

# SAFETY DATA SHEET

SUMMIT, NO. 287  
Product ID: FP028707  
Revised: 02-04-2019  
Replaces: 02-04-2019

## 1. IDENTIFICATION

Product Identifier: SUMMIT, NO. 287  
Other Identifiers: L0002175A/R30424  
CAS Number: MIXTURE  
Recommended Use: Cleaner  
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

GHS Classification(s): 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

GHS Label Elements:

GHS Hazard Symbols:



Signal Word: Danger

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/spray.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

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.  
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 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:**

**Inhalation Vapor:** 17.2 %  
**Inhalation Dust/Mist:** 17.2 %

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances/Mixtures:**

<u>Chemical or Common Name/Synonyms</u>	<u>CAS Number</u>	<u>% by Wt.</u>
Sodium Tripolyphosphate	7758-29-4	< 5 %
Sodium Hypochlorite	7681-52-9	< 5 %
Myristamine Oxide	3332-27-2	< 5 %
Potassium Hydroxide	1310-58-3	< 5 %
Sodium Hydroxide	1310-73-2	< 5 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

**4. FIRST-AID MEASURES**

**Description of Necessary Measures:**

**Eye Contact:** If in eyes: 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. Remove contact lens if easy to do. Do not attempt to neutralize with chemical agents.

**Skin Contact:** If on skin: 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.

**Inhalation:** If inhaled: 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 swallowed: 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. Do not give sodium bicarbonate, fruit juices or vinegar. If vomiting occurs spontaneously, keep airway clear and give more water.

**Most Important Symptoms/Effects, Acute and Delayed:**

**Eye Contact:** CORROSIVE-Causes severe irritation and burns. May cause: corneal damage. impaired vision. eye damage. permanent eye damage. blindness. ulcerations. High mist concentrations may cause: tissue destruction.

**Skin Contact:** CORROSIVE-Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Contact may cause: redness. swelling. dermatitis (inflammation of the skin). scab formation. ulceration. permanent skin damage. Effects from chronic skin exposure would be similar to those from single exposure and may include effects secondary to tissue destruction.

**Skin Absorption:** Material can penetrate to deeper layers of skin and corrosion will continue until removed. The severity of injury depends on the concentration and duration of exposure.



**Inhalation:** CORROSIVE-Causes severe irritation and burns. May irritate or damage: nose. mouth. throat. lungs. Vapors 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. pneumonitis. death. Effects may be delayed.

**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 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 cause chemical pneumonia and lung damage. Ingestion can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat and stomach. Damage may appear days after exposure.

**Indication of Immediate Medical Attention and Special Treatment Needed:** 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.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** For fires in area use appropriate media. For example: Water spray. Dry chemical. Carbon dioxide. Foam.

### **Specific Hazards Arising from the Chemical:**

**Fire and Explosion Hazards:** Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable hydrogen gas. May generate potentially explosive oxygen. Contact with combustible materials may cause a fire. Toxic fumes. Corrosive fumes. Fire or intense heat may cause violent rupture of packages.

**Hazardous Combustion Products:** Chlorine-containing gases. Metal oxides. Oxygen. Halogenated compounds. Toxic and/or hazardous gases. Carbon dioxide. Carbon monoxide. Sodium oxides.

**Special Protective Equipment and Precautions for Fire-Fighters:** 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. Water spray may be useful in minimizing or dispersing vapors. Run-off from fire control may cause pollution.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, Emergency 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.

**Methods and Materials for Containment and Clean Up:** Keep away from combustibles and easily oxidizable materials. Do not attempt to neutralize spilled materials. Toxic chlorine gas may be released. DO NOT use combustible materials such as sawdust. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. 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.

## 7. HANDLING AND STORAGE

**Precautions for Safe 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. Do not handle near an open flame, heat, or other sources of ignition. 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. CORROSIVE MATERIAL. Avoid dust or mist formation.

**Conditions for Safe Storage, including any Incompatibilities:** 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 freeze. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature. Avoid contact with combustible materials, wood and organic materials. Avoid storage on wood floors or near wooden walls, etc.. 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. 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### OSHA Exposure Guidelines:

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

### ACGIH Exposure Guidelines:

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

### Note:

\*Exposure Limit for Chlorine: 1 ppm Ceiling; 3 mg/m<sup>3</sup> 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.

### Individual Protection Measures:

**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 vapors or mists are present, wear: NIOSH-Approved respirator. 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. Rubber apron. Impervious clothing. Rubber boots. Full chemical suit.

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

SUMMIT, NO. 287  
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**Physical State:** Liquid.  
**Color:** Clear. Light yellow.  
**Odor:** Chlorine odor.  
**Odor Threshold:** N.D.  
**pH:** 13 (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:** 1.148 @ 25 Deg. 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.

