



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Calclean Special HD (4143)
CAS #	Mixture
Product use	Heavy Duty Cleaner/Degreaser
Manufacturer	Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Emergency overview	WARNING EYE AND SKIN IRRITANT.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause severe irritation or chemical burns.
Skin	This product is non-corrosive based on test data. May cause irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	Components of this product have been identified as having potential environmental concerns.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium metasilicate	6834-92-0	3 - 7
Sodium tripolyphosphate	7758-29-4	3 - 7
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-	34398-01-1	1 - 5
Potassium hydroxide	1310-58-3	1 - 5
Sodium lauriminodipropionate	14960-06-6	1 - 5

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.

General advice

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

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Carbon dioxide. Water spray. Alcohol foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of sulphur. Oxides of phosphorus. Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling	WARNING EYE AND SKIN IRRITANT. Do not get in eyes, on skin or on clothing. Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-	ACGIH-TLV Not established OSHA-PEL Not established
Potassium hydroxide	ACGIH-TLV Ceiling: 2 mg/m3 OSHA-PEL Not established
Sodium lauriminodipropionate	ACGIH-TLV Not established OSHA-PEL Not established
Sodium metasilicate	ACGIH-TLV TWA: 10 mg/m3 OSHA-PEL Not established
Sodium tripolyphosphate	ACGIH-TLV Not established OSHA-PEL Not established

Engineering controls

General ventilation normally adequate.

Personal protective equipment

Eye / face protection

Wear safety glasses with side shields.

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection

As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Avoid breathing mists or vapors.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Liquid.
Color	Opal Green
Form	Liquid
Odor	Fresh.
Odor threshold	Not available
Physical state	Liquid
pH	13.5
Melting point	Not available
Freezing point	32.00 °F (0 °C)
Boiling point	212.00 °F (100 °C)
Pour point	Not available
Evaporation rate	Same as water
Flash point	None to boiling
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available

Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.13 ± 0.005
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
VOC (Weight %)	Not available
Viscosity	Not available
Percent volatile	81

10. Stability and Reactivity

Reactivity	Reacts violently with acids. This product may react with strong 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	Acids. Oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of sulphur. Oxides of phosphorus. Oxides of carbon.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-	Not available
Potassium hydroxide	Not available
Sodium lauriminodipropionate	Not available
Sodium metasilicate	Not available
Sodium tripolyphosphate	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-	1700 mg/kg rat
Potassium hydroxide	214 mg/kg rat
Sodium lauriminodipropionate	31300 mg/kg rat
Sodium metasilicate	1153 mg/kg rat
Sodium tripolyphosphate	3100 mg/kg rat

Effects of acute exposure

Eye	May cause severe irritation or chemical burns.
Skin	This product is non-corrosive based on test data. May cause irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Potassium hydroxide	1310-58-3	96 Hr LC50 Gambusia affinis: 80 mg/L [static]
Sodium metasilicate	6834-92-0	96 Hr LC50 Brachydanio rerio: 210 mg/L [semi-static]; 96 Hr LC50 Brachydanio rerio: 210 mg/L
Sodium tripolyphosphate	7758-29-4	48 Hr LC50 Leuciscus idus: 1650 mg/L

Ecotoxicity - Water Flea - Acute Toxicity Data

Sodium metasilicate	6834-92-0	96 Hr EC50 Daphnia magna: 216 mg/L
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Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Mobility in environmental media	Not available
Environmental effects	Not available
Aquatic toxicity	Not available
Partition coefficient	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Potassium hydroxide	1310-58-3	1 %
Sodium metasilicate	6834-92-0	1 %

WHMIS status Controlled

WHMIS classification Class D - Division 2B

WHMIS labeling



Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ
Sodium tripolyphosphate	7758-29-4	5000 Lb final RQ (listed under Sodium phosphate, tribasic); 2270 kg final RQ (listed under Sodium phosphate, tribasic)

U.S. - CWA (Clean Water Act) - Hazardous Substances

Potassium hydroxide	1310-58-3	Present
Sodium tripolyphosphate	7758-29-4	Present

CERCLA (Superfund) reportable quantity

Potassium hydroxide: 1000.0000
 Sodium tripolyphosphate: 5000.0000

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Hazardous substance

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Potassium hydroxide 1310-58-3 Present
 Sodium tripolyphosphate 7758-29-4 Present (listed under Sodium phosphate, tribasic)

U.S. - Louisiana - Reportable Quantity List for Pollutants

Potassium hydroxide 1310-58-3 1000 Lb final RQ; 454 kg final RQ
 Sodium tripolyphosphate 7758-29-4 5000 Lb final RQ (listed under Sodium phosphate, tribasic); 2270 kg final RQ (listed under Sodium phosphate, tribasic)

U.S. - Massachusetts - Right To Know List

Potassium hydroxide 1310-58-3 Present
 Sodium tripolyphosphate 7758-29-4 Present

U.S. - Minnesota - Hazardous Substance List

Potassium hydroxide 1310-58-3 Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Potassium hydroxide 1310-58-3 sn 1571

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Potassium hydroxide 1310-58-3 1000 Lb RQ (air); 100 lb RQ (land/water)
 Sodium tripolyphosphate 7758-29-4 5000 Lb RQ (air); 100 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List

Potassium hydroxide 1310-58-3 Environmental hazard
 Sodium tripolyphosphate 7758-29-4 Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Potassium hydroxide 1310-58-3 Toxic (caustic); Flammable (caustic)

Inventory name

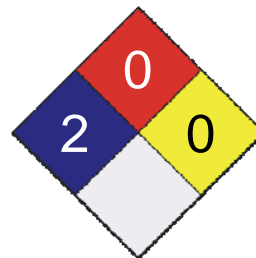
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	0
Physical Hazard	0
Personal Protection	X



Disclaimer

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.

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Prepared by Nu-Calgon Technical Service (314) 469-7000
Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.