

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015) & OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012)
Issue date: 9/29/2011 Revision date: 5/15/2024 Version: 3.0

SECTION 1: Identification

1.1. Product identifier

Product name : Eco-Lyme Descaler (4167-01, 4167-05, 4167-08)

1.2. Recommended use and restrictions on use

Recommended use : Descaler

1.3. Supplier

Manufacturer

Nu-Calgon
2611 Schuetz Road
St. Louis, MO
63043
US
T 314-469-7000 / 800-554-5499
www.nucalgon.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA/US)

Corrosive to metals Category 1	May be corrosive to metals
Acute toxicity (oral) Category 4	Harmful if swallowed
Skin corrosion/irritation Category 1B	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation

2.2. GHS Label elements, including precautionary statements

GHS CA/US labeling

Hazard pictograms (GHS CA/US) :



Signal word (GHS CA/US) : Danger

Hazard statements (GHS CA/US) :
May be corrosive to metals
Harmful if swallowed
Causes severe skin burns and eye damage
May cause respiratory irritation

Precautionary statements (GHS CA/US) :
Keep only in original container.
Do not breathe vapors, mist.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection, face protection.
Call a POISON CENTER or doctor if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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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.
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.
Specific treatment (see supplemental first aid instruction on this label).
Absorb spillage to prevent material-damage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA/US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Methanesulfonic acid	CAS-No.: 75-75-2	15 - 20

Comments : The concentration ranges are provided due to batch-to-batch variability.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after 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.

First-aid measures after skin contact : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

First-aid measures after 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.

First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. If vomiting occurs have person lean forward. Never give anything by mouth to an unconscious person.

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible). Medical personnel should be made aware of substance(s) involved and take measures for self protection. Show this safety data sheet to the doctor in attendance. Avoid contact with skin and eyes. Keep out of the reach of children.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. May produce skin irritation, blistering, ulcers, and deep scarring.

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- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
- Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : Symptoms may be delayed. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

- Suitable extinguishing media : Water fog. Foam. Dry chemical powder. Carbon dioxide.

5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.3. Specific hazards arising from the hazardous product

- Fire hazard : During fire, gases hazardous to health may be formed. In case of fire or explosion do not breathe fumes.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : May include and are not limited to: oxides of carbon.

5.4. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Move containers from fire area if it can be done without personal risk.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. In the event of a significant spillage : Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

- For containment : Stop leaks if it can be done without personal risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Absorb spillage to prevent material-damage. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Clean contaminated surfaces with an excess of water.
- Other information : This material and its container must be disposed of in a safe way, and as per local legislation.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist. Do not taste or swallow. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Handle and open container with care.
- Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of reach of children. Keep only in original container. Store tightly closed in a dry, cool and well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Store away from incompatible materials (see Section 10 of the SDS). Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

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.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear appropriate chemical resistant gloves. Confirm with a reputable supplier first.

Eye protection:

Wear safety glasses with side shields (or goggles).

Skin and body protection:

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

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).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : No data available
Color : Colorless to Yellow
Odor : Slight sulfurous
Odor threshold : No data available
pH : < 1
Relative evaporation rate (butyl acetate=1) : No data available
Relative evaporation rate (ether=1) : No data available
Molecular mass : 96.1 g/mol
Melting point : -60 °C (-76 °F)
Freezing point : No data available
Boiling point : > 100 °C (> 212 °F)
Flash point : No data available

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: 3.3
Relative density	: 1.065
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: -4.98
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidising.
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	: Reacts violently with strong alkaline substances. This product may react with reducing agents. This product may react with strong oxidizing agents. May be corrosive to metals.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Keep away from heat and direct sunlight. Do not mix with other chemicals.
Incompatible materials	: Metals. Bases. Reducing agents. Strong oxidizing agents.
Hazardous decomposition products	: May include and are not limited to: oxides of carbon. Sulfur oxide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Methanesulfonic acid (75-75-2)	
LD50 oral rat	380 mg/kg (Source: NZ_CCID)
LD50 dermal rabbit	> 1000 mg/kg (Source: ECHA_API)
LC50 Inhalation - Rat [ppm]	330 ppm (Exposure time: 6 h Source: NLM_HSDB)
ATE CA (oral)	380 mg/kg body weight
ATE CA (Dermal)	1100 mg/kg body weight
ATE CA (Gases)	330 ppmV/4h

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.

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Methanesulfonic acid (75-75-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation	: Causes burns to the respiratory system.
Symptoms/effects after skin contact	: Causes severe skin burns. May produce skin irritation, blistering, ulcers, and deep scarring.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Symptoms/effects after ingestion	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: See below for route-specific details.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Eco-Lyme Descaler (4167-01, 4167-05, 4167-08)	
Partition coefficient n-octanol/water (Log Pow)	-4.98

Methanesulfonic acid (75-75-2)	
LC50 - Fish [1]	73 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: ECHA)
EC50 - Crustacea [1]	12 mg/l (Exposure time: 48 h - Species: Daphnia pulex)
EC50 72h - Algae [1]	12 – 24 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	7.2 – 20 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Pow)	-4.98

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of the material collected according to regulations.
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Sewage disposal recommendations : Disposal must be done according to official regulations.
 Product/Packaging disposal recommendations : 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, disposal or collection.

SECTION 14: Transport information

TDG	DOT	IMDG	IATA
14.1. UN number			
UN3265	3265	3265	3265
14.2. Proper Shipping Name			
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid)	Corrosive liquid, acidic, organic, n.o.s. (Methanesulfonic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid)	Corrosive liquid, acidic, organic, n.o.s. (Methanesulfonic acid)
Transport document description			
UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid), 8, II	UN3265 Corrosive liquid, acidic, organic, n.o.s. (Methanesulfonic acid), 8, II	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid), 8, II	UN 3265 Corrosive liquid, acidic, organic, n.o.s. (Methanesulfonic acid), 8, II
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

TDG
 UN-No. (TDG) : UN3265
 Excepted quantities (TDG) : E2
 Emergency Response Guide (ERG) Number : 153

DOT
 UN-No.(DOT) : UN3265

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DOT Special Provisions (49 CFR 172.102)	: 148 - Except for transportation by aircraft, when transported as a limited quantity or a consumer commodity, the maximum net capacity specified in §173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters",53 - Stow "separated from" alkaline compounds,58 - Stow "separated from" cyanides

IMDG

Special provision (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T11
Tank special provisions (IMDG)	: TP2, TP27
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Segregation (IMDG)	: SGG1, SG36, SG49
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L

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Special provision (IATA) : A3, A803
ERG code (IATA) : 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

All components of this product are present on DSL

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Other information : For an updated SDS, please contact the supplier or manufacturer listed on the first page of the document.

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

The information in the safety data 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.