HYDRITE CHEMICAL CO.

300 N. Patrick Blvd.
P.O. Box 0948
Brookfield, WI 53045
Main 262.792.1450
Fax 262.792.8721
www.hydrite.com

WDNR SPILL REPORT

DATE: 11/19/21

1. NAME, ADDRESS, AND TELEPHONE NUMBER OF OPERATOR / FACILITY

   Erik Reinhard
   Hydrite Chemical Co. (WID000808824)
   114 North Main Street
   Cottage Grove, WI 53527
   608-839-8110

2. DATE, TIME, AND TYPE OF INCIDENT

   Date: 11/05/21
   Time: 09:00 am
   Duration: 1 hour to fully clean
   Type: Open Valve

3. NAME, LOCATION, AND QUANTITY OF MATERIALS RELEASED

   44 gallons (466 lbs.) of Caustic Soda Liquid 25% was released into the South Process area near R5.

4. DESCRIPTION OF INCIDENT AND ASSESSMENT OF POTENTIAL HAZARDS TO HUMAN HEALTH AND/OR THE ENVIRONMENT.

   While charging caustic into R5, a valve was left open. This opened valve caused the material to be released into the production area. The charge was stopped, and the valve was closed.

   This spill occurred near R5 in the South Process Room. This spill occurred within our production area. This area is sloped and concrete to prevent material from being released into the environment. Due to the spill's location, the cold temperatures, and no detection of vapors at the property line, the risk to human health and the environment was low.

   The spill was called into the state hotline by lab personnel.

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5. QUANTITY AND DISPOSITION OF RECOVERED MATERIAL

The spilled material in its entirety was collected using the area sump and the pot still. The area was then washed, and the material was collected and disposed of. The material was transferred to drums and disposed of as hazardous waste.

ATTACH: Spill Report with SDS

CC: Jonathan Stoffer: WDNR Hazardous Waste Specialist
Doug Coenen: WDNR Waste Management Specialist
Trevor Bannister: Hydrogeologist
Hydrite Chemical Co. Legal File

CHEMICAL RELEASE REPORT

HYDRITE CHEMICAL CO.

Branch:	CGE	**Completed By:**	Adam Gunnelson
Date of Incident:	11/5/21	**Hydrite Contact:**	Dale Frankie
Time of Incident:	0900	**Address:**	114 N Main St
Duration of Incident:	10 min	**Phone:**	608-339-8117

Chemical(s) Released	Total Est. Quantity Released (lbs)	Est. Quantity of Release to Environment (lbs)	CERCLA RQ (lbs)	EHS RQ (lbs)	Contingency Plan Implemented
Hazardous Waste (Check One) ☐ Yes ☑ No					
25% Caustic	~~500lbs~~ ~~472lbs~~ 466lbs	0			☐Yes ☐ No
AL0025	11/9/21				

Names of Contact & Agencies Notified	Date & Time	Comments
CGE Email List Spill Report	11/5/21 1029	Corrected Quantity Released

Exact Location of Incident (Check One):	☑ Inside ☐ Outside	**Location:** South Process	**County Where Release Occurred**
Media Released into (Check One):	☐ Air ☐ Soil ☐ Water ☑ Containment ☑ Concrete		Dane
Surface Water Affected?	☐ Yes ☑ No	**Transportation Related?**	☐ Yes ☑ No
Ground Water Affected?	☐ Yes ☑ No	**Hydrite The Carrier?**	☐ Yes ☑ No
Cause of Incident? (Check One)	☐ SOP ☐ Training ☐ Equipment ☑ Personnel	**Type of Incident? (Check One)**	☑ Spill ☐ Fire ☐ Explosion

DESCRIBE:

Charging castic to R5 valve open and started running onto floor

Physical State	Color	Weather Condition		Local Units on Scene
☐ Solid	clear	Wind Speed:		☐ Emergency Government
☐ Semisolid		Direction:		☐ Fire Department
☑ Liquid	**Odor**	Temperature:		☐ Law Enforcement
☐ Gas		Precipitation:	☐ Yes ☐ No	☐ EMS
		Direction of Spill Movement:		☐ Other

CHEMICAL RELEASE REPORT

HYDRITE CHEMICAL CO.

