SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	**Calclean Special HD (4143-01, 4143-06, 4143-08, 4823-08)**
Other means of identification	Not available
Recommended use	Heavy Duty Cleaner/Degreaser
Recommended restrictions	None known.
Manufacturer information	Nu-Calgon 2008 Altom Court St. Louis, MO 63146 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	Skin corrosion/irritation	Category 2
	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 skin irritation. Causes serious eye damage.
Precautionary statement	
Prevention	Keep only in original packaging. Wash thoroughly after handling. Wear protective gloves. Wear eye/face protection.
Response	IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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. Absorb spillage to prevent material-damage.
Storage	Store in a corrosion resistant container with a resistant inner liner.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
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 on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Sodium metasilicate		6834-92-0	3-7
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy-		34398-01-1	1-5

Chemical name	Common name and synonyms	CAS number	%
Potassium hydroxide		1310-58-3	1-5
Sodium lauriminodipropionate		14960-06-6	1-5
Sodium tripolyphosphate		7758-29-4	1-5

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

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.

4. First Aid Measures

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Skin contact IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

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 Rinse mouth. Do not induce vomiting. Get medical attention if symptoms occur. 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.

Most important symptoms/effects, acute and delayed Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. 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. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media Alcohol foam. Dry chemical. 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 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 sulfur. Oxides of phosphorus. 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 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. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.

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. Provide adequate ventilation. Wear appropriate personal protective equipment. 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.

Conditions for safe storage, including any incompatibilities

Store in corrosive 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. Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

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

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	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
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

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

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

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

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

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

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

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

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	TWA	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 or OSHA PEL.

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

Rubber gloves. Confirm with a reputable supplier first.

Other

Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection	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).
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	Liquid
Physical state	Liquid.
Form	Liquid
Color	Opal Green
Odor	Fresh
Odor threshold	Not available.
pH	13.5
Melting point/freezing point	32 °F (0 °C)
Initial boiling point and boiling range	212 °F (100 °C)
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available
Flash point	None to boiling
Evaporation rate	Same as water
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	Not available
Relative density	Not available.
Solubility(ies)	Complete
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	Reacts violently with acids. This product may react with strong oxidizing agents. Corrosive to aluminum.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts violently with strong acids. This product may react with oxidizing agents. 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 sulfur. Oxides of phosphorus. Oxides of carbon.

11. Toxicological Information

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. This product is non-corrosive based on test data.
Eye contact	Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	1700 mg/kg
Potassium hydroxide (CAS 1310-58-3)		
Acute		
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	214 mg/kg
Sodium lauriminodipropionate (CAS 14960-06-6)		
Acute		
Dermal		
LD50	Rabbit	10200 mg/kg
Inhalation		
LC50		
Oral		
LD50	Rat	31300 mg/kg
Sodium metasilicate (CAS 6834-92-0)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	2400 mg/kg
	Rat	1153 mg/kg
Sodium tripolyphosphate (CAS 7758-29-4)		
Acute		
Dermal		
LD50	Rabbit	7940 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	3100 mg/kg

Skin corrosion/irritation	Causes skin irritation.
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

Canada - Alberta OELs: Irritant

Potassium hydroxide (CAS 1310-58-3) Irritant

Respiratory sensitization Not available.

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

Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity Not classified or listed by IARC, NTP, OSHA and ACGIH.

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

Not listed.

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.

12. Ecological Information

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

Ecotoxicological data

Components		Species	Test Results
Poly(oxy-1,2-ethanediyl), alpha-undecyl-omega-hydroxy- (CAS 34398-01-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.6 - 2.5 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	3.2 - 5 mg/L, 96 hours
Potassium hydroxide (CAS 1310-58-3)			
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	80 mg/L, 96 hours
Sodium metasilicate (CAS 6834-92-0)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	1800 mg/L, 96 hours
Sodium tripolyphosphate (CAS 7758-29-4)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	238.35 - 321.01 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. 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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	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	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.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification	In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.
General	DOT - 49 CFR 173.154 (d)(1) - Metal exemption

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN3266
Proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Technical name	Sodium metasilicate
Hazard class	Limited Quantity - Canada
Subsidiary hazard class	8
Packing group	III
Special provisions	16
Packaging exceptions	<5L - Limited Quantity, > 5L - Corrosive Placard

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)

Potassium hydroxide (CAS 1310-58-3)	Listed.
Sodium tripolyphosphate (CAS 7758-29-4)	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.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)	Hazardous substance

US state regulations

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

Potassium hydroxide (CAS 1310-58-3)	Listed.
Sodium tripolyphosphate (CAS 7758-29-4)	Listed.

US - Illinois Chemical Safety Act: Listed substance

Potassium hydroxide (CAS 1310-58-3)
Sodium tripolyphosphate (CAS 7758-29-4)

US - Louisiana Spill Reporting: Listed substance

Potassium hydroxide (CAS 1310-58-3)	Listed.
Sodium tripolyphosphate (CAS 7758-29-4)	Listed.

US - Minnesota Haz Subs: Listed substance

Potassium hydroxide (CAS 1310-58-3)	Listed.

US - New Jersey RTK - Substances: Listed substance

Potassium hydroxide (CAS 1310-58-3)

US - Texas Effects Screening Levels: Listed substance

Potassium hydroxide (CAS 1310-58-3)	Listed.
Sodium metasilicate (CAS 6834-92-0)	Listed.
Sodium tripolyphosphate (CAS 7758-29-4)	Listed.

US. Massachusetts RTK - Substance List

Potassium hydroxide (CAS 1310-58-3)
Sodium tripolyphosphate (CAS 7758-29-4)

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

Not regulated.

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

Potassium hydroxide (CAS 1310-58-3)
Sodium tripolyphosphate (CAS 7758-29-4)

US. Rhode Island RTK

Potassium hydroxide (CAS 1310-58-3)
Sodium tripolyphosphate (CAS 7758-29-4)

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.

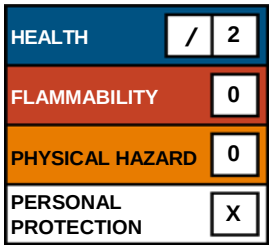
Inventory status

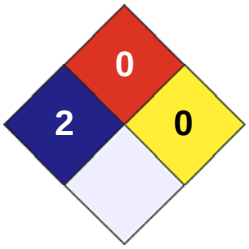
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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





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.

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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.