

Safety Data Sheet

HYDRI-SAN NO. 468

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 2/15/2001

Revision date: 5/17/2024

SECTION 1: Identification

Identification

Product Name : HYDRI-SAN NO. 468
Product code : FP0468
CAS-No. : MIXTURE
Synonyms : No additional information available
EPA Registration number : 63838-14-2686
Recommended use : EPA registered pesticide
Restrictions on use : No additional information available

Supplier

Hydrite Chemical Co.
17385 Golf Parkway
Brookfield, WI, 53045
T 262-792-1450

Emergency telephone number

EMERGENCY RESPONSE NUMBERS:

24 Hour Emergency #: (414) 277-1311

CHEMTREC Emergency #: (800) 424-9300

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1
Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1
Carcinogenicity Category 1A
Hazardous to the aquatic environment – Acute Hazard Category 3
Hazardous to the aquatic environment – Chronic Hazard Category 1

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Danger

Hazard statements (GHS US) : May be corrosive to metals
Causes severe skin burns and eye damage
May cause cancer (Inhalation)
Harmful to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe dust, fume, gas, mist, spray, vapors. Wash hands thoroughly after handling. Avoid release to the environment. Wear protective clothing, eye protection, face protection, protective gloves.
Response	: If swallowed: rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Immediately call a doctor. Specific treatment (see supplemental first aid instruction on the SDS). Wash contaminated clothing before reuse. Absorb spillage to prevent material-damage. Collect spillage.
Storage	: Store in a secure manner. Store in corrosive resistant container with a resistant inner liner.
Disposal	: Dispose of contents/container to in accordance with local/regional/national/international regulations.

Hazards not otherwise classified

Hazards not otherwise classified	: May be harmful or fatal if swallowed and enters airways. May react with certain metals to form explosive/flammable hydrogen gas. May react violently with water.
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Unknown acute toxicity (GHS US)

Unknown acute toxicity (GHS US)	: 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 12.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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SECTION 3: Composition/Information on ingredients

Substances/ Mixtures

Name	Product identifier	%	GHS US classification
PHOSPHORIC ACID	CAS-No.: 7664-38-2	~ 45.0	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318
C(10-16)-ALKYLBENZENESULFONIC ACID	CAS-No.: 68584-22-5	~ 10.2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 2, H411

Name	Product identifier	%	GHS US classification
SULFURIC ACID	CAS-No.: 7664-93-9	< 1.0	Met. Corr. 1, H290 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1A, H314 Eye Dam. 1, H318 Carc. 1A, H350 STOT SE 3, H335 Aquatic Chronic 3, H412

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

Comments: Alternate CAS# for C(10-16)-ALKYLBENZENESULFONIC ACID (68584-22-5): 27176-87-0, 85536-14-7

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after 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.
First-aid measures after 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. Do not apply oils, ointments, or creams unless directed by a physician.
First-aid measures after 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. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after 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.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Vapor, dusts, mists or spray may irritate or burn: respiratory tracts, nose, mouth, and throat. . Vapors or mists may cause: Cough. Shortness of breath. Pulmonary edema. Pneumonitis. Effects may be delayed.
Symptoms/effects after skin contact	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. severe skin irritation, redness, dermatitis. Contact may cause: dermatitis(inflammation of the skin), ulceration and permanent skin damage.
Symptoms/effects after eye contact	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Symptoms may include: redness, itching, tears. stinging. swelling. blurred vision. May cause: Permanent eye damage. Can cause blindness.
Symptoms/effects after ingestion	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. May irritate or burn: mouth, throat, esophagus and stomach. May cause irritation to the digestive tract. May cause: abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures, hemorrhaging and permanent damage. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.
Immediate medical attention and special treatment, if necessary	: Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : No additional information available

Specific hazards arising from the chemical

Fire hazard : Contact with metals could evolve flammable hydrogen gas.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products : Toxic fumes may be released. Carbon oxides (CO, CO₂). Corrosive vapors. Organic compounds. Phosphine. Phosphorus oxides. Sulfur oxides (SO_x). Sulfuric acid.
Firefighting instructions : Evacuate personnel to a safe area. Do not enter fire area without proper protective equipment, including respiratory protection. Stay upwind/keep distance from source. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures : Caution - this product can cause the floor to be very slippery.
Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Do not exceed the occupational exposure limits (OEL).
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate spillage area.

Environmental precautions

Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with water and neutralize with Soda Ash or Lime and dispose of properly. Adequate ventilation is required if soda ash is used, because of the consequent release of carbon dioxide gas. Avoid direct discharge into drains.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust or mist formation. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing. Do NOT taste or swallow. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Contact with water may cause violent reaction with evolution of heat. To Dilute: add product slowly to lukewarm water; not water to product.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Technical measures : CORROSIVE MATERIAL.

