SAFETY DATA SHEET



Sid Harvey Parts 4291-01, 4291-05, & 4291-08

SDS #Z0241

	1. Product and Company lo	dentification	
Product identifier	NU-BRITE (4291-01, 4291-05, 4291-08,	4891-08)	
Other means of identification	Not available		
Recommended use	Coil Cleaner / Degreaser		
Recommended restrictions	None known.		
Manufacturer information	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CH	EMTREC)	
Supplier	See above.		
	2. Hazards Identific	ation	
Physical hazards	Corrosive to metals	Category 1	
Health hazards	Skin corrosion/irritation	Category 1	
	Serious eye damage/eye irritation	Category 1	
Environmental hazards	Not classified.		
WHMIS 2015 defined hazards	Not classified		
Label elements			
Signal word	Danger		
Hazard statement	May be corrosive to metals. Causes severe skin burns and eye dama	age.	
Precautionary statement			
Prevention	Keep only in original packaging. Do not breathe mist or vapor. Wash tho clothing/eye protection/face protection.	oughly after handling. Wear protective gloves/protective	
Response	Absorb spillage to prevent material-damage. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. 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. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label).		
Storage	Store in a corrosion resistant container with a resistant inner liner. Store locked up.		
Disposal	Dispose of contents/container in accorda	nce with local/regional/national/international regulations	
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known		
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known		
Hazard(s) not otherwise classified (HNOC)	None known.		
Supplemental information	Not applicable.		
	3. Composition/Information	an Ingradianta	

Chemical name	Common name and synonyms	CAS number	%
Sodium hydroxide		1310-73-2	15-40
Alkyl polyglycoside		110615-47-9	1-5

	4. First Aid Measures
Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Specific treatment (see information on this label). Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
Eye contact	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/doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Use of an impervious apron is recommended. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.
	5. Fire Fighting Measures
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
	6. Accidental Release Measures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water
	. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
	Never return spills to original containers for re-use.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.
	7. Handling and Storage
Precautions for safe handling	Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not get in eyes, on skin or on clothing. Use good industrial hygiene practices in handling this material. Keep container tightly closed. Avoid breathing vapors or mists of this product.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in a corrosion resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls/Personal Protection

Callaua. Alberta OLLS (OU	cupational Health & Safety Code, Schedule	1 Table 2)
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
Safety Regulation 296/97,	as amended)	hemical Substances, Occupational Health and
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
	Reg. 217/2006, The Workplace Safety And H	•
Components Sodium hydroxide (CAS	Type Ceiling	2 mg/m3
1310-73-2)		
	ontrol of Exposure to Biological or Chemica	- ,
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
Canada. Quebec OELs. (M Components	linistry of Labor - Regulation Respecting the Type	e Quality of the Work Environment) Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
Canada. Saskatchewan Ol Components	ELs (Occupational Health and Safety Regula Type	ations, 1996, Table 21) Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
,		
	s for Air Contaminants (29 CFR 1910.1000)	
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3
US. ACGIH Threshold Lim		Value
US. ACGIH Threshold Lim Components	Туре	Value
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2)	Type Ceiling	Value 2 mg/m3
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS	Type Ceiling	
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide	Type Ceiling to Chemical Hazards	2 mg/m3
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2)	Type Ceiling to Chemical Hazards Type	2 mg/m3 Value 2 mg/m3
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the	2 mg/m3 Value 2 mg/m3
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) blogical limit values	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If application or other engineering controls to maintain a	2 mg/m3 Value 2 mg/m3 ingredient(s).
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) ological limit values posure guidelines	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If application or other engineering controls to maintain a	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilatior irborne levels below recommended exposure limits. If
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) ological limit values posure guidelines	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If applica or other engineering controls to maintain a exposure limits have not been established	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilatior irborne levels below recommended exposure limits. If
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) ological limit values posure guidelines opropriate engineering ntrols	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If applica or other engineering controls to maintain a exposure limits have not been established s, such as personal protective equipment	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilatior irborne levels below recommended exposure limits. If
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) blogical limit values posure guidelines popropriate engineering ntrols	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If applica or other engineering controls to maintain a exposure limits have not been established s, such as personal protective equipment	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilatior irborne levels below recommended exposure limits. If , maintain airborne levels to an acceptable level.
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) ological limit values posure guidelines opropriate engineering ntrols dividual protection measures Eye/face protection Skin protection	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If applica or other engineering controls to maintain a exposure limits have not been established. s, such as personal protective equipment Wear chemical goggles. Rubber gloves. Confirm with a reputable section 3 and a confirm a	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilatior irborne levels below recommended exposure limits. If , maintain airborne levels to an acceptable level.
US. ACGIH Threshold Lim Components Sodium hydroxide (CAS 1310-73-2) US. NIOSH: Pocket Guide Components Sodium hydroxide (CAS 1310-73-2) ological limit values posure guidelines opropriate engineering ntrols dividual protection measures Eye/face protection Skin protection Hand protection	Type Ceiling to Chemical Hazards Type Ceiling No biological exposure limits noted for the Chemicals listed in section 3 that are not li ACGIH. Good general ventilation (typically 10 air cl should be matched to conditions. If applica or other engineering controls to maintain a exposure limits have not been established. s, such as personal protective equipment Wear chemical goggles. Rubber gloves. Confirm with a reputable s Wear appropriate chemical resistant clothir recommended. Avoid breathing mists or vapors. Where exposure guideline levels may be e Respirator should be selected by and used	2 mg/m3 Value 2 mg/m3 ingredient(s). sted here do not have established limit values for hanges per hour) should be used. Ventilation rates able, use process enclosures, local exhaust ventilation irborne levels below recommended exposure limits. If , maintain airborne levels to an acceptable level. supplier first. ng. As required by employer code. Rubber apron exceeded, use an approved NIOSH respirator. d under the direction of a trained health and safety in OSHA's respirator standard (29 CFR 1910.134),

