

# HASACHLOR

## Safety Data Sheet

12.5% Sodium Hypochlorite

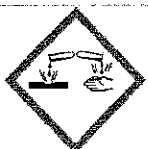


Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarters: Hasa Inc.  
P.O. Box 802736  
Santa Clarita, CA 91355  
Telephone • 661.259.5848  
Fax • 661.259.1538

### SECTION 1: IDENTIFICATION

|   |  |
|---|--|
| <b>1.1 Product Identification:</b>  |  |
| 1.1.1 <b>Product Name:</b>  | HASACHLOR  |
| 1.1.2 <b>CAS # (Chemical Abstracts Service):</b>                            | 7681-52-9  |
| 1.1.3 <b>RTECS (Registry of Toxic Effects of Chemical Substances):</b>      | NH3486300  |
| 1.1.4 <b>EINECS (European Inventory of Existing Commercial Substances):</b> | 231-668-3  |
| 1.1.5 <b>EC Number:</b>   | 231-668-3  |
| 1.1.6 <b>Synonym:</b>   | Bleach, Hypo, Hypochlorite, Liquid Chlorine Solution               |
| 1.1.7 <b>Chemical Name:</b>   | Sodium Hypochlorite  |
| 1.1.8 <b>Chemical Formula:</b>  | NaOCl  |
| <b>1.2 Recommended Uses:</b>  | Sanitizer of swimming pool and spa water.                          |
| <b>1.3 Company Identification:</b>  | Hasa Inc.<br>P. O. Box 802736<br>Santa Clarita, CA 91355           |
| <b>1.4 Emergency Telephone Number:</b>                                      | <b>CHEMTREC</b><br>1-800-424-9300<br>(24 hour Emergency Telephone) |
| <b>1.5 Non-Emergency Assistance:</b>  | 661-259-5848<br>(8 AM – 5 PM PST / PDT)                            |

## SECTION 2: HAZARD(S) IDENTIFICATION

|                                |   |   |
|--------------------------------|---|---|
| <b>HEALTH HAZARD</b>           | Skin corrosion / irritation:  | Category 1                                |
|                                | Serious Eye damage / Eye Irritation   | Category 1                                |
|                                | Specific target organ toxicity, single exposure   | Category 3 (respiratory tract irritation) |
| <b>ENVIRONMENTAL HAZARD</b>    | Hazardous to the aquatic environment, acute hazard  | Category 1                                |
| <b>PHYSICAL HAZARD</b>         | Corrosive to metals.  | Category 1                                |
| <b>SYMBOLS</b>                 |     |   |
| <b>SIGNAL WORD</b>             | <b>DANGER</b>   |   |
| <b>HAZARD STATEMENT</b>        | May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life.  |   |
| <b>PRECAUTIONARY STATEMENT</b> | <b>Prevention</b>   |   |
|                                | Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep only in original container. Avoid release to the environment.   |   |
|                                | <b>Response</b>   |   |
|                                | If swallowed: Rinse mouth. Do NOT induce vomiting.<br>If inhaled: Remove person to fresh air and keep comfortable for breathing.<br>If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Wash contaminated clothing before reuse.<br>Absorb spillage to prevent material damage. Collect spillage. |   |
|                                | <b>Storage and Disposal</b>   |   |
|                                | Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container.<br>Dispose of container/contents in accordance with local, regional, national, international regulations as specified.  |   |

## SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

|     | Ingredient          | Synonyms     | CAS No.   | Weight % |
|-----|---------------------|--------------|-----------|----------|
| 3.1 | Sodium Hypochlorite | Bleach       | 7681-52-9 | 12.5%    |
| 3.2 | Sodium Hydroxide    | Caustic Soda | 1310-73-2 | 0.2%     |

#### SECTION 4: FIRST AID MEASURES

- |                            |  |
|----------------------------|--|
| 4.1 IF IN EYES             | <input type="checkbox"/> Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br><input type="checkbox"/> Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br><input type="checkbox"/> Call a poison control center or doctor for treatment advice.   |
| 4.2 IF ON SKIN OR CLOTHING | <input type="checkbox"/> Take off contaminated clothing.<br><input type="checkbox"/> Rinse skin immediately with plenty of water for 15-20 minutes.<br><input type="checkbox"/> Call a poison control center or doctor for treatment advice.   |
| 4.3 IF INHALED             | <input type="checkbox"/> Move person to fresh air.<br><input type="checkbox"/> If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.<br><input type="checkbox"/> Call a poison control center or doctor for further treatment advice.   |
| 4.4 IF SWALLOWED           | <input type="checkbox"/> Call a poison control center or doctor immediately for treatment advice.<br><input type="checkbox"/> Have person sip a glass of water if able to swallow.<br><input type="checkbox"/> Do not induce vomiting unless told to do so by a poison control center or doctor.<br><input type="checkbox"/> Do not give anything by mouth to an unconscious person. |

