

SAFETY DATA SHEET

Issue Date 31-Dec-2014

Revision Date 31-Dec-2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier Product Name	Drain Solve Liquid Caustic Drain Opener
Other means of identification	
Product Code	4165-08, 4165-24
Synonyms	None
Details of the sumpliar of the sofety	data abaat
Details of the supplier of the safety	
Company Name	Nu-Calgon
	2008 Altom Court
	St. Louis, MO 63146
	(800) 554-5449
	http://www.nucalgon.com/
Emergency telephone number	
	Chamtrag 1 800 434 0300
Emergency Telephone	Chemtrec 1-800-424-9300
	2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Causes severe skin burns and eye damage Harmful to aquatic life with long lasting effects



Appearance Clear

Physical state Liquid

Odor Odorless

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Avoid release to the environment

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician Specific Treatment (See Section 4 on the SDS) 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 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Immediately call a POISON CENTER or doctor/physician IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Water	7732-18-5	60-100	*
Sodium Hydroxide	1310-73-2	10-30	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures	
General advice	Immediate medical attention is required.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye contact	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Inhalation	Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms	Any additional important symptoms and effects are described in Section 11: Toxicology Information.
Indication of any immediate medica	al attention and special treatment needed
Note to physicians	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion data Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.		
Environmental precautions			
Environmental precautions	Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.		
Methods and material for containment and cleaning up			
Methods for containment	Prevent further leakage or spillage if safe to do so.		
Methods for cleaning up	Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.		

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.
Conditions for safe storage,	including any incompatibilities
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in

	properly labeled containers.	·
Incompatible materials	Incompatible with strong acids and bases. Incompatible with oxidizing agente Aluminum.	s. Strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³
1310-73-2		(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

NIOSH IDLH Immediately Dangerous to Life or Health

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Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls	Showers, Eyewash stations & Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	Tight sealing safety goggles. Face protection shield.
Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene	Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Avoid breathing (dust, vapor, mist, gas). Use personal protective equipment as required. Take off all contaminated clothing and wash it before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance	Liquid Clear
Color	Colorless
Odor	Odorless
Odor threshold	No Information available
Property	<u>Values</u>

Remarks • Method

рН	13.5 +
Specific Gravity	1.35
Viscosity	< 25 cP @ 25°C
Melting point/freezing point	No Information available
Flash point	None
Boiling point / boiling range	EST 290 ° F
Evaporation rate	No Information available
Flammability (solid, gas)	
Flammability Limits in Air	
Upper flammability limit:	No Information available
Lower flammability limit:	No Information available
Vapor pressure	No Information available
Vapor density	No Information available
Water solubility	Complete
Partition coefficient	No Information available
Autoignition temperature	No Information available
Decomposition temperature	No Information available

Other Information

Density Lbs/Gal	11.25
VOC Content (%)	0%

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidizing agents. Strong acids. Aluminum.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	The primary effects and toxicity of this material are due to it corrosive nature.
Inhalation	Inhalation of vapors in high concentration may cause severe irritation or burns to the respiratory tract.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin Contact	Corrosive. Contact with skin may cause severe irritation and burns.
Ingestion	Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	Yes	Yes
Sodium Hydroxide 1310-73-2	Yes	= 1350 mg/kg (Rabbit)	Yes
Information on toxicological eff	fects		
Symptoms	No Information available.		
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Sensitization	No Information available.		
Germ cell mutagenicity	No Information available.		
Carcinogenicity	No Information available.		
Reproductive toxicity	No Information available.		
STOT - single exposure	No Information available.		
STOT - repeated exposure	No Information available.		
Chronic toxicity	necrosis. Bronchial irritat common. Gastrointestina Possible risk of irreversible		nt attacks of pneumonia are
Target organ effects Aspiration hazard	EYES, Respiratory systen No Information available.	n, Skin.	

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide	Yes	45.4: 96 h Oncorhynchus mykiss	Yes
1310-73-2		mg/L LC50 static	

Persistence and degradability

No Information available.

Bioaccumulation

No Information available.