Actions Taken on Scene

valve shut room issolated operater Donned PPE pumped out

Estimated Recovery and Disposition of Material

100 % 1 operator 50 min

Injuries (Describe)

0

# of Fatalities:	0
# of Hospitalized:	0
# of Non-Hospitalized:	0

Property Damage (Describe)		**Loss Value**	
Carrier Damage:	$	Product Loss:	$
		Decontamination/Cleanup:	$
Public/Private Property Damage:	$	Other:	$
		TOTAL LOSS:	**$**

Packaging Information (Complete for Reportable Transportation Incidents)

Type of Packaging, including inner receptacles:		Capacity of Weight per Unit Package:		
Serial Number of Cylinders, Portable Tanks, Cargo Tanks, Tank Cars:		Number of Packages of Same Type that failed in identical manner:		
US Specification Package Identification (1A1/Y1.2/250/98USA):		Number of Packages of Same Type in Shipment:		
Other Packaging Markings:		If Reconditioned or Requalified	Registration Number of Symbol:	
Name, Address, Symbol, or Registration Number of Packaging Manufacturer:			Date of Last Test or Inspection:	
		Exemption/Approval/Competent Authority Number (if applicable):		

Complete if Transportation Related (attach Bill of Lading or Waste Manifest)

Type of Vehicle:	☐ Cargo Tank	☐ TOFC/COFC	Incident Occurred During:	
	☐ Van Truck/Trailer	☐ Aircraft	Was the spill a result of a vehicle accident/derailment?	☐ Yes ☐ No
	☐ Flat Bed Truck Trailer	☐ Barge	Estimated Speed:	
	☐ Tank Car	☐ Ship	Total Number of Lanes:	
	☐ Rail Car	☐ Other	Highway Type:	☐ Divided/Limited Access ☐ Undivided

Additional Comments: (Recommendations and Preventive actions shall be addressed in SOP AD052AF: Incident Reporting, Investigation & Corrective Action

SAFETY DATA SHEET

CAUSTIC SODA LIQUID 25%
Product ID: AL0025
Revised: 06-25-2014
Replaces: 06-24-2014

1. IDENTIFICATION

Product Name:	CAUSTIC SODA LIQUID 25%
Synonyms:	Lye; Sodium Hydroxide Solution; Alkali; Caustic
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, vapors 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. 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: Reacts with most metals to form explosive/flammable hydrogen gas. May react violently with water. May react with various food sugars to form carbon monoxide.

Percentage of Components with Unknown Acute Toxicity:

Oral: 25.0 %
Inhalation Vapor: 25.0 %
Inhalation Dust/Mist: 25.0 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% by Wt.
Sodium Hydroxide	1310-73-2	25 %

4. FIRST-AID 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. Do not attempt to neutralize with chemical agents. Oils or ointments should not be used at this time. Remove contact lenses after the first 5 minutes and continue flushing.

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. 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. Do not apply oils or ointments unless ordered by the physician. 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. If vomiting occurs spontaneously, keep airway clear and give more water.

Note to Physicians:
The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Most Important Symptoms/Effects:

Eye Contact: CORROSIVE-Causes severe irritation and burns. Small amounts may cause: blistering. disintegration. scarring. clouding. ulcerations. permanent eye damage. blindness. corneal damage. Mist may cause: irritation. High mist concentrations may cause: tissue destruction. Glaucoma and cataracts are possible late developments. Effects may vary depending on length of exposure, solution concentration and first aid measures.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Note that irritation may follow an initial latency. The latency may vary as much as hours for dilute solutions to minutes for more concentrated solutions. Prolonged contact, even with dilute concentrations, can cause tissue destruction and permanent skin damage. Repeated exposure may cause: dermatitis (inflammation of the skin).

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: CORROSIVE-Causes severe irritation and burns. Dusts or mists may irritate: nose. mouth. throat. respiratory tract. Dusts or mists may cause damage to the: upper respiratory tract. lungs. May cause: coughing. sneezing. running nose. sore throat. shortness of breath. wheezing. tightness of the chest. chest pain. choking. impaired lung function. pneumonitis. pulmonary edema. Effects may be delayed.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. throat. stomach. esophagus. gastrointestinal tract. Ingestion can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat and stomach. May be fatal if swallowed. May cause: abdominal pain. nausea. vomiting. diarrhea. bleeding. fall in blood pressure. shock. collapse. gastrointestinal ulceration. Damage may appear days after exposure. Aspiration into the lungs may occur during ingestion or vomiting resulting in mild to severe pulmonary injury and possibly death.

