

SAFETY DATA SHEET

CIP 5000 (#1400)
Product ID: FP326400
Revised: 09-06-2013
Replaces: 11-15-2011

1. IDENTIFICATION

Product Name: CIP 5000 (#1400)
Synonyms: R11620
CAS Number: MIXTURE
Recommended Use: No data available.
Restrictions on Use: No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION



Signal Word: Danger

GHS Classification: Substance or mixture corrosive to metals Category 1
Skin Corrosion/Irritation Category 1B
Serious Eye Damage/Eye Irritation Category 1
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1

Hazard Statements: May be corrosive to metals.
Causes severe skin burns and eye damage.
Causes damage to organs (respiratory system by inhalation).

Precautionary Statements:

Prevention: Keep only in original container.
Do not breathe dust, fume, gas, mist, vapours or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear gloves, eye and face protection and protective clothing.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see First Aid on SDS or on this label).
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.

Storage: Store in a secure manner.

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Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: May react violently with water. May react with various food sugars to form carbon monoxide. Reacts with most metals to form explosive/flammable hydrogen gas. Mixing with acid detergents may form chlorine gas.

Percentage of Components with Unknown Acute Toxicity:

Dermal: 13.8 %

Inhalation Vapor: 22.3 %

Inhalation Dust/Mist: 22.3 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>% by Wt.</u>
Potassium Hydroxide	1310-58-3	< 15 %
Sodium Tripolyphosphate	7758-29-4	< 10 %
Sodium Polyacrylate	9003-04-7	0 - 3.5 %
Sodium Hydroxide	1310-73-2	< 3 %
Sodium Hypochlorite	7681-52-9	< 3 %

4. FIRST-AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Washing eyes within several seconds is essential to achieve maximum effectiveness. Do not attempt to neutralize with chemical agents. Oils or ointments should not be used at this time.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. If skin feels slippery, caustic may still be present in sufficient quantities to cause rash or burn. Continue washing skin until slick feeling is gone. Discard footwear which cannot be decontaminated. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure.

Ingestion: If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. If swallowed, immediate first aid is not likely to be required. Contact a physician or poison Control Center for advice.

Note to Physicians:

Probable mucosal damage may contraindicate the use of gastric lavage. The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

Most Important Symptoms/Effects:

Eye Contact: CORROSIVE-Causes severe irritation and burns.

Skin Contact: CORROSIVE-Causes severe irritation and burns.

Inhalation: CORROSIVE-Causes severe irritation and burns.

Ingestion: CORROSIVE-Causes severe irritation and burns.

5. FIRE-FIGHTING MEASURES

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Extinguishing Media: Not combustible. For fires in area use appropriate media. For example: Dry chemical. Carbon dioxide. Water spray. Foam.

Fire Fighting Methods: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Move containers from fire area if possible without hazard. Use flooding quantities of water as fog or spray to keep fire-exposed containers cool. Use water spray to cool fire-exposed containers, but avoid getting water into containers. Product generates heat upon addition of water, with possible spattering. Run-off from fire control may cause pollution.

Fire and Explosion Hazards: Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable hydrogen gas. Reacts violently with water.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide. Acrylic monomers. Irritating and/or toxic gases. Sodium oxides. Chlorine-containing gases.

6. ACCIDENTAL RELEASE MEASURES

Spill Clean-Up Procedures: CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Contain spills immediately with inert materials (e.g., sand, earth). Place in non-leaking containers for immediate disposal. Neutralize remaining residue with dilute Hydrochloric Acid solution and dispose of properly. CAUTION: This product may react violently with acids and water. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. For air release: Vapors may be suppressed by the use of a water fog. Contain all run-off water for treatment and/or proper disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. When mixing, slowly add to water to minimize heat generation and spattering. Do not add large quantities of water, excessive heat formation will cause boiling and spattering. Avoid dust or mist formation.