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.

	9. Physical and Chemical Properties
Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	
Odor	Characteristic, Mild
Odor threshold	Not available.
pH	12.7 (1%) 14 (Concentrate)
Melting point/freezing point	32 °F (0 °C)
Initial boiling point and boiling range	212 °F (100 °C)
Pour point	Not available.
Specific gravity	1.24
Partition coefficient (n-octanol/water)	Not available
Flash point	None to boiling
Evaporation rate	Equal to water
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available.
Solubility(ies)	Complete
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	Water thin
Other information	
Bulk density	10.36 lb/gal
VOC (Weight %)	None
	10. Stability and Reactivity
Reactivity	Reacts violently with acids. This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Hazardous vapours may be produced when mixed with
	chlorinated detergents or sanitizers.
Incompatible materials	Oxidizing agents. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
	11. Toxicological Information
	Eye, Skin contact, Inhalation, Ingestion.

9. Physical and Chemical Properties

Ingestion

Causes digestive tract burns.

Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.		
Skin contact	Causes severe skin burns.		
Eye contact	Causes serious eye damage.		
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.		
Information on toxicological effe	cts		
Acute toxicity			
Components	Species	Test Results	
Alkyl polyglycoside (CAS 110615-4	17-9)		
Acute			
Dermal			
LD50	Rabbit	> 2000 mg/kg	
Inhalation			
LC50	Not available		
Oral			
LD50	Rat	> 5000 mg/kg	
Sodium hydroxide (CAS 1310-73-2	2)		
Acute			
Dermal	Data		
LD50	Rabbit	1350 mg/kg	
Inhalation LC50	Not available		
	Not available		
Oral LD50	Not available		
Skin corrosion/irritation	Causes severe skin burns and eye damage.		
Exposure minutes	Not available.		
Erythema value	Not available.		
Oedema value	Not available.		
Serious eye damage/eye irritation	Causes serious eye damage.		
Corneal opacity value	Not available.		
Iris lesion value	Not available.		
Conjunctival reddening	Not available.		
value			
Conjunctival oedema value	Not available.		
Recover days	Not available.		
Respiratory or skin sensitization			
Canada - Alberta OELs: Irrita			
Sodium hydroxide (CAS 1			
Respiratory sensitization	Not available.		
Skin sensitization	This product is not expected to cause skin sensi	tization.	
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.		
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.		
US. OSHA Specifically Regu Not listed.	lated Substances (29 CFR 1910.1001-1050)		
Reproductive toxicity	Non-hazardous by WHMIS/OSHA criteria.		
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.		
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	Not available.		
Chronic effects	Prolonged inhalation may be harmful. Non-haza	rdous by WHMIS/OSHA criteria.	