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

















#### SECTION 5: FIRE FIGHTING MEASURES

- |   |  |
|---|--|
| 5.1 Flash Point:                          | Not applicable.  |
| 5.2 Flammability:                         | Nonflammable and noncombustible.   |
| 5.3 Auto-Ignition Temperature:            | Not applicable.  |
| 5.4 Products of Combustion:               | Not pertinent.   |
| 5.5 Fire Hazards:                         | May decompose, generating irritating chlorine gas.   |
| 5.6 Explosion Hazards:                    | Not explosive.   |
| 5.7 Fire Fighting Media and Instructions: |  |
| 5.7.1 Extinguishing Media:                | Water fog. Foam. Dry chemical powder. Carbon dioxide.  |
| 5.7.2 Small Fires:                        | Use carbon dioxide, or water spray.  |
| 5.7.3 Large Fires:                        | Use flooding quantities of water as fog.   |
| 5.8 Special Remarks on Fire Hazards:      | Do not use Mono Ammonium Phosphate (MAP) fire extinguishers. Such use may cause explosion with release of toxic gases. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

|     |   |   |
|-----|---|---|
| 6.1 | <b>Small Spill:</b>   | Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  |
| 6.2 | <b>Large Spill:</b>   | Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.                                   |
| 6.3 | <b>Personal Precautions, Protective Equipment &amp; Emergency Procedures:</b> | Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Absorb spillage to prevent material damage. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS. |
| 6.4 | <b>Environmental Precautions:</b>   | Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.   |

## SECTION 7: HANDLING AND STORAGE

|     |                          |   |
|-----|--------------------------|---|
| 7.1 | <b>Handling:</b>         | <ul style="list-style-type: none"> <li> Avoid contact with skin or eyes.</li> <li> Do not ingest.</li> <li> Avoid inhalation of vapor or mist.</li> <li> Wear protective equipment if necessary.</li> <li> Mix only with water in accordance with label directions.</li> <li> Mixing this product with ammonia, acids, detergents, etc or with organic materials, e.g. feces, urine, etc. will release chlorine gas, which is irritating to eyes, lungs, and mucous membranes.</li> </ul>  |
| 7.2 | <b>Hygiene Measures:</b> | <ul style="list-style-type: none"> <li> Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li> While handling this product, avoid eating, drinking or smoking.</li> </ul>   |
| 7.3 | <b>Storage:</b>          | <ul style="list-style-type: none"> <li> Do not freeze.</li> <li> Store in a cool, shaded outdoor area.</li> <li> Inside storage should be in a cool, dry, well-ventilated area.</li> <li> To maintain hypochlorite strength, do not store in direct or heated indoor areas.</li> <li> Keep in original vented container.</li> <li> Keep container closed when not in use.</li> <li> Do not store adjacent to chemicals that may react if spillage occurs.</li> <li> If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition).</li> </ul> |

