

MATERIAL SAFETY DATA SHEET

SECTION I

PRODUCT TRADE NAME: K-SAN PLUS

Chemical Family: Oxidizers

Formula: Proprietary

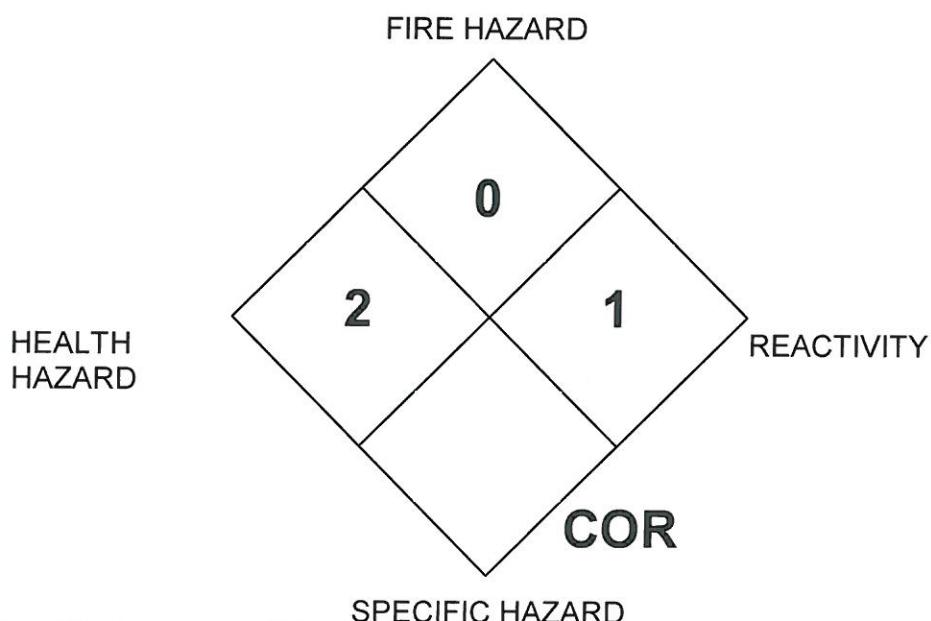
Product #: 7450-A

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EMERGENCY CONTACT: CHEMTREC - 1-800-424-9300

(For use only in the event of emergencies involving a spill,
leak, fire, exposure, or accident involving chemicals)

NFPA Code



Health Hazard:	Fire Hazard: (Flash Point)	Reactivity:	Specific Hazard:
0 - Normal Material 1 – Slightly Hazardous 2 - Hazardous 3 - Extreme Danger 4 - Deadly	0 - Will Not Burn 1 - Above 200°F 2 - Below 200°F 3 - Below 100°F 4 - Below 73°F	0 – Stable 1 - Unstable if Heated 2 - Violent Chemical Change 3 - Shock and Heat May Detonate 4 - Explosive	Oxidizer OXY Acid ACID Alkali ALK Corrosive COR

SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredients	Percent:	Threshold Limit Value: average of airborne concentration)
Sodium Hypochlorite (CAS #7681- 52-9)	10.5	PEL/TLV 0.5 PPM STEL 1-PPM OSHA/ACGIH

SECTION III - PHYSICAL PROPERTY DATA

Boiling Point: Decomposes
Specific Gravity (Water = 1): 1.14
Vapor Pressure: V.P. of water & V.P. of decomposition products
% Volatile: Variable
Vapor Density (Air = 1): N/A
Evaporation Rate (Water = 1): N/A
Solubility in Water: Complete
Appearance and Odor: Light yellowish green liquid; chlorine odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): Not Combustible
Flammable Limits: Non-Flammable
Extinguishing Media: Use water to cool containers; knock down fumes if released.
Special Fire Fighting Procedures: Avoid fumes from spilled or exposed liquid; dilute copiously. Ventilate and be prepared to use respiratory protection if needed. Acid contamination will produce very irritating fumes similar to chlorine gas.
Unusual Fire and Explosion Hazards: Product decomposes when heated; decomposition products may cause containers to rupture or explode. Vigorous reaction possible with organic materials or oxidizing agents; may result in a fire.