		12. Ecological Information	
Ecotoxicity	Components of this product have been identified as having potential environmental concerns. See below		
Ecotoxicological data			
Components		Species	Test Results
Sodium hydroxide (CAS 1310-73	-2)		
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)) 125 mg/L, 96 hours
Persistence and degradability	No data i	s available on the degradability of this product.	
Bioaccumulative potential	No data a	available.	
Mobility in soil	No data a	available.	
Mobility in general	Not availa	able.	
Other adverse effects		adverse environmental effects (e.g. ozone dep endocrine disruption, global warming potential	
		13. Disposal Considerations	
Disposal instructions	and its co sewers/w	nd reclaim or dispose in sealed containers at lic ontainer must be disposed of as hazardous was rater supplies. Do not contaminate ponds, wate . Dispose of contents/container in accordance ns.	ste. Do not allow this material to drain into rways or ditches with chemical or used
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The wast disposal	e code should be assigned in discussion betwe company.	een the user, the producer and the waste
Waste from residues / unused products	product re	of in accordance with local regulations. Empty of esidues. This material and its container must be instructions).	
Contaminated packaging		ntainers should be taken to an approved waste ptied containers may retain product residue, fo	
		14. Transport Information	
Transport of Dangerous Goods (TDG) Proof of Classification		ance with Part 2.2.1 (SOR/2014-152) of the Trans, we certify that the classification of this prod	
U.S. Department of Transporta	tion (DOT)		
Basic shipping requiremer	nts:		
UN number	UN3266		
Proper shipping name		liquid, basic, inorganic, n.o.s.	
Technical name	Sodium h	ydroxide	
Hazard class	8		
Packing group Special provisions	 386 B2	IR2 T11 TD2 TD27	
Special provisions Packaging exceptions	386, БZ, 1 154	IB2, T11, TP2, TP27	
Packaging exceptions Packaging non bulk	202		
Packaging bulk	242		
Transportation of Dangorous G		(Comparing)	

Transportation of Dangerous Goods (TDG - Canada) Basic shipping requirements:

Basic shipping requirements	S:
UN number	UN3266
Proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Technical name	SODIUM HYDROXIDE
Hazard class	8
Packing group	II
Special provisions	16
Packaging exceptions	<1L - Limited Quantity
IATA/ICAO (Air)	
Basic shipping requirements	S:
UN number	UN3266
Proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Technical name	Sodium hydroxide
Hazard class	8
Packing group	ll

IMDG (Marine Transport)	
Basic shipping requirement	ts:
UN number	UN3266
Proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Technical name	Sodium hydroxide
Hazard class Packing group	8 II
	11
DOT	
CORROSIVE 8	
IATA; IMDG; TDG	
	15. Regulatory Information
Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (SOR/2015-17) and the SDS contains all the information required by the HPR.
Export Control List (CEPA 1	1999, Schedule 3)
Not listed.	
Greenhouse Gases	
Not listed.	
Precursor Control Regulation	JIIS
Not regulated.	Nationalizable
WHMIS 2015 Exemptions	
US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export	Notification (40 CFR 707, Subpt. D)
Not regulated. CERCLA Hazardous Substa	ance List (40 CFR 302.4)
Sodium hydroxide (CAS	
US. OSHA Specifically Reg	ulated Substances (29 CFR 1910.1001-1050)
Not listed.	
Superfund Amendments and Re	eauthorization Act of 1986 (SARA)
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting) Not regulated.	
Other federal regulations	
-	n 112 Hazardous Air Pollutants (HAPs) List
Not regulated.	