Storage conditions	: Keep in a cool, well-ventilated place away from heat. Store in corrosive resistant container with a resistant inner liner. Store in a secure manner. DO NOT FREEZE.
Incompatible materials	: Metals. Keep away from incompatibles. Refer to Section 10 on Incompatible Materials.
Storage temperature	: No additional information available
Heat-ignition	: Keep away from all sources of ignition. Store away from direct sunlight or other heat sources.
Packaging materials	: Keep only in the original container. Do not store in unlabeled or mislabeled containers. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

Control parameters		
Component	ACGIH	OSHA
PHOSPHORIC ACID	3 mg/m ³ STEL, 1 mg/m ³ TWA	1 mg/m ³ TWA
C(10-16)-ALKYLBENZENESULFONIC ACID	No data available	No data available
SULFURIC ACID	0.2 mg/m ³ TWA (thoracic particulate matter)	1 mg/m ³ TWA

Appropriate engineering controls

Appropriate engineering controls	: General room ventilation and local exhaust are required. 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.
Environmental exposure controls	: Avoid release to the environment.

Individual protection measures/Personal protective equipment

Personal protective equipment	: Wear recommended personal protective equipment. Provide readily accessible eye wash stations and safety showers.
Hand protection	: Protective gloves. Chemical-resistant. Impervious. Acid-proof. Check gloves for leaks before use.
Eye protection	: Wear chemical safety goggles and a full face shield while handling this product. Do not wear contact lenses. Wear additional eye protection such as chemical safety goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.
Skin and body protection	: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Rubber boots. Rubber Apron. Full-rubber acid suit.
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. NIOSH-Approved Supplied Air Respirator (SAR). If vapors, mists or spray is present, wear: 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 information	: 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. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear. Light yellow/brown.
Odor	: No odor.
Odor threshold	: No data available
pH	: 1 (as is)

HYDRI-SAN NO. 468
Product code: FP0468

Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 201 °F estimated
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.315 @ 25 °C
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

SECTION 10: Stability and reactivity

Information on stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerization will not occur under normal conditions. Contact with metals could evolve flammable hydrogen gas. Contact with water may cause violent reaction with evolution of heat. To Dilute: add product slowly to lukewarm water; not water to product. Mixing with strong bases can cause high heat of reaction and generate steam. Phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides, and aldehydes. Phosphoric acid forms toxic fumes with cyanides, sulfides, fluorides, organic peroxides, and halogenated organics. Phosphoric acid mixtures with nitromethane are explosive.
Conditions to avoid	: Keep away from heat, sparks and flame. High temperature.
Incompatible materials	: alkalis. amines. bases. strong oxidizing agents. strong reducing agents. aluminum. aldehydes. strong acids. strong bases. nitrates. water. alcohols. glycols. styrene. sulfides. carbonates. reducing agents. alkali metals. steel. brass. sulfites. metals. fluorine. sulfur trioxide. phosphorous pentoxide. organic materials. copper. cyanides. carbides. combustible materials. fulminates. chlorates. powdered metals. and many other reactive substances. organic peroxides. ketones. halogens. nitromethane. sulfur. mild steel. epoxides. caustics. amides. sodium tetrahydroborate. azo-compounds. carbamates. esters. phenols. cresols. organophosphates. explosives. unsaturated halides. mercaptans. picrates. nitrogen compounds. bronze. fluorides. halogenated organics. metals.
Hazardous decomposition products	: Toxic fumes may be released. Phosphorous oxide. phosphine. organic acids. Sulfur oxide. Sulfuric acid. alcohols. aldehydes. ketones. Ethers. Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Numerical measures of toxicity

Component	Oral LD50	Dermal LD50	Inhalation LC50
PHOSPHORIC ACID	Rat: 1530 mg/kg	Rabbit: 2740 mg/kg	Rat: > 850 mg/m³

HYDRI-SAN NO. 468
Product code: FP0468

C(10-16)-ALKYLBENZENESULFONIC ACID	Rat: 775 mg/kg	Rabbit: 2000 mg/kg	Rat: > 1.9 mg/l air
SULFURIC ACID	Rat: 2140 mg/kg	No data available	Rat: 0.375 mg/l/4h Rat (Dust/Mist): 0.375 mg/l