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

|   |  |   |                          |
|---|--|---|--------------------------|
| 8.1   | <b>Engineering Controls:</b>   | Local exhaust ventilation to maintain levels below STEL (Short Term Exposure Limit) of 1 ppm as chlorine.   |                          |
| 8.2   | <b>Personal Protection:</b>  |   |                          |
| 8.2.1   | <b>Eye / Face Protection:</b>  | Wear safety glasses, goggles or face shield to prevent eye contact.   |                          |
| 8.2.2   | <b>Skin Protection:</b>  | Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Butyl rubber, Neoprene, or Nitrile Gloves should be worn when handling this material. Wear chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse.   |                          |
| 8.2.3   | <b>Respiratory Protection:</b>   | Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and chemical goggles. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus. |                          |
| 8.2.4   | <b>Other Safety Equipment:</b>   | Eye wash facility and emergency shower should be in close proximity.  |                          |
| 8.3   | <b>Exposure Limits:</b>  | <b>Sodium Hypochlorite</b>  | <b>Chlorine*</b>         |
| 8.3.1   | <b>AIHA</b> (American Industrial Hygiene Association) / <b>WEEL</b> (Workplace Environmental Exposure Level guides) 2010 | 2 mg/m <sup>3</sup> : 15 minute. (Short-term time weighted average)   | Not established          |
| 8.3.2   | <b>ACGIH</b> (American Conference of Governmental Industrial Hygienists) <b>TWA</b> (Time Weighted Average)              | Not established.  | 0.5 ppm                  |
| 8.3.3   | <b>ACGIH STEL</b> (Short Term Exposure Limit)  | Not established.  | 1 ppm                    |
| 8.3.4   | <b>OSHA PEL</b> (Permissible Exposure Limit)   | Not established.  | 0.5 ppm                  |
| 8.3.5   | <b>ACGIH Ceiling</b>   | Not established.  | Not established          |
| 8.3.6   | <b>NIOSH</b> (National Institute for Occupational Safety & Health) <b>IDLH</b> (Immediate Danger to Life & Health)       | Not established.  | 10 ppm                   |
| 8.3.7   | <b>OSHA STEL</b> (Short Term Exposure Limit)   | Not established.  | 1 ppm as Cl <sub>2</sub> |
| 8.3.8   | <b>NIOSH</b> (15 min. ceiling)   | Not established.  | 0.5 ppm                  |
| * Chlorine is unlikely to be present as a decomposition product, but may be present in incidents of accidental mixing with other chemicals. |  |   |                          |

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

|      |  |   |
|------|--|---|
| 9.1  | <b>Appearance:</b>                                     | Greenish yellow liquid.                           |
| 9.2  | <b>Odor:</b>   | Pungent.  |
| 9.3  | <b>Odor Threshold:</b>                                 | 0.9 mg/m <sup>3</sup> .                           |
| 9.4  | <b>pH:</b>   | 11.2 – 11.4 (1% solution)                         |
| 9.5  | <b>Melting Point:</b>                                  | Not pertinent.                                    |
| 9.6  | <b>Freezing point:</b>                                 | -23.3 °C (-10 °F)                                 |
| 9.7  | <b>Boiling Point &amp; Boiling Range:</b>              | Decomposes @ 110 °C (230 °F)                      |
| 9.8  | <b>Flash Point:</b>                                    | No information available.                         |
| 9.9  | <b>Evaporation Rate:</b>                               | No information available.                         |
| 9.10 | <b>Flammability (solid, gas):</b>                      | Not flammable.                                    |
| 9.11 | <b>Upper / Lower Flammability or Explosive Limits:</b> | No information available.                         |
| 9.12 | <b>Vapor Pressure:</b>                                 | 12.1 mm Hg @ 20 °C (68 °F)                        |
| 9.13 | <b>Vapor Density:</b>                                  | 2.61 (air=1)                                      |
| 9.14 | <b>Relative Density (Specific Gravity):</b>            | 1.2 g/mL or 10 lb/gallon @ 20 °C (68 °F)          |
| 9.15 | <b>Solubility in Water:</b>                            | Mixes infinitely with water.                      |
| 9.16 | <b>Partition Coefficient: (n-octanol / water):</b>     | No information available.                         |
| 9.17 | <b>Auto-ignition Temperature:</b>                      | No information available.                         |
| 9.18 | <b>Decomposition Temperature:</b>                      | Decomposes @ 110 °C (230 °F)                      |
| 9.19 | <b>Molecular Weight:</b>                               | 74.5 g/mole                                       |
| 9.20 | <b>Viscosity:</b>                                      | 1.75 - 2.50 centipoises (varies with temperature) |