Storage: CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Do not store in aluminum container or use aluminum fittings or transfer lines. Highly corrosive to most metals with evolution of hydrogen gas. Never enter a pit or tank without following safety procedures-never alone, always with a lifeline and positive pressure supplied air. Contact of caustic potash cleaning solutions with food and beverage products (in enclosed vessels or spaces) can produce lethal concentrations of carbon monoxide gas. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products. Do not enter such areas until they have been well ventilated and carbon monoxide and oxygen levels have been determined to be within OSHA acceptable limits. If carbon monoxide and oxygen levels cannot be measured, wear NIOSH-approved, self-contained breathing apparatus. Do not freeze. See Section 10 for incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
Sodium Hydroxide	2 mg/m ³ TWA

ACGIH Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
Potassium Hydroxide	2 mg/m ³ Ceiling

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Sodium Hydroxide

2 mg/m3 Ceiling

Note:

*Exposure Limit for Chlorine: 1 ppm Ceiling; 3 mg/m3 Ceiling (OSHA); 0.5 ppm TWA; 1 ppm STEL (ACGIH).

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly. NOTE: Where carbon monoxide may be generated, special ventilation may be required. Use local exhaust to control vapors, mists, or dusts.

Eye/Face Protection: Wear chemical safety goggles and a full face shield while handling this product. Wear a full-face respirator, if needed. Do not wear contact lenses.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant. Impervious.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts and mists. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Full chemical suit. Rubber apron. Rubber boots. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking. Handle in accordance with good industrial hygiene and safety practice. Wash with soap and water before meal times and at the end of each work shift.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.

Color: Clear. Yellow.

Odor: Mild chlorine odor.

Odor Threshold: N.D.

pH: > 12.00 (as is)

Freezing Point (deg. F): N.D.

Melting Point (deg. F): N.D.

Initial Boiling Point or Boiling Range: N.D.

Flash Point: N.A.

Flash Point Method: N.A.

Evaporation Rate (nBuAc = 1): N.D.

Flammability (solid, gas): N.D.

Lower Explosion Limit: N.A.

Upper Explosion Limit: N.A.

Vapor Pressure (mm Hg): N.D.

Vapor Density (air=1): N.D.

Specific Gravity or Relative Density: 1.234 @ 25 C

Solubility in Water: Soluble

Partition Coefficient (n-octanol/water): N.D.

Autoignition Temperature: No Data

Decomposition Temperature: N.D.

Viscosity: N.D.

% Volatile (wt%): N.D.

VOC (wt%): N.D.

VOC (lbs/gal): N.D.

Fire Point: N.D.

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10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Produces Chloroacetylene with chlorinated alkenes and heat. Reactions with various food sugars may form carbon monoxide. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product. Contact with acid or incompatible materials may cause a violent reaction with evolution of heat. May react with certain metals to produce flammable hydrogen gas.

Conditions to Avoid: Avoid excess exposure to air. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product. Contact with acid or incompatible materials may cause a violent reaction with evolution of heat. Avoid extreme temperatures. Avoid freezing.

Incompatible Materials: Acids. Acrolein. Acrylonitrile. Chlorinated hydrocarbons. Chlorine dioxide. Maleic anhydride. Nitroethane. Nitroparaffins. 2-Nitrophenol. Nitropropane. Phosphorus. Potassium persulfate. Tetrahydrofuran. Organic nitro compounds. Explosives. Organic peroxides. Halogenated compounds. Chlorinated alkenes. Carbohydrates. Metals such as aluminum, zinc, tin, etc. Food sugars. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products. Do not enter such areas until they have been well ventilated and carbon monoxide and oxygen levels have been determined to be within OSHA acceptable limits. If carbon monoxide and oxygen levels cannot be measured, wear NIOSH-approved, self-contained breathing apparatus. Food sugars.

Hazardous Decomposition Products: Potassium dioxide. Carbon dioxide. Carbon monoxide. Acrylic monomers. Irritating and/or toxic gases. Hydrogen gas. Flammable dichloroacetylene. Phosphine. Sodium oxide. Chlorine-containing gases.

