flammable  
Lower Flammability Limit (In Air, %): ..... None  
Upper Flammability Limit (In Air, %): ..... None  
Explosion Limits: Neither reactive nor explosive  
Lower Explosion Limit (In Air, %): Neither reactive nor explosive  
Upper Explosion Limit (In Air, %): Neither reactive nor explosive  
Extinguishing Media: Non combustible. Employ extinguishing media appropriate to surrounding materials.  
Hazardous Combustion Products: Generates hazardous sulfur dioxide during decomposition.  
Special Fire Fighting Procedures: Wear NIOSH-approved self-contained breathing apparatus. Use water spray to keep containers cool and to knock down fumes.  
Unusual Fire and Explosion Hazards: ..... Non combustible. Generates hazardous sulfur dioxide during decomposition.

### SECTION V – REACTIVITY DATA

Stability: At ambient temperatures and atmospheric pressure, this material decomposes, giving off sulfur dioxide gas.  
Hazardous Polymerization: Hazardous polymerization does not occur.  
Incompatibility: Contact with strong oxidizers cause vigorous exothermic reactions.  
Contact with acids will release sulfur dioxide.  
Hazardous Decomposition Products: ..... Oxides of sulfur. Sulfur dioxide.

### SECTION VI – HEALTH DATA

Threshold Limit Value: No data available  
OSHA PEL: No data available  
Listed Carcinogen: This product contains no known or potential carcinogens  
Medical Conditions Aggravated by Overexposure: ..... Breathing of mist may aggravate asthma or other pulmonary diseases.  
Inhalation: May cause irritation. Sulfite-sensitive individuals may experience a severe allergic reaction.  
Ingestion: Oral exposure or swallowing may produce gastrointestinal upset, nausea, or vomiting. Ingestion may be fatal. Sulfite-sensitive individuals may experience a severe allergic reaction.  
Eyes: May cause mild irritation or severe burns with prolonged exposure.  
Skin (Dermal): May cause mild irritation with prolonged exposure.

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**SECTION VII – FIRST AID**

Breathing (Inhalation):	Immediate first aid is not likely to be required. If irritation occurs, remove to fresh air. Immediately remove material from eyes, skin and clothing.
Swallowing (Ingestion):	If person is conscious, give large quantities of water to drink. Do not induce vomiting. Call a physician.
Eyes:	Remove contact lenses. Gently flush the eyes and surrounding areas, including under the eyelids, with lukewarm water for 15 minutes. If irritation persists, seek medical attention.
Skin (Dermal):	Remove contaminated clothing. Wipe material from the skin. Rinse the affected area with large amounts of water for 15 minutes. If irritation persists, seek medical attention.

**SECTION VIII – EMPLOYEE PROTECTION**

Respiratory Protection:	In case of significant or accidental mist emissions, a NIOSH/MSHA approved mask should be worn. If sulfur dioxide is present, use a NIOSH-approved respirator or self-contained breathing apparatus.
Eye Protection:	Safety glasses. Always be aware of proximity of eye wash station.
Protective Gloves:	Neoprene, rubber, or PVC gloves with gauntlets.
Protective Clothing:	Boots, apron, long sleeves.
Ventilation Requirements:	Adequate ventilation must be provided to maintain air concentration below the OSHA PEL.
Work/Hygiene Practices:	An emergency eye wash and safety shower for first aid treatment of potential chemical burns should be available in the vicinity of exposure from any material release. Avoid contact with the skin, and breathing vapor, mists, or dusts. Do not eat, drink or smoke in the work area. Wash hands thoroughly before eating, drinking, smoking, chewing, or using the restroom facility.
Additional Measures:	None known.

**SECTION IX – SPILL AND DISPOSAL DATA**

Spill:	In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.
Waste Disposal:	Dispose of in accordance with all federal, state, and local environmental laws and regulations.
RCRA Status:	Not listed

**SECTION X – TRANSPORTATION DATA**

DOT Shipping Name:	Corrosive Liquids, n.o.s., (Potassium Hydroxide and Sodium Bisulfite), 8, UN1760, PGII
DOT Hazard Label(s):	Corrosive
DOT Hazard Placard(s):	Corrosive
DOT Hazard Class:	8

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UN/NA Number: UN1760  
Packaging Group: II  
Reportable Quantity: Not Est.  
Emergency Response Guide Number: .....Not Applicable

**SECTION XI – OTHER REGULATORY INFORMATION**

TSCA Status: All components listed in TSCA inventory.  
SARA Section 302: Reportable quantity of extremely hazardous substance: not listed.  
Threshold planning quantity, extremely hazardous substance: not listed.  
SARA Section 311: Hazard Categories: Fire: No; Sudden Release of Pressure: No;  
Reactive: Yes; Acute Health: Yes; Chronic Health: Yes; Planning  
Threshold: No data available.  
SARA Section 312: Hazard Categories: Fire: No; Sudden Release of Pressure: No;  
Reactive: Yes; Acute Health: Yes; Chronic Health: Yes; Planning  
Threshold: No data available.  
Sara Section 313: Not regulated  
Clean Air Act: Not Listed  
FDA: Acceptable for use in food processing plants as determined in 21CFR  
Section 173.310, Food and Drug.  
USDA: Authorized by USDA for use in federally inspected meat and poultry  
plants.  
HMIS Health: 2  
HMIS Flammability: 0  
HMIS Reactivity: 0  
HMIS Personal Protection: C

**SECTION XII – HANDLING AND STORAGE**

Storage Requirements: Store in closed, properly labeled tanks or containers.  
Handling Procedure: Avoid prolonged or repeated contact with the skin or eyes.  
Conditions to avoid: Keep away from acids, oxidizers, and heat sources.

**SECTION XIII – TOXICOLOGICAL AND ECOLOGICAL INFORMATION**

Toxicity: Acute toxicity: LD50-oral 2 gm/kg species: rat (as sodium bisulfite)  
Toxicity: Chronic toxicity: Can cause allergic reactions, including headaches,  
difficulty in breathing, rapid heart rate, anaphylaxis to susceptible  
individuals (as sodium bisulfite).  
Aquatic Toxicity Study: Sodium sulfite: 96 hour LC50 goldfish: 100 mg/liter.  
Aquatic Toxicity Study: Sodium sulfite: 24, 48, 96 hour TLm mosquito fish: 2,600 ppm  
BOD: Biological Oxygen Demand = 0.12 lb/lb instantaneous. Sodium  
bisulfite is an oxygen scavenger when introduced to water.  
COD: No data available

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**SECTION XIV – ADDITIONAL INFORMATION**

Additional: This product is NOT listed in Proposition 65, California Safe Drinking Water and Toxic Enforcement Act of 1986.

**ABBREVIATIONS**

**ACGIH**=American Conference of Governmental Industrial Hygienists

**OSHA**=Occupational Safety and Health Administration

**TLV**=Threshold Limit Value

**PEL**=Permissible Exposure Limit

**TWA**=Time Weighted Average

**STEL**=Short-Term Exposure Limit

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