**SECTION 10: STABILITY AND REACTIVITY**

|      |   |   |
|------|---|---|
| 10.1 | <b>Stability:</b>                               | Stable under normal conditions of storage, handling, and use.   |
| 10.2 | <b>Instability / Decomposition Temperature:</b> | All bleach decomposition is dependant on temperature. For any given temperature, the higher the strength, the faster it decomposes. In summary, for every 10 °C increase in storage temperature, the sodium hypochlorite will decompose at an increased rate factor of approximately 3.5. |
| 10.3 | <b>Conditions of Instability:</b>               | High heat, ultraviolet light.   |
| 10.4 | <b>Incompatibility with Various Substances:</b> | Oxidizing agents, acids, nitrogen containing organics, metals, iron, copper, nickel, cobalt, organic materials, and ammonia.  |
| 10.5 | <b>Corrosivity:</b>                             | Corrosive to metals.  |
| 10.6 | <b>Special Remarks on Reactivity:</b>           | Rate of decomposition increases with heat.<br>May develop chlorine if mixed with acidic solutions.  |
| 10.7 | <b>Special Remarks on Corrosivity:</b>          | None.   |
| 10.8 | <b>Hazardous Polymerization:</b>                | Will not occur.   |

## SECTION 11: TOXICOLOGICAL INFORMATION

|        |  |  |
|--------|--|--|
| 11.1   | Routes of Entry:                         | Eyes, skin, ingestion, dermal absorption.  |
| 11.2   | Acute Toxicity:                          |  |
| 11.2.1 | Oral Toxicity (LD <sub>50</sub> ):       | 3-5 g/kg (rat)   |
| 11.2.2 | Dermal Toxicity (LD <sub>50</sub> ):     | >2 g/kg (rabbit)   |
| 11.2.3 | Primary Eye Irritation:                  | Corrosive  |
| 11.2.4 | Primary Skin Irritation:                 | Corrosive  |
| 11.2.5 | Inhalation Toxicity (LC <sub>50</sub> ): | No data available.   |
| 11.3   | Chronic Effects (Human Risk Assessment): | Based on the toxicity profile and exposure scenarios for sodium hypochlorite, EPA concludes that the risks from chronic and subchronic exposure to low levels of these pesticides are minimal and without consequence to human health. |
| 11.4   | Tolerance Requirement:                   | Exempt (EPA document "Index to Pesticide Chemical Names, Part 180 Tolerance Information, and Food and Feed Commodities (by Commodity)" July 2010)  |

## SECTION 12: ECOLOGICAL INFORMATION

|        |                           |   |
|--------|---------------------------|---|
| 12.1   | Ecotoxicity:              | Sodium hypochlorite is low in toxicity to avian wildlife, but it is highly toxic to freshwater fish and invertebrates.  |
| 12.1.1 | Freshwater Fish Toxicity: | Atlantic Herring ( <i>clupea harengus</i> )<br>LC <sub>50</sub> = 0.033 - 0.097 mg/l/96 hr, flow through bioassay (pH: 8)<br>Shiner Perch ( <i>cymatogaster aggregata</i> )<br>LC <sub>50</sub> = 0.045 - 0.098 mg/l/96 hr, flow through bioassay (pH: 8)<br>Three Spine Stickleback ( <i>gasterosteus aculeatus</i> )<br>LC <sub>50</sub> = 0.141 - 0.193 mg/l/96 hr, flow through bioassay (pH: 8)<br>Pink Salmon ( <i>oncorhynchus gorbuscha</i> )<br>LC <sub>50</sub> = 0.023 - 0.052 mg/l/96 hr, flow through bioassay (pH: 8)<br>Coho Salmon ( <i>oncorhynchus kisutch</i> )<br>LC <sub>50</sub> = 0.026 - 0.038 mg/l/96 hr, flow through bioassay (pH: 8)<br>English Sole ( <i>parophrys vetulus</i> )<br>LC <sub>50</sub> = 0.044 - 0.144 mg/l/96 hr, flow through bioassay (pH: 8)<br>Fat Head Minnow ( <i>pimephales promelas</i> )<br>LC <sub>50</sub> = 0.22 - 0.62 mg/l/96 hr, flow through bioassay (pH: 7) |
| 12.1.2 | Invertebrate Toxicity:    | Water Flea ( <i>ceriodaphnia</i> sp. 0)<br>LC <sub>50</sub> = 0.006 mg/l/24 hr<br>Water Flea ( <i>daphnia magna</i> )<br>LC <sub>50</sub> = 0.07 - 0.7 mg/l/24 hr<br>Water Flea ( <i>daphnia magna</i> )<br>LC <sub>50</sub> = 2.1 mg/l/96 hr<br>Fresh Water Shrimp ( <i>gammarus fasciatus</i> )<br>LC <sub>50</sub> = 0.4 mg/l/96 hr<br>No common name ( <i>nitocra spinipes</i> )<br>LC <sub>50</sub> = 0.40 mg/l/96 hr<br>Grass Shrimp ( <i>palaemonetes pugio</i> )<br>LC <sub>50</sub> = 0.52 mg/l/96 hr  |
| 12.2   | Persistence:              | No data available.  |
| 12.3   | Environmental Fate:       | In fresh water, sodium hypochlorite breaks down rapidly into non-toxic compounds when exposed to sunlight. In seawater, chlorine levels decline rapidly; however, hypobromite (which is acutely toxic to aquatic organisms) is formed. EPA believes that the risk of acute exposure to aquatic organisms is sufficiently mitigated by precautionary labeling and National Pollutant Discharge Elimination System (NPDES) permit requirements.   |
| 12.4   | Bioconcentration:         | This material is not expected to bioconcentrate in organisms.   |
| 12.5   | Biodegradation:           | This material is inorganic and not subject to biodegradation.   |