Other adverse effects

No Information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

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Chemical Name	California Hazardous Waste Status
Sodium Hydroxide	Toxic
1310-73-2	Corrosive

14. TRANSPORT INFORMATION

This corrosive material, as per 49 CFR §173.154 and when the product meets the packaging requirements of 49 CFR §173.154 (b)(2) [inner packagings not over 5.0 L (1.3 gallons) net capacity each for liquid] is excepted from labeling and placarding requirements so long as the material is not offered for transport by aircraft

<u>DO</u> .	Γ	

DOT	Regulated
UN/ID No.	UN3266
Proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Hazard Class	8
Packing Group	I
Special Provisions	B2, IB2, N34, T7, TP2
Description	UN3266, Corrosive liquid, basic, inorganic, n.o.s. (contains Sodium Hydroxide), 8, II
Emergency Response Guide Number	154
TDG_	

roxide), 8, II
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15. REGULATORY INFORMATION

International Inventories	
TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

	- Reportable CWA - Toxic Po uantities	Ilutants CWA - Priority Pollutants	CWA - Hazardous Substances
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Sodium Hydroxide	1000 lb	Yes	Yes	Х
1310-73-2				

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide	1000 lb	Yes	RQ 1000 lb final RQ
1310-73-2			RQ 454 kg final RQ
US State Degulations			

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium Hydroxide	Х	Х	Х
1310-73-2			

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION						
NFPA	Health hazards	3	Flammability	0	Instability 0	Physical and Chemical Properties Yes
HMIS	Health hazards	3	Flammability	0	Physical hazards 0	Personal protection D
Issue Date Revision Date Revision Note No Information available Disclaimer	31-De	ec-2014 ec-2014	-			

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION					
Company Name	Phone Number		CHEMTREC		
Nu-Calgon Wholesaler, Inc.	(314) 469-7000 / (800)	554-5499		(800) 424-9300	
Street Address	City	State	<u>Postal</u>	Code	Last Update
2008 Altom Court	St. Louis	MO	63146	-4151	11/9/06
Product Name	Product Number	Product Use			EPA Registration #
Drain-Solve	4165	Liquid caustic dra	in clean	er.	N/A

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredieuts</u>	<u>% By Wt.</u>	CAS Number	TLV	<u>PEL</u>
Sodium Hydroxide	35-45%	1310-73-2	2 ppm	2 ppm

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Overexposure to product has the following effects: Inhalation of vapors may cause pulmonary edema, collapse of eirculatory system and damage to the upper respiratory system and collapse. Inhalation may cause coughing, throat burning, choking, bronchitis and difficult breathing. Ingestion is harmful and may be fatal. Ingestion may cause burns.

Potential Health Effects

Eves: Corrosive. Causes eye damage. Wear splash proof goggles. Provide convenient eyewash stations. Flush immediately with water for 15 minutes. Get prompt medical attention.

Skin: Corrosive. Causes irritation and burns. Wear alkali-resistant protective gloves, boots, and clothing. Provide convenient safety showers. Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes. Get medical attention if burns persist.

Ingestion: Corrosive. Causes irritation and burning in mouth, esophagus, throat and stomach. Avoid swallowing. Can be fatal. Drink lots of water or, preferably, milk. Get medical attention. Do not induce vomiting.

Inhalation: Breathing of mists causes respiratory irritation and can cause burns. Wear approved alkali mist respirator if exposure is likely. Remove to fresh air. Give artificial respiration or oxygen if needed, Get prompt medical attention.

Chronic Exposure: EYES & SKIN: Corrosive to tissues. Causes burns to eyes and skin. INGESTION: Harmful if swallowed. Burns to mouth, throat and stomach are likely. INHALATION: Mists may cause coughing and irritation to respiratory tract.

Careiuogenicity: No Data.

Medical Conditions Aggravated be Exposure: No Data.

SECTION 4 – FIRST AID MEASURES

Eves: Flush immediately with water for 15 minutes. Get prompt medical attention.

Skin: Wear alkali-resistant protective gloves, boots, and clothing. Provide convenient safety showers. Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes. Get medical attention if burns persist.

Ingestion: Drink lots of water or, preferably, milk. Get medical attention if effects persist. Do not induce vomiting.