Not regulated.	on 112(r) Accidental Release I	Tevention (40 CFR 08.130)
Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)	Hazardous substance	
S state regulations		
US - California Hazardous	Substances (Director's): List	ed substance
Sodium hydroxide (CAS US - Illinois Chemical Safe		Listed.
Sodium hydroxide (CAS US - Louisiana Spill Repor	,	
Sodium hydroxide (CAS US - Minnesota Haz Subs:	,	Listed.
Sodium hydroxide (CAS US - New Jersey RTK - Su	S 1310-73-2) bstances: Listed substance	Listed.
Sodium hydroxide (CAS US - Texas Effects Screen	S 1310-73-2) ing Levels: Listed substance	
Sodium hydroxide (CAS US. Massachusetts RTK -	,	Listed.
Sodium hydroxide (CAS US. New Jersey Worker ar	S 1310-73-2) I <mark>d Community Right-to-Know</mark>	Act
Not regulated. US. Pennsylvania Worker	and Community Right-to-Kno	w Law
Sodium hydroxide (CAS US. Rhode Island RTK	S 1310-73-2)	
Sodium hydroxide (CAS	S 1310-73-2)	
US. California Proposition	65	
	Water and Toxic Enforcement	Act of 1986 (Proposition 65): This material is not known to contain ductive toxins.

Inventory status

Country(s) or region	Inventory name On inv	entory (yes/no)*	
Canada	Domestic Substances List (DSL)	Yes	
Canada	Non-Domestic Substances List (NDSL)	No	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes	
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)			

		16. Other Information	
LEGENI	D	HEALTH / 3	
Severe	4		
Serious Moderate	3	PHYSICAL HAZARD 0 3 0	
Slight Minimal	- 1 0	PERSONAL X PROTECTION X	
Disclaimer		The information in the sheet was written based on the best knowledge and expe	

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

31-October-2016
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31-October-2016
Nu-Calgon Technical Service Phone: (314) 469-7000
For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.



Safety Data Sheet

Issue Date:	22-Oct-2013	Revision Date:	28-Oct-2013		Vers	sion 1
		1. IDENT	IFICATION			
Product Iden Product Nam		Nu-Brite				
<u>Other means</u> Part Number	of identification	4291-01, 4291-05, 4291-	-08.			
Recommend	led use of the chemical	l and restrictions on use	_			
Recommend	led Use	Coil cleaner/degreaser.	For professional use only.			
Details of the Supplier Add Nu-Calgon 2008 Altom C St. Louis, MO www.nucalgo	Court 0 63146	data sheet				
Company Ph	<u>Telephone Number</u> none Number Telephone (24 hr)	(314) 469-7000 (800) 554-5499 Chemtrec 1-800-424-93(00			
		2. HAZARDS I	DENTIFICATION			
Appearance	Clear blue liquid	Physical S	State Liquid		Odor	Bland
Classification	<u>n_</u>					
Skin corrosior	n/irritation			Category 1	Sub-category B	
Serious eye d	damage/eye irritation			Category 1		
Signal Word Danger Hazard State Causes sever		ımage				

<u>Precautionary Statements - Prevention</u> 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

Precautionary Statements - Response

Immediately call a poison center or doctor/physician 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 Immediately call a poison center or doctor/physician

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown Acute Toxicity

4.3% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sodium hydroxide	1310-73-2	15-25

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	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.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Inhalation	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.
Ingestion	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms Causes severe skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to Physician 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 Not determined.

Specific Hazards Arising from the Chemical

Material is corrosive.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.	
Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.	
Methods and material for containment and cleaning up		
Methods for Containment	Prevent further leakage or spillage if safe to do so.	

Methods for Clean-Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Use personal
	protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not
	breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin
	thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep out of the reach of children.
Incompatible Materials	Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear approved safety goggles where a splash hazard exists.

Skin and Body Protection Wear suitable protective clothing.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations Wash contaminated clothing 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 Color	Liquid Clear blue liquid Clear blue	Odor Odor Threshold	Bland Not determined
<u>Property</u> pH	Values	Remarks • Method	
рп	12.7 (1% in water); 14.0 (concentrate)		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	100 °C / 212 °F	IBP	
Flash Point	None to boiling	Tag Closed Cup	
Evaporation Rate	Equal to water		
Flammability (Solid, Gas)	Liquid-not applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	1.24		
Water Solubility	Soluble in water		
Solubility in other solvents Partition Coefficient	Not determined Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Water thin (<5 cps)		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		
VOC Content (%)	None		
Density	10.36 lb/gal		

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children. Do not mix with other chemicals.