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure:

ON SKIN: Results of exposure can range from irritation to burns depending on duration of contact.

SECTION V - HEALTH HAZARD DATA – CONTINUED

IN EYES: Results of exposure can range from irritation to serious eye damage, including blindness. Severity of damage increases with duration of contact.

INHALATION: Can cause irritation and burns to respiratory tract.

INGESTION: Corrosive to the mucous membranes of the mouth, throat, esophagus and stomach. Causes burn, nausea, and vomiting with gastrointestinal disorder. Can be fatal if swallowed.

Emergency First Aid Procedures:

IN EYES: Flush immediately for 15 minutes with clean water while holding eyelids open. Seek immediate medical attention.

ON SKIN: If irritation occurs, flush with plenty of clean water. Remove contaminated clothing and shoes; do not reuse until cleaned. Seek medical attention if a rash occurs or if irritation continues.

INHALATION: Remove person to fresh air. Begin CPR if breathing has stopped, and seek medical attention immediately.

INGESTION: DO NOT induce vomiting. If conscious, give several large glasses of water or milk. Do not induce vomiting or administer baking soda or acidic antidotes. NEVER give anything to an unconscious person orally. Seek immediate medical attention.

Advice to physician: Antidote - Give sodium thiosulfate orally.

SECTION VI - PERSONAL PROTECTION INFORMATION

Respiratory Protection: When fumes are present, use NIOSH approved respirator with a chlorine canister or supplied air respirator.

Ventilation: Local exhaust is normally adequate. Use mechanical ventilation if build-up of mist or vapors is likely or if product is exposed to decomposition conditions; i.e. in a spill or in an acid condition.

Protective Gloves: Chemical resistant rubber or neoprene gloves are recommended.

Eye Protection: Chemical splash goggles or face shield is recommended.

Other Protective Equipment: Rubber boots and apron as needed to prevent contact with skin and clothing.

SECTION VII - REACTIVITY DATA

Stability Data: Solutions of sodium hypochlorite are fairly stable in concentrations below 1%. Stability decreases with concentration, heat, light exposure, decrease in pH, and contamination with heavy metals, such as nickel, cobalt, copper and iron.

Incompatibility: Avoid contamination with heavy metals (act as catalysts), reducing agents, organics, ether, amines, ammonium acetate, cellulose, ammonia, acids, or acid pH.

Hazardous Decomposition Products: Hypochlorous acid (HOCL), chlorine, hydrochloric acid.

Composition depends upon temperature and decrease in pH. Additional decomposition products, which depend upon pH, temperature and time, are sodium chloride, sodium chlorate and oxygen.

Hazardous Polymerization: Will not occur

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps To Be Taken If Released or Spilled: All spilled material must be contained and kept out of waterways, sewers and drains. The spilled chemical should be absorbed with an inert material. Flush cleaned area thoroughly with water.

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local pollution control regulations.

SECTION IX - SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling and Storage: Keep container tightly closed when not in use. Store in vented, closed, clean, non-corrodable containers in cool dry location, away from direct sunlight and not adjacent to chemicals, which may react with the product; if spillage occurs. If closed containers become heated, they should be vented to release decomposition products (mainly oxygen under normal decomposition). Do not mix or contaminate with ammonia, hydrocarbon acids, alcohol's, and ethers.

Other Precautions: **KEEP OUT OF THE REACH OF CHILDREN.** Have eyewash accessible to use and handling area. Long storage periods should be avoided as product degrades with age. Containers of this material may be hazardous when emptied; empty containers retain product residues.

SECTION X - SHIPPING INFORMATION

Proper Shipping Name: Hypochlorite Solution

D.O.T. Classification: UN1791, 8, PGIII

D.O.T. Placard: UN 1791 / CORROSIVE

Precautions To Be Taken in Transportation: Keep container tightly closed.

SECTION XI – ADDITIONAL INFORMATION

OTHER ADDITIONAL INFORMATION: No information available at this time.

The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injuries from the use of the product described herein.

SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	Chemical Name:	Percent by Weight:
None	None	None

This information must be included in all Material Safety Data Sheets that are copied and distributed for this material.