## 10. STABILITY AND REACTIVITY

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur under normal conditions. Reactions with various food sugars may form carbon monoxide. Produces Chloroacetylene with chlorinated alkenes and heat. Sodium hydroxide can induce hazardous polymerization of acetaldehyde, acrolein, and acrylonitrile. 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. Contact with acids, halogenated organics, organic nitro compounds, glycols, or sodium tetrahydroborate may produce flammable hydrogen gas. Contact with 1,2-dichloroethylene, trichloroethylene, tetrachloroethane, or phosphorous can form spontaneously flammable chemicals.

**Conditions to Avoid:** Avoid exposure to light. Product degrades more rapidly with increasing temperature. 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. Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable hydrogen gas. Corrosive to steels at elevated temperatures. Contact of caustic potash cleaning solutions with food and beverage products (in enclosed vessels or spaces) can produce lethal concentrations of carbon monoxide gas.

**Incompatible Materials:** Acids. Metals such as aluminum, zinc, tin, etc. Magnesium. Chromium. Brass. Bronze. Copper. Lead. Other alkali sensitive metals or alloys. Organic materials. Organic nitro compounds. Chlorinated hydrocarbons. Fluorinated hydrocarbons. Acetaldehyde. Chlorine trifluoride. Hydroquinone. Maleic anhydride. Tetrahydrofuran. Acrolein. Phosphorous. Trichloroethylene. Leather. Wool. Phosphorous pentoxide. Halogenated compounds. Glycols. Explosives. Acrylonitrile. 1,2-Dichloroethylene. Tetrachloroethane. Organic peroxides. Sodium tetrahydroborate. Food sugars. Silver nitrate. Ammonia. Chloroform. Methanol. Zirconium. Strong oxidizing agents. Chlorine dioxide. Nitroethane. Nitroparaffins. 2-Nitrophenol. Nitropropane. Phosphorus.



Potassium persulfate. Chlorinated alkenes. Carbohydrates. Oxidizing agents. Flammable liquids. Can attack some forms of plastics. Sodium borohydride. Nitrous acid and other nitrosating agents.

**Hazardous Decomposition Products:** Carbon monoxide. Chlorine-containing gases. Reacts with acids to release poisonous chlorine gas. Sodium oxide. Hypochlorous acid. Oxygen. Hydrogen chloride. Carbon dioxide. Nitrogen oxides. Ammonia. Low molecular weight hydrocarbons. Potassium dioxide. May react with certain metals to produce flammable hydrogen gas. Hydrogen gas. Phosphine.

## 11. TOXICOLOGICAL INFORMATION

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

**Symptoms/Effects: Acute, Delayed and Chronic:**

**Eye Contact:** CORROSIVE-Causes severe irritation and burns. May cause: corneal damage. impaired vision. eye damage. permanent eye damage. blindness. ulcerations. High mist concentrations may cause: tissue destruction.

**Skin Contact:** CORROSIVE-Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Contact may cause: redness. swelling. dermatitis (inflammation of the skin). scab formation. ulceration. permanent skin damage. Effects from chronic skin exposure would be similar to those from single exposure and may include effects secondary to tissue destruction.

**Skin Absorption:** Material can penetrate to deeper layers of skin and corrosion will continue until removed. The severity of injury depends on the concentration and duration of exposure.

**Inhalation:** CORROSIVE-Causes severe irritation and burns. May irritate or damage: nose. mouth. throat. lungs. Vapors 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. pneumonitis. death. Effects may be delayed.

**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 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 cause chemical pneumonia and lung damage. Ingestion can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat and stomach. Damage may appear days after exposure.

**Numerical Measures of Toxicity:**

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Sodium Tripolyphosphate	Rat: 3120 mg/kg	Rabbit: > 7940 mg/kg	No Data
Sodium Hypochlorite	Rat: 9 g/kg	Rabbit: > 10000 mg/kg	No Data
Potassium Hydroxide	Rat: 284 mg/kg	No Data	No Data
Sodium Hydroxide	Rat: 140 - 340 mg/kg	Rabbit: 1350 mg/kg	No Data

**Acute Toxicity Estimate (ATE):**

<b>Oral:</b>	6935 mg/kg
<b>Dermal:</b>	90000 mg/kg

**Cancer Information:**

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

**Medical Conditions Aggravated by Exposure to Product:** Respiratory system disorders. Asthma. 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.

## 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. 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); 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:** Please see Section 2 of this SDS.

<u>Regulated Components:</u> <u>Component</u>	<u>CAS</u> <u>Number</u>	<u>CERCLA</u> <u>RQ</u>	<u>SARA</u> <u>EHS</u>	<u>SARA</u> <u>313</u>	<u>U.S.</u> <u>HAP</u>	<u>WI</u> <u>HAP</u>	<u>Prop</u> <u>65</u>
Sodium Hypochlorite	7681-52-9	Yes	No	No	No	No	No
Potassium Hydroxide	1310-58-3	Yes	No	No	No	Yes	No
Sodium Hydroxide	1310-73-2	Yes	No	No	No	Yes	No

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

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

## 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

SUMMIT, NO. 287  
Product ID: FP028707

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**SDS 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

SDS Prepared by: csh

**Reason for Revision:** Product formulation change.

**Revised:** 02-04-2019

**Replaces:** 02-04-2019

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The data in this 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.