Incompatible Materials

Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
Eye Contact	Causes severe eye damage.
Skin Contact	Causes severe skin burns.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Sodium hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity Not determined	
Unknown Acute Toxicity	4.3% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium hydroxide 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static		

Persistence/Degradability

Biodegradable.

Bioaccumulation

Not determined.

<u>Mobility</u>

Not determined

Other Adverse Effects

Not determined

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	Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

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

	14. TRANSPORT INFORMATION
<u>Note</u>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
	When shipped domestically by ground in containers of 1 liter or less this material may be reclassified as "Limited Quantity" in accordance with DOT regulation 49CFR173.154.
	Please see 49CFR172.500 for appropriate transportation placarding and 49CFR172.400 for appropriate transportation labeling.
<u>DOT</u> UN/ID No Proper Shipping Name Hazard Class Packing Group	UN3266 Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide) 8 II
<u>IATA</u> UN/ID No Proper Shipping Name Hazard Class Packing Group	UN3266 Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide) 8 II
IMDG UN/ID No Proper Shipping Name Hazard Class Packing Group	UN3266 Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide) 8 II

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

<u>CERCLA</u>

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		RQ 1000 lb final RQ
1310-73-2			RQ 454 kg final RQ

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

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)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2 (15-25)	1000 lb			Х

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			

16. OTHER INFORMATION

<u>NFPA</u> HMIS	Health Hazards 3 Health Hazards 3	Flammability 0 Flammability 0	Instability 0 Physical Hazards 0	Special Hazards Cor Personal Protection X
Issue Date: Revision Date: Revision Note:	22-Oct-2 28-Oct-2 New for	2013		

Disclaimer

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

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CECTION 4

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION						
Company Name	Phone Number			<u>CHEMTREC</u>		
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	1/25/07	
Product Name	Product Number	Product Use			EPA Registration #	
Nu-Brite	4291	Coil Cleaner/Deg	reaser		N/A	

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	<u>% By Wt.</u>	CAS Number	TLV	PEL
Sodium Hydroxide (Caustic Soda)	20-30%	1310-73-2	2mg/M3 (TWA/STEL)	2 mg/M3
Nonionic Surfactant	1-10%	Proprietary	None Established	None Established

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: CORROSIVE LIQUID. Contains Sodium Hydroxide. Do not get in eyes, on skin or elothing. Avoid breathing spray or mist. Use only with adequate personal protection equipment.

Potential IIcalth Effects

Eves: Prolonged contact with eyes will cause severe irritation, possibly burns and permanent damage.

Skin: Contact with skin can cause severe irritation with pain, possibly produce severe chemical burns and destroy tissues; irritation may be delayed.

Ingestion: Harmful or fatal if swallowed - causes severe burns of the mouth, throat and stomach if ingested.

Inhalation: Inhalation of generated mists or spray may cause respiratory irritation or chemical burns of mouth, throat, and stomach.

Chronic Exposure: Chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis.

Carcinogenicity: None

Medical Conditions Aggravated be Exposure: An existing dermatitis and respiratory illnesses.

SECTION 4 – FIRST AID MEASURES

Eyes: Flush eyes with water for at least 30 minutes and call a physician immediately. Speed of action is essential.

Skin: Remove contaminated clothing. Wash with large amounts of soap and water. If skin still feels slippery or if irritation persists, continue washing. Consult a physician in the case of any prolonged irritation.

Ingestion: Do not induce vomiting. Immediately give large quantities of water or (preferably) milk and call a physician. Speed of action is essential.

Inhalation: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: None to Boiling °F

Autoignition Temp: N/A°C/N/A°F

Hazardous Products of Combustion: Burning may produce oxides of carbon and other substances.

Flammable Limits in Air: N/A

Extinguishing Media: This product is not combustible. Water spray, foam, CO2, or dry chemicals may be used in areas where this product is stored.

Fire and Explosion Hazards: Nonc

Special Firefighting Procedures: Do not enter confined fire spaces without protective elothing and a self-contained air supply.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill or Leak: CORROSIVE LIQUID. Before attempting clean up, refer to personal protection information. Do not touch or walk through spilled material. Stop leak if you can without risk. Dike ahead of large spills to prevent run-off. Mop, pump or take up with sand or other inert absorbent and reelaim into containers for reuse, recycle or proper disposal.

