



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>NU-BRITE (4291-01, 4291-05, 4291-08, 4891-08)</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Coil Cleaner
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May be corrosive to metals. Causes severe skin burns and eye damage.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep only in original packaging. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	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).
<b>Storage</b>	Store in a corrosion resistant container with a resistant inner liner. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)</b>	None known
<b>WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)</b>	None known
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	Not applicable.

## 3. Composition/Information on Ingredients

### Mixture

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Sodium hydroxide		1310-73-2	15-40*

**Composition comments**

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.  
\*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

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**4. First Aid Measures**

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<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
<b>Most important symptoms/effects, acute and delayed</b>	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.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General information</b>	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.

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**5. Fire Fighting Measures**

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<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Firefighters should wear a self-contained breathing apparatus.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.

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**6. Accidental Release Measures**

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<b>Personal precautions, protective equipment and emergency procedures</b>	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.
<b>Methods and materials for containment and cleaning up</b>	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.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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**7. Handling and Storage**

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<b>Precautions for safe handling</b>	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.
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**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).

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## 8. Exposure Controls/Personal Protection

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**Occupational exposure limits**

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear chemical goggles.

**Skin protection**

**Hand protection**

Rubber gloves. Confirm with a reputable supplier first.

**Other**

Wear appropriate chemical resistant clothing. As required by employer code. Rubber apron recommended.

<b>Respiratory protection</b>	Avoid breathing mists or vapors. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	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.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Blue
<b>Odor</b>	Characteristic, Mild
<b>Odor threshold</b>	Not available.
<b>pH</b>	12.7 (1%) 14 (Concentrate)
<b>Melting point/freezing point</b>	32 °F (0 °C)
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	1.24
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	None to boiling
<b>Evaporation rate</b>	Equal to water
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available
<b>Flammability limit - upper (%)</b>	Not available
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Complete
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Water thin
<b>Other information</b>	
<b>Bulk density</b>	10.36 lb/gal
<b>VOC (Weight %)</b>	None

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## 10. Stability and Reactivity

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<b>Reactivity</b>	Reacts violently with acids. This product may react with oxidizing agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals. Hazardous vapours may be produced when mixed with chlorinated detergents or sanitizers.
<b>Incompatible materials</b>	Oxidizing agents. Acids.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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## 11. Toxicological Information

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<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.	
<b>Information on likely routes of exposure</b>		
<b>Ingestion</b>	Causes digestive tract burns.	
<b>Inhalation</b>	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.	
<b>Skin contact</b>	Causes severe skin burns.	
<b>Eye contact</b>	Causes serious eye damage.	
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	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.	
<b>Information on toxicological effects</b>		
<b>Acute toxicity</b>		
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Sodium hydroxide (CAS 1310-73-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rabbit	325 mg/kg, ECHA
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Corneal opacity value</b>	Not available.	
<b>Iris lesion value</b>	Not available.	
<b>Conjunctival reddening value</b>	Not available.	
<b>Conjunctival oedema value</b>	Not available.	
<b>Recover days</b>	Not available.	
<b>Respiratory or skin sensitization</b>		
<b>Canada - Alberta OELs: Irritant</b>		
Sodium hydroxide (CAS 1310-73-2)	Irritant	
<b>Respiratory sensitization</b>	Not available.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.	
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.	
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not listed.		
<b>Reproductive toxicity</b>	Non-hazardous by WHMIS/OSHA criteria.	
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not available.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Non-hazardous by WHMIS/OSHA criteria.	

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## 12. Ecological Information

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<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns. See below
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**Ecotoxicological data****Components**

Sodium hydroxide (CAS 1310-73-2)

**Aquatic**

Species	Test Results
Crustacea	EC50 Water flea ( <i>Ceriodaphnia dubia</i> ) 34.59 - 47.13 mg/L, 48 hours
Fish	LC50 Western mosquitofish ( <i>Gambusia affinis</i> ) 125 mg/L, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.**Bioaccumulative potential** No data available.**Mobility in soil** No data available.**Mobility in general** Not available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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**13. Disposal Considerations**

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<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

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**14. Transport Information**

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**Transport of Dangerous Goods (TDG) Proof of Classification** Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.**U.S. Department of Transportation (DOT)****Basic shipping requirements:**

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	Corrosive liquid, basic, inorganic, n.o.s.
<b>Technical name</b>	Sodium hydroxide
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	386, B2, IB2, T11, TP2, TP27
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

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

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
<b>Technical name</b>	SODIUM HYDROXIDE
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	16
<b>Packaging exceptions</b>	<1L - Limited Quantity

**IATA/ICAO (Air)****Basic shipping requirements:**

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	Corrosive liquid, basic, inorganic, n.o.s.
<b>Technical name</b>	Sodium hydroxide
<b>Hazard class</b>	8
<b>Packing group</b>	II

**IMDG (Marine Transport)****Basic shipping requirements:**

<b>UN number</b>	UN3266
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<b>Proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
<b>Technical name</b>	Sodium hydroxide
<b>Hazard class</b>	8
<b>Packing group</b>	II

DOT



IATA; IMDG; TDG




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## 15. Regulatory Information

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**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 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS 2015 Exemptions** Not applicable

**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)**

All required substances have been notified to EPA as active.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Sodium hydroxide (CAS 1310-73-2) Listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization 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**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

US state regulations

**US - California Hazardous Substances (Director's): Listed substance**

Sodium hydroxide (CAS 1310-73-2) Listed.

**US - Illinois Chemical Safety Act: Listed substance**

Sodium hydroxide (CAS 1310-73-2)

**US - Louisiana Spill Reporting: Listed substance**

Sodium hydroxide (CAS 1310-73-2) Listed.

**US - Minnesota Haz Subs: Listed substance**

Sodium hydroxide (CAS 1310-73-2) Listed.

**US - New Jersey RTK - Substances: Listed substance**

Sodium hydroxide (CAS 1310-73-2)

**US - Texas Effects Screening Levels: Listed substance**

Sodium hydroxide (CAS 1310-73-2) Listed.

**US. Massachusetts RTK - Substance List**

Sodium hydroxide (CAS 1310-73-2)

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Sodium hydroxide (CAS 1310-73-2)

**US. Rhode Island RTK**

Sodium hydroxide (CAS 1310-73-2)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Inventory status

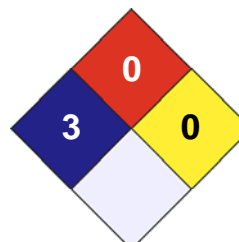
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer

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.

Issue date

04-July-2018

Version #

02

Effective date

04-July-2018

Prepared by

Nu-Calgon Technical Service Phone: (314) 469-7000

Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.