Inhalation: Wear approved alkali vapor/mist respirator if exposure is likely. Remove to fresh air. Give artificial respiration or oxygen if needed. Get prompt medical attention.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: No Data.ºF

Autoignition Temp: No Data.ºC/No Data.ºF

Hazardous Products of Combustion: No Data.

Flammable Limits in Air: No Data.

Extinguishing Media: Avoid skin and eye contact, and breathing of vapors. Wear head and body protection and alkali respirator if exposure to liquid is likely.

Fire and Explosion Hazards: This product can react with metals to release flamable gas. Firemen may need to protect against this.

Special Firefighting Procedures: Avoid skin and eye contact, and breathing of vapors. Wear head and body protection and alkali respirator if exposure to liquid is likely. Avoid strong acid and material that is not reisistant to strong alkalis such as active metals (zinc, aluminium, magnesium, etc.)

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill or Leak: Small spills can be flushed into normal drainage or into ground with copious amounts of water, or taken up with absorbent material. Larger spills should be contained by dike or other methods and held for collection and/or reuse, or for neutralization with acid before collection & disposal. People should use eye and skin protection & respirator.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Check daily for any leaks from containers, vessels, pumps, and piping. Have water hoses and acid convenient to neutralize. Only use containers and equipment designed for alkali service.

Storage Requirements: Areas of use and storage should be ventilated adequately to reduce vapors below odor level.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: A NIOSH - approved respirator for alkali is recommended.

Eye Protection: Full face shield or goggles.

Protective Clothing: Protective clothing and gloves.

Exposure Guidelines: No Data.

Specific Engineering Controls (such as ventilation, enclosed process): Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Wash thoroughly after handling. Wash clothing after exposure/use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Clear Liquid	Freezing Point: No Data.°C/No Data.°F	% Volatile by Weight: No Data.%
Color: Colorless	<u>Vapor Density [air =1]</u> : No Data.	Evaporation Rate: No Data.
Odor: None - Mild	<u>Vapor Pressure</u> : No Data.	Specific Gravity: 1.35
Boiling Point: No Data.ºC/No Data.ºF	Solubility in Water: Complete	<u>pH (concentrate</u>): > 13

SECTION 10 – STABILITY AND REACTIVITY

<u>Chemical Stability</u>: Stable at normal temperatures and storage conditions.

Hazardous Polymerization: Does not occur

Incompatibilities: strong acids, materials not resistant to strong alkalis, active metals (zinc, aluminum, magnesium, etc.).

Reactive Conditions to avoid: Acidic materials, materials not reistant to strong alkalis Strong oxidizers and metals..

Decomposition Produets: Contact with metals may generate Hydrogen, which can be explosive.

SECTION 11 – TOXICOLOGICAL INFORMATION

<u> Hazardous Ingredients</u>	<u>CAS #</u>	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Sodium Hydroxide	1310-73-2	No Data.	40 MG/KG	189 PPM (Rat)

SECTION 12 – ECOLOGICAL INFORMATION

Hazardons lugredients	Aquatic Toxicity Data
Sodium Hydroxide	This material is expected to be toxic to aquatic life.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in accordance with local, state and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

	T	Frm		
<u>Purview</u>	Proper Shipping Name	<u>UN Number</u>	Packing Group	Hazard Class
DOT (Land)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (CONTAINS SODIUM HYROXIDE)	UN3266	Ĩ	8
IMO (Water)	No Data.	No Data.	No Data.	No Data.
ICAO (Air)	No Data.	No Data.	No Data.	No Data.

SECTION 15 - REGULATORY INFORMATION

WIIMIS Classification: (Workplace Hazardous Material Information System)	Class E - Corrosive Material.
SARA Title III: (Superfund Amendments & Reauthorization Act)	No Data.
OSHA: (Occupational Safety & Health Administration)	No Data.
TSCA: (Toxic Substance Control Act)	No Data.
VOC: (volatile Organic Compounds)	No VOCs.
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	No Data.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	No Data.
CERCLA: (Comprehensive Response Compensation & Liability Act)	No Data.
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	No Data.
SECTION 16 - OTHER INFORMAT	ION

No Data.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herin.