SECTION 7 – HANDLING AND STORAGE

Ilandling Procedures and Equipment: CORROSIVE MATERIAL. Avoid contact with corrosion sensitive metals, leather and wood. Do not get in eyes, on skin or clothing. Sprays and generated mists can be dangerous. Use only according to dilution instructions and with adequate protective clothing.

Storage Requirements: CORROSIVE MATERIAL. Keep container closed when not in use. DOT Class: Corrosive liquid, basic, inorganic, n.o.s. (contains sodium hydroxide), 8, UN3266, PG-II. KEEP OUT OF REACH OF CHILDREN. Store away from acids and oxidizing materials.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Respiratory Protection</u>: Specific use conditions (spraying/confined spaces) where regulatory limits for NaOH are exceeded may require local exhaust ventilation to prevent release of mist &/or vapors into work environment. If ventilation in not adequate, use NIOSH/MSHA approved respirator with alkaline mist/gas cartridge & full face piece.

Eve Protection: Close fitting safety glasses/goggles/ face shield depending upon conditions of use.

Protective Clothing: Impervious protective elothing appropriate to minimize contact (ie: rubber boots, apron, faeeshield) especially where sprayback/misting conditions exist. Rubber protective gloves.

Exposurc Guidelines: NaOH TLV = 2mg/M3. Eye wash station and safety shower in handling area.

Specific Engineering Controls (such as ventilation, enclosed process): Insure adequate ventilation to control NaOH airborne concentration below TLV of 2Mg/M3. Eye wash station and safety shower in handling area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid	Freezing Point: ~0°C/~32~0°F	<u>% Volatile by Weight</u> : ~76%
Color: Blue	<u>Vapor Density [air =1]</u> : Not Determined	Evaporation Rate: (vs. H2O): About the same.
Odor: No distinct odor	Vapor Pressure: Not Determined	Specific Gravity: (H2O=1.0): 1.252 (+/- 0.005)
Boiling Point: 100°C/212°F	Solubility in Water: Complete	pH (concentrate): 10% pH=13.3 (+/- 0.5)

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable

Hazardous Polymerization: None

Incompatibilities: Strong acids/oxidizers. Do not mix with chlorinated detergents (bleach).

Reactive Conditions to avoid: Do not mix with chlorinated detergents (bleach) or any other chemicals.

Decomposition Products: Burning may produce oxides of carbon and other substances.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Hazardous Ingredients</u>	<u>CAS #</u>	EINECS#	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Sodium Hydroxidc	1310-73-2	No Data.	1350 mg/kg (Oral ; Rat)	358 mg/L (Fathead Minnow)
Nonionic Surfactant	Proprietary	No Data.	>5.0 g / kg (Oral ; Rat)	Not Determined

SECTION 12 - ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data	
Sodium Hydroxide	LC50 (96 hr.) (fathead minnow) : 358 mg/L	
Nonionic Surfactant	Not Determined	

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in an approved waste facility according to Federal, State and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

Purview	Proper Shipping Name	<u>UN Number</u>	Packing Group	Hazard Class
DOT (Land)	Corrosive liquid, basic, inorganic, n.o.s. (contains sodium hydroxide)	UN3266	11	8
IMO (Water)	No Data.	No Data.	No Data.	No Data.
ICAO (Air)	No Data.	No Data.	No Data.	No Data.

SECTION 15 – REGULATIORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	Class E - Corrosive Material		
SARA Title III: (Superfund Amendments & Reauthorization Act)	Contains no Section 313 listed substances subject to reporting requirements.		
OSHA: (Occupational Safety & Health Administration)	OHSA Hazardous - Corrosive Liquid. Acute & Chronic Hazard.		
TSCA: (Toxie Substance Control Act)	All ingredients are TSCA registered.		
VOC: (volatile Organic Compounds)	Less than 1%		
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)	Not all ingredients within this product are on the DSL and/or NDSL.		
CERCLA: (Comprehensive Response Compensation & Liability Act)	RQ = >5,000 lbs (NaOH)		
TDL: (Canadian Ingredient Disclosure List)	Sodium hydroxide is listed on the IDL.		
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health = 3 Flammability = 0 Reactivity = 1		
SECTION 16 – OTHER INFORMATION			

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.