

1. Product and Company Identification

Product identifier	Eco-Lyme Descaler (4167-01, 4167-05, 4167-08)
Other means of identification	Not available
Recommended use	Descaler
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 (CHEMTREC)
Supplier	See above.

2. Hazards Identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	
Label elements		



Signal word	Danger	
Hazard statement	May be corrosive to metals. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause respiratory irritation.	
Precautionary statement		
Prevention	Keep only in original packaging. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe the mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.	
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. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
Storage	Store in a corrosion resistant container with a resistant inner liner. Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
Disposal	Dispose of contents/container in accordance 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	None.	

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Alkane sulfonic acid		75-75-2	15-20

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The concentration ranges are provided due to batch-to-batch variability.

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. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse. Specific treatment (see information on this label).
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. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
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 sulfur. Oxides of nitrogen. Oxides of carbon.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. 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	Should not be released into the environment. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. 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.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent further leakage or spillage if safe to do so. Do not contaminate water. 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	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in a cool, dry place out of direct sunlight. Store in a corrosion resistant container with a resistant inner liner. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
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 safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Impervious gloves. Confirm with reputable supplier first.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code.
Respiratory protection	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).
Thermal hazards	Not applicable.
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. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid.
Color	Colorless to Yellow
Odor	Slight Sulfurous
Odor threshold	Not available.
pH	< 1
Melting point/freezing point	-76 °F (-60 °C)
Initial boiling point and boiling range	> 212 °F (> 100 °C)
Pour point	Not available.
Specific gravity	1.065
Partition coefficient (n-octanol/water)	-4.98
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
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	3.3

Relative density	Not available.
Solubility(ies)	Complete
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Molecular weight	96.1
Oxidizing properties	Not oxidizing.

10. Stability and Reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents. May be corrosive to metals. This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Bases. Strong oxidizing agents. Reducing agents. Metals.
Hazardous decomposition products	May include and are not limited to: Oxides of nitrogen. Oxides of sulfur. Oxides of carbon.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.	
Information on likely routes of exposure		
Ingestion	Causes digestive tract burns. May cause stomach distress, nausea or vomiting.	
Inhalation	May cause irritation to the respiratory system.	
Skin contact	Harmful in contact with skin. 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. May cause respiratory irritation.	
Information on toxicological effects		
Acute toxicity	In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. May cause respiratory irritation. Harmful in contact with skin.	
Components	Species	Test Results
Alkane sulfonic acid (CAS 75-75-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	200 - 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	1158 mg/kg, ECHA 648.7 mg/kg, ECHA
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 value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity See below.

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

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not available.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

12. Ecological Information

Ecotoxicity Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. See below

Ecotoxicological data

Components	Species	Test Results
Alkane sulfonic acid (CAS 75-75-2)		
Crustacea	EC50 Daphnia	12 mg/L, 48 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.

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products 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).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

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:

UN number	UN3265
Proper shipping name	Corrosive liquid, acidic, organic, n.o.s.
Technical name	Alkane sulfonic acid
Hazard class	8
Packing group	II
Special provisions	148, B2, IB2, T11, TP2, TP27
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN3265
Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name Alkane sulfonic acid
Hazard class 8
Packing group II
Special provisions 16

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN3265
Proper shipping name Corrosive liquid, acidic, organic, n.o.s.
Technical name Alkane sulfonic acid
Hazard class 8
Packing group II

IMDG (Marine Transport)

Basic shipping requirements:

UN number UN3265
Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name Alkane sulfonic acid
Hazard class 8
Packing group II

DOT



IATA; IMDG; TDG



15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the HPR 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)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not 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 See below

US - New Jersey RTK - Substances: Listed substance

Alkane sulfonic acid (CAS 75-75-2)

US - Texas Effects Screening Levels: Listed substance

Alkane sulfonic acid (CAS 75-75-2) Listed.

US. Massachusetts RTK - Substance List

Not regulated.

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

Not regulated.

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

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

Inventory status

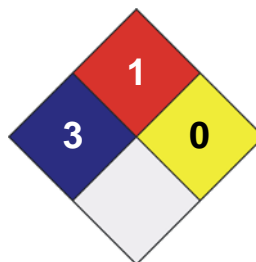
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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	1
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 29-March-2018

Version # 01

Effective date 29-March-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.