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Inhalation). This product contains 0.1% or more of the following chemicals listed by NTP, IARC, or OSHA as known or possible carcinogens: *Sulfuric acid mist Sulfuric acid, per se, is not listed as a carcinogen by OSHA, the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the ACGIH. IARC has concluded that there is sufficient evidence that occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogen to humans, resulting in an increased incidence of primary laryngeal cancers. The ACGIH lists strong inorganic acid mists containing sulfuric acid as a suspected human carcinogen (A2) and the NTP have classified inorganic acid mists containing sulfuric acid as a known human carcinogen. OSHA does not list sulfuric acid mist as a carcinogen.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Likely routes of exposure	: Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Vapor, dusts, mists or spray may irritate or burn: respiratory tracts, nose, mouth, and throat. . Vapors or mists may cause: Cough. Shortness of breath. Pulmonary edema. Pneumonitis. Effects may be delayed.
Symptoms/effects after skin contact	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. severe skin irritation, redness, dermatitis. Contact may cause: dermatitis(inflammation of the skin), ulceration and permanent skin damage.
Symptoms/effects after eye contact	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Symptoms may include: redness, itching, tears. stinging. swelling. blurred vision. May cause: Permanent eye damage. Can cause blindness.
Symptoms/effects after ingestion	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. May irritate or burn: mouth, throat, esophagus and stomach. May cause irritation to the digestive tract. May cause: abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures, hemorrhaging and permanent damage. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.
Medical Conditions Aggravated by Exposure	: Eye disorders. Skin disorders. Dermatitis. Respiratory system disorders. Lung disorders.
Other information	: No additional information available

SECTION 12: Ecological information

Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects. Harmful to aquatic life.

HYDRI-SAN NO. 468 (MIXTURE)	
LC50 - Fish [1]	40.8 mg/l P. Promelas (fathead minnow)
EC50 - Crustacea [1]	87 mg/l C. dubia
NOEC chronic fish	25 mg/l P. Promelas (fathead minnow)
NOEC chronic crustacea	< 1.56 mg/l C. dubia

Persistence and degradability

No additional information available

SECTION 13: Disposal considerations

Disposal methods

Regional waste regulation	: U.S. - RCRA (Resource Conservation Recovery Act) - D Series Wastes - Corrosivity D002.
Waste treatment methods	: Dispose of in accordance with all local, state and federal regulations.
Additional information	: Do not re-use empty containers. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Since emptied containers retain product residue, follow label warnings even after container is emptied. Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

SECTION 14: Transport information

Modes of transport

DOT (Department of Transportation):

Identification Number (DOT)	: UN1760
Proper Shipping Name (DOT)	: Corrosive liquids, n.o.s. (CONTAINS : Dodecylbenzenesulfonic acid, Phosphoric Acid)
Hazard Class (DOT)	: 8
Packing group (DOT)	: III
Labels Required (DOT)	: Corrosive



IMDG (International Maritime Dangerous Goods Code):

Identification Number (IMDG)	: UN1760
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, N.O.S. (CONTAINS DODECYLBENZENESULFONIC ACID, Phosphoric Acid)
Hazard Class (IMDG)	: 8
Packing group (IMDG)	: III
Labels Required (IMDG)	: Corrosive substances



IATA (International Air Transport Association):

Identification Number (IATA)	: UN1760
Proper Shipping Name (IATA)	: Corrosive liquid, n.o.s. (CONTAINS Dodecylbenzenesulfonic acid, Phosphoric acid)
Hazard Classes (IATA)	: 8
Packing group (IATA)	: III
Labels Required (IATA)	: Corrosive



Environmental hazards

No additional information available

Other transport information

The transportation classifications provided on this SDS are for informational purposes only and based upon the properties of the product as described in this document. The listed transportation classifications may not address variations due to changes in package size, mode of shipment, regional or country regulations, or other regulatory descriptors.

DOT RQ Table

Name	DOT RQ
PHOSPHORIC ACID	5000 lbs RQ
C(10-16)-ALKYLBENZENESULFONIC ACID	1000 lbs RQ
SULFURIC ACID	1000 lbs RQ

SECTION 15: Regulatory information

US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Sulfuric acid appears on the Section 313 List. However, the listing only applies to the aerosol forms of sulfuric acid.

PHOSPHORIC ACID (7664-38-2)

CERCLA RQ	5000 lb
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C(10-16)-ALKYLBENZENESULFONIC ACID (68584-22-5)

CERCLA RQ	1000 lb
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SULFURIC ACID (7664-93-9)

CERCLA RQ	1000 lb
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RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
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Section 302 EPCRA Reportable Quantity (RQ)	1000 lb
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SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
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FIFRA Labelling

EPA Registration Number	63838-14-2686
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This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

SULFURIC ACID (7664-93-9)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

*Sulfuric acid mist

US State regulations

Component	CAS No.	State or local regulations
PHOSPHORIC ACID	7664-38-2	Wisconsin HAP

SECTION 16: Other information

Hazard Rating System

Health: 3 *
Flammability: 0
Physical: 0

NFPA Rating System

NFPA health hazard: 3
NFPA fire hazard: 0
NFPA reactivity: 0

Abbreviations and acronyms

HAP	Hazardous Air Pollutant
VOC	Volatile Organic Compound
STEL	Short Term Exposure Limit
TWA	Total Average Weight
RQ	Reportable Quantity

Revision date: 5/17/2024

Supersedes: 1/2/2024

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Indication of changes: Changes made throughout the SDS.New format.

SDS Prepared by: EP

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.