**SECTION 13: DISPOSAL CONSIDERATIONS**

Do not contaminate food or feed by storage, disposal, or cleaning of equipment. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. This product can be neutralized with sodium bisulfite, sodium thiosulfate, sodium sulfite. Do not confuse these products with sulfates or bisulfates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination system (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not contaminate water containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Dispose of in accordance with all applicable local, County, State, and Federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

|   |  | Inside containers<br>( <b>&lt; 1.3 gallons</b> )                  | Container<br>( <b>&gt;1.3 gallons</b> )                           |
|---|--|---|---|
| 14.1  | <b>UN Number</b>   | Limited Quantity  | UN 1791   |
| 14.2  | <b>UN Proper Shipping Name</b>   | --  | Hypochlorite Solutions<br>(Sodium Hypochlorite)                   |
| 14.3  | <b>Transport Hazard Class</b>  | --  | 8   |
| 14.4  | <b>Packing Group</b>   | --  | PG III  |
| 14.5  | <b>Environmental Hazard (e.g. Marine Pollutant)</b>  | Yes   | Yes   |
| 14.6  | <b>Reportable Quantity (RQ):</b>   | 100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient) | 100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient) |
| 14.7  | <b>Materials of Trade (MOT) Exceptions.</b><br>Certain hazardous materials transported in small quantities as part of a business are subject to less regulation, because of the limited hazard they pose. These materials are known as Materials of Trade. The regulations that apply to MOTs are found in 49 CFR § 173.6. |   |   |
| This information is not intended to convey all specific regulatory or operational requirements / information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. |  |   |   |



## SECTION 15: REGULATORY INFORMATION

### 15.1 U.S. Regulations:

- |        |   |   |
|--------|---|---|
| 15.1.1 | <b>OSHA HAZCOM</b> (Hazard Communication)   | This material is considered hazardous under the HAZCOM Standard (29 CFR 1910.1200)                        |
| 15.1.2 | <b>OSHA PSM</b> (Process Safety Management)   | Not regulated under PSM Standard (29 CFR 1910.119)  |
| 15.1.3 | <b>EPA FIFRA</b> (Federal Insecticide, Fungicide and Rodenticide Act)                     | EPA Reg. No. :10897-26<br>(Registered pesticide under 40 CFR 152.10)                                      |
| 15.1.4 | <b>EPA TSCA</b> (Toxic Substance Control Act)   | All components are listed or exempted.<br>TSCA 12(b): This product is not subject to export notification. |
| 15.1.5 | <b>EPA CERCLA</b> (Comprehensive Environmental Response, Compensation, and Liability Act) | Reportable Quantity (RQ): 45.4 kg (100 lbs) or 80 gallons (based on 12.5% active ingredient).             |
| 15.1.6 | <b>EPA RMP</b> (Risk Management Plan)   | Not listed. (40 CFR 68.130)   |

