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 Manufacturer information

None known.

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

Health hazards

Skin corrosion/irritation

Category 1 Category 1 Category 1

Serious eye damage/eye irritation

Environmental hazards

Not classified. Not classified

WHMIS 2015 defined hazards

Label elements

Signal word

Danger

Hazard statement

May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary statement

Prevention

Keep only in original packaging. Do not breathe mist or vapor. Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

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 or shower. 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.

Store in a corrosion resistant container with a resistant inner liner. Store locked up. Dispose of waste and residues in accordance with local authority requirements.

Disposal WHMIS 2015: Health Hazard(s)

None known

not otherwise classified

(HHNOC)

WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)

Storage

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 |
| Potassium hydroxide | | 1310-58-3 | 1-5 |

| Chemical name | Common name and synonyms | CAS number | % |
|--|---|---|---|
| Sodium lauriminodipropionate | | 14960-06-6 | 1-5 |
| Sodium tripolyphosphate | | 7758-29-4 | 1-5 |
| All concentrations are in percent by Composition comments | y weight unless ingredient is a gas. Gas conce US GHS: The exact percentage (concentrati secret in accordance with paragraph (i) of §1 | on) of composition has been w | |
| | 4. First Aid Measures | 3 | |
| Inhalation | IF INHALED: Remove person to fresh air and POISON CENTER/doctor. | d keep comfortable for breathir | g. Immediately call a |
| Skin contact | 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. | | |
| Eye contact | IF IN EYES: Rinse cautiously with water for sand easy to do. Continue rinsing. Immediately | several minutes. Remove cont ly call a POISON CENTER/doo | act lenses, if present tor. |
| Ingestion | IF SWALLOWED: Rinse mouth. Do NOT ind CENTER/doctor. | uce vomiting. Immediately call | a POISON |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, red cause redness and pain. | ness, swelling, and blurred visi | on. Skin irritation. May |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and tre Symptoms may be delayed. | eat symptomatically. Keep victi | m under observation. |
| General information | Ensure that medical personnel are aware of protect themselves. If you feel unwell, seek r this safety data sheet to the doctor in attendar gloves and safety glasses with side shields. | medical advice (show the label ance. Avoid contact with eyes a | where possible). Show |
| | 5. Fire Fighting Measur | res | |
| Suitable extinguishing media | Alcohol foam. Dry chemical. Carbon dioxide. | | |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as the | nis will spread the fire. | |
| Specific hazards arising from the chemical | Firefighters should wear a self-contained bre | eathing 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 cor | nsider the hazards of other invo | olved materials. |
| Hazardous combustion products | May include and are not limited to: Oxides of | sulfur. Oxides of phosphorus. | Oxides of carbon. |
| | 6. Accidental Release Mea | sures | |
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep ou spill/leak. Wear appropriate protective equips damaged containers or spilled material unles adequate ventilation. Local authorities should contained. For personal protection, see secti | ment and clothing during clean ss wearing appropriate protecti d be advised if significant spilla | up. Do not touch ve clothing. Ensure |
| Methods and materials for containment and cleaning up | Large Spills: Stop leak if you can do so without possible. Cover with plastic sheet to prevent damage. Absorb in vermiculite, dry sand or ewaterways, sewer, basements or confined an | out risk. Dike the spilled materia spreading. Absorb spillage to pearth and place into containers. | orevent material Prevent entry into |
| | Small Spills: Wipe up with absorbent matering remove residual contamination. Never return | | |
| | Never return spills to original containers for r Prevent entry into waterways, sewers, baser | | section 13 of the SDS |

Environmental precautions

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. Store in corrosive resistant container with a resistant inner liner. Store in a closed container away Conditions for safe storage, from incompatible materials. Keep only in the original container. Store in a cool, dry place out of including any incompatibilities 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 Value Type Potassium hydroxide (CAS Ceiling 2 mg/m3 1310-58-3) 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 Ceiling 2 mg/m3 1310-58-3) Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) Components **Type** Value Potassium hydroxide (CAS Ceiling 2 mg/m3 1310-58-3) Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) Components **Type** Value Potassium hydroxide (CAS 2 mg/m3 Ceiling 1310-58-3) Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) Value Components Type Potassium hydroxide (CAS 2 mg/m3 Ceiling 1310-58-3) Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) Components Type Potassium hydroxide (CAS 1310-58-Ceiling 2 mg/m3 **US. ACGIH Threshold Limit Values** Components Type Value Potassium hydroxide (CAS 2 mg/m3 Ceiling 1310-58-3) **US. NIOSH: Pocket Guide to Chemical Hazards** Value Components Type Potassium hydroxide (CAS **TWA** 2 mg/m3 1310-58-3) **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 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, controls 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 Rubber gloves. Confirm with a reputable supplier first. Hand protection

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

General hygiene considerations

Not applicable.

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. Liquid **Form Opal Green** Color Odor Fresh

Odor threshold Not available.

13.5

Melting point/freezing point 32 °F (0 °C) Initial boiling point and boiling

range

212 °F (100 °C)

Not available. Pour point Not available. Specific gravity Partition coefficient Not available (n-octanol/water)

None to boiling Flash point **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

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available. Not available Vapor pressure Vapor density Not available Relative density Not available. Solubility(ies) Complete Not available **Auto-ignition temperature**

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

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Chemical stability Stable under recommended storage conditions.

Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with Conditions to avoid

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

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

Information on likely routes of exposure

IngestionExpected to be a low ingestion hazard.InhalationProlonged inhalation may be harmful.

Skin contact Causes severe skin burns.

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. May cause redness and pain. Permanent eye damage including blindness could result. Burning pain and

severe corrosive skin damage.

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 388 mg/kg, ECHA

365 mg/kg, ECHA 333 mg/kg, ECHA

273 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 severe skin burns and eye damage.

Exposure minutesNot available.Erythema valueNot available.Oedema valueNot available.

Serious eye damage/eye

irritation

Causes serious eye damage.

Corneal opacity valueNot available.Iris lesion valueNot available.Conjunctival reddeningNot available.

value

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 toxicityNon-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 potentialNo data available.Mobility in soilNo data available.Mobility in generalNot 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 instructionsCollect 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.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN3266

Proper shipping name Corrosive liquid, basic, inorganic, n.o.s.

Technical name Sodium metasilicate

Hazard class 8
Packing group ||

Special provisions 386, B2, IB2, T11, TP2, TP27
Packaging exceptions <1L - Limited Quantity

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 8
Packing group II
Special provisions 16

Packaging exceptions <1L - Limited Quantity

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN3266

Proper shipping name Corrosive liquid, basic, inorganic, n.o.s.

Technical name Sodium metasilicate

Hazard class 8
Packing group II

IMDG (Marine Transport)

Basic shipping requirements:

UN number UN3266

Proper shipping name CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

Technical name Sodium metasilicate

Hazard class 8
Packing group II

<1L - Limited Quantity

DOT





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

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)

Hazardous substance

Section 112(r) (40 CFR

68.130)

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

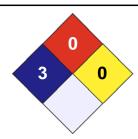
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory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

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.