11. TOXICOLOGICAL INFORMATION

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Potassium Hydroxide	Rat: 214 mg/kg	No Data	No Data
Sodium Tripolyphosphate	Rat: 3100 mg/kg	Rabbit: > 7940 mg/kg	No Data
Sodium Hydroxide	No Data	Rabbit: 1350 mg/kg	No Data
Sodium Hypochlorite	Rat: 8200 mg/kg	Rabbit: > 10,000 mg/kg	No Data

Acute Toxicity Estimate (ATE):

Oral: 2,140 mg/kg
Dermal: 58,199 mg/kg

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin.

Eye Contact: CORROSIVE-Causes severe irritation and burns. May cause: corneal damage. impaired vision. eye damage. permanent eye damage. blindness. Prolonged contact may cause: visual disturbances. irritation.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Contact may cause: redness. swelling. scab formation. Prolonged contact may cause: dermatitis (inflammation of the skin). permanent skin damage. Corrosive action causes burns and frequently deep ulceration with ultimate scarring.

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: CORROSIVE-Causes severe irritation and burns. May irritate: nose. mouth. throat. lungs. Dusts or mists may damage: respiratory tract. May cause: shortness of breath. wheezing. coughing. sneezing. choking. chest pain. ulceration and perforation of the nasal septum. impaired lung function. pulmonary edema. death. Repeated inhalation exposure may cause permanent lung damage.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. throat. stomach. gastrointestinal tract. May cause: nausea. vomiting. diarrhea. vomiting (bloody). abdominal pain. bleeding. ulcerations. severe gastrointestinal damage. perforation of the intestinal tract. death. Blood loss through

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damaged tissue can lead to low blood pressure and shock. Effects from chronic exposure would be similar to those from single exposure and may include effects secondary to tissue destruction. Aspiration into the lungs may occur during ingestion or vomiting resulting in mild to severe pulmonary injury and possibly death.

Medical Conditions Aggravated by Exposure to Product: Asthma. Respiratory system disorders. Eye disorders. Cardiovascular disorders. Skin disorders. Lung disorders.

Other: This material will affect all tissues with which it comes into contact. The severity of the tissue damage is a function of concentration, the length of tissue contact time, and local tissue conditions. After exposure, there may be a time delay before irritation and other effects occur.

Cancer Information:

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D002

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number: UN3266
Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS POTASSIUM HYDROXIDE, SODIUM HYPOCHLORITE)
Hazard Class: 8
Packing Group: II
Label Required: CORROSIVE
Reportable Quantity (RQ): 100# (Sodium Hypochlorite); 1000# (Potassium Hydroxide); 5000# (Sodium phosphate, tribasic); 1000# (Sodium Hydroxide).

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards:

<u>Immediate (Acute)</u>	<u>Delayed (Chronic)</u>	<u>Fire Hazard</u>	<u>Pressure Release</u>	<u>Reactive</u>			
Yes	No	No	No	Yes			
<u>Regulated Components:</u>					<u>CAS</u>	<u>CERCLA</u>	<u>SARA</u>
<u>Component</u>	<u>Number</u>	<u>RQ</u>	<u>EHS</u>	<u>313</u>	<u>U.S.</u>	<u>WI</u>	<u>Prop</u>
					<u>HAP</u>	<u>HAP</u>	<u>65</u>
Potassium Hydroxide	1310-58-3	Yes	No	No	No	Yes	No
Sodium Tripolyphosphate	7758-29-4	Yes	No	No	No	No	No
Sodium Hydroxide	1310-73-2	Yes	No	No	No	Yes	No
Sodium Hypochlorite	7681-52-9	Yes	No	No	No	No	No

***Prop 65 - May Contain the Following Trace Components:**

This product may contain a detectable level of (a) chemical(s) subject to California's Proposition 65.

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16. OTHER INFORMATION

Hazard Rating System

Health: 3

Flammability: 0

Reactivity: 1

* = Chronic Health Hazard

NFPA Rating System

Health: 3

Flammability: 0

Reactivity: 1

Special Hazard: None

MSDS Abbreviations

N.A. = Not Applicable

N.D. = Not Determined

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

C = Ceiling Limit

N.E./Not Estab. = Not Established

MSDS Prepared by: JAK

Reason for Revision: New format.

Revised: 09-06-2013

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The data in this Material Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