### 15.2 State of California Regulations:

- 15.2.1 **Safe Drinking Water and Toxic Enforcement Act of 1986 [Proposition 65, California only]:** Small quantities – less than 100 ppm (parts per million) – of impurities, including bromates, may be found in all chlorinating products, including this product. Bromates are derived from bromides, which are present in sodium chloride (table salt) from which chlorine is manufactured. Additional small quantities of bromates may be generated during the disinfection process. Bromates are known by the State of California to cause cancer when administered by the oral (drinking or ingesting) route. Read and follow label directions and use care when handling or using this product. The US Environmental Protection Agency has established a maximum contaminant level (MCL) for bromates in drinking water at 10 ppb (parts per billion). Application of this product in accordance with label directions at use dilution will not exceed this level.  
This warning is provided pursuant to Proposition 65, Chapter 6.6 of the California Health and Safety Code, which requires the Governor of California to publish a list of chemicals "known to the State to cause cancer or reproductive toxicity." This list is compiled in accordance with the procedures established under the proposition, and can be obtained on the internet from California's Office of Environmental Health Hazard Assessment at <http://www.oehha.ca.gov>.
- 15.2.2 **CDPR** (California Department of Pesticide Regulation)      Registration No: 10897-26-ZB
- 15.2.3 **CalARP** (California Accidental Release Prevention Program)      Not regulated.

### 15.3 Canada Regulations:

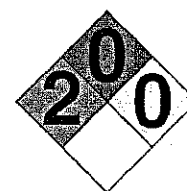
- 15.3.1 **WHMIS** (Workplace Hazardous Materials Information System)      ☒ Classification: E (Corrosive Materials)  
☒ Health Effects Criteria Met by this Chemical:  
☒ E - Corrosive to skin  
☒ E - TDG class 8 - corrosive substance  
☒ Ingredient Disclosure List: Included for disclosure at 1% or greater.
- 15.3.2 **DSL** (Domestic Substances List)      All components of this product are on the DSL.

### 15.4 International Inventory:

- |        |  |   |
|--------|--|---|
| 15.4.1 | <b>AICS</b> (Australian Inventory of Chemical Substances)                | On inventory or in compliance with inventory. |
| 15.4.2 | <b>KECI</b> (Korean Existing Chemicals Inventory)                        | On inventory or in compliance with inventory. |
| 15.4.3 | <b>PICCS</b> (Philippine Inventory of Chemicals and Chemical Substances) | On inventory or in compliance with inventory. |
| 15.4.4 | <b>IECSC</b> (Inventory of Existing Chemical Substances in China)        | On inventory or in compliance with inventory. |
| 15.4.5 | <b>NZIoC</b> (New Zealand Inventory of Chemicals)                        | On inventory or in compliance with inventory. |

## SECTION 16: OTHER INFORMATION

|        |   |  |
|--------|---|--|
| 16.1   | <b>HMIS III</b> (Hazardous Materials Identification System):    |  |
| 16.1.1 | <b>HEALTH</b>   | <b>2</b>                                 |
| 16.1.2 | <b>FLAMMABILITY</b>   | <b>0</b>                                 |
| 16.1.3 | <b>PHYSICAL HAZARD</b>  | <b>1</b>                                 |
| 16.1.4 | <b>PERSONAL PROTECTION</b>                                      | See Section 8.                           |
| 16.2   | <b>NFPA 704</b> (National Fire Protection Association):         |  |
| 16.2.1 | <b>HEALTH</b>   | <b>2</b>                                 |
| 16.2.2 | <b>FLAMMABILITY</b>   | <b>0</b>                                 |
| 16.2.3 | <b>INSTABILITY</b>  | <b>0</b>                                 |
| 16.2.4 | <b>SPECIAL</b>  | <b>None</b>                              |
| 16.3   | <b>International Fire Code / International Building Code:</b>   | Irritant.                                |
| 16.4   | <b>ANSI</b> (American National Standards Institute):            |  |
| 16.4.1 | <b>Hazardous Industrial Chemicals - SDS-Preparation:</b>        | Complies with <b>ANSI Z400.1 – 2004.</b> |
| 16.4.2 | <b>Hazardous Industrial Chemicals - Precautionary Labeling:</b> | Complies with <b>ANSI Z129.1 – 2006.</b> |



**Note:** The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. **NO WARRANTY OR GUARANTEE**, express or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation, and use procedures. The safe handling, storage, transportation, and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation, or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc. This Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.



## SAFETY DATA SHEET

## KEYSTONE LIQUID DISHMACHINE DETERGENT

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : KEYSTONE LIQUID DISHMACHINE DETERGENT

Other means of identification : Not applicable

Recommended use : Machine Warewashing Detergent

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.08 % - 0.11 %

Company : Ecolab Inc.  
370 N. Wabasha Street  
St