5. FIRE-FIGHTING MEASURES

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

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, 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.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide. Sodium oxides. Irritating and/or toxic 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 spill, place into drums for proper disposal. Neutralize remaining residue with dilute Hydrochloric Acid solution and dispose of properly. 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. CAUTION: This product may react violently with acids and water.

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. CORROSIVE MATERIAL. Avoid dust or mist formation. Add product very slowly while stirring constantly. If product is added too rapidly or without stirring and becomes concentrated at the bottom of the mixing vessel, excessive heat may be generated resulting in dangerous boiling and spattering and possible immediate violent irruption of highly caustic solution.

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. Highly corrosive to most metals with evolution of hydrogen gas. Do not freeze. Do not expose sealed containers to temperatures above 104 Deg. F. 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. See Section 10 for incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
Sodium Hydroxide	2 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	Limits
Sodium Hydroxide	2 mg/m3 Ceiling

Engineering Controls: General room ventilation is required. To keep exposure below established limits, local exhaust may be necessary. Avoid creating dust or mist. Maintain adequate ventilation. Do not use in closed or confined spaces. 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.

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

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Natural rubber. Butyl rubber. Neoprene. Nitrile. Polyvinyl chloride. Polyethylene.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts and mists. NIOSH-Approved Supplied Air Respirator (SAR). 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. Rubber boots. Protective clothing.

General Hygiene Conditions: 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. Colorless.
Odor: Mild odor.
Odor Threshold: N.D.
pH: > 12.00
Freezing Point (deg. F): 0
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: ~ 234 °F
Flash Point: None
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: 1.274 @25C
Solubility in Water: Complete
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): N.D.
VOC (wt%): 0

VOC (lbs/gal): 0
Fire Point: N.D.

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. 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. Reactions with various food sugars may form carbon monoxide.

Conditions to Avoid: Avoid moisture. Avoid extreme temperatures. Keep away from incompatibles.

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.

Hazardous Decomposition Products: Hydrogen gas. Carbon monoxide. Flammable dichloroacetylene. Phosphine. Thermal decomposition may release: Sodium oxide.

11. TOXICOLOGICAL INFORMATION

Component	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide	No Data	Rabbit: 1350 mg/kg	No Data

Acute Toxicity Estimate (ATE):
Dermal: 5,400 mg/kg

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

Eye Contact: CORROSIVE-Causes severe irritation and burns. Small amounts may cause: blistering. disintegration. scarring. clouding. ulcerations. permanent eye damage. blindness. corneal damage. Mist may cause: irritation. High mist concentrations may cause: tissue destruction. Glaucoma and cataracts are possible late developments. Effects may vary depending on length of exposure, solution concentration and first aid measures.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Note that irritation may follow an initial latency. The latency may vary as much as hours for dilute solutions to minutes for more concentrated solutions. Prolonged contact, even with dilute concentrations, can cause tissue destruction and permanent skin damage. Repeated exposure may cause: dermatitis (inflammation of the skin).

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: CORROSIVE-Causes severe irritation and burns. Dusts or mists may irritate: nose. mouth. throat. respiratory tract. Dusts or mists may cause damage to the: upper respiratory tract. lungs. May cause: coughing. sneezing. running nose. sore throat. shortness of breath. wheezing. tightness of the chest. chest pain. choking. impaired lung function. pneumonitis. pulmonary edema. Effects may be delayed.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. throat. stomach. esophagus. gastrointestinal tract. Ingestion can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat and stomach. May be fatal if swallowed. May cause: abdominal pain.

nausea. vomiting. diarrhea. bleeding. fall in blood pressure. shock. collapse. gastrointestinal ulceration. Damage may appear days after exposure. 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: Skin disorders. Lung disorders. Cardiovascular disorders. Eye disorders. Respiratory system disorders.

Other: None known.

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. If approved, neutralize material and flush to sewer. 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:	UN1824
Proper Shipping Name:	Sodium Hydroxide Solution
Hazard Class:	8
Packing Group:	II
Label Required:	CORROSIVE
Reportable Quantity (RQ):	1000# (Sodium Hydroxide).

15. REGULATORY INFORMATION

TSCA Inventory Status: This product or all components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	No	No	No	Yes

Regulated Components:

Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Sodium Hydroxide	1310-73-2	Yes	No	No	No	Yes	No

***Prop 65 - May Contain the Following Trace Components:**
Chromium
Nickel
Arsenic
Mercury
Lead

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: NAO

Reason for Revision: New format. Changes made throughout the SDS.

Revised: 06-25-2014
Replaces: 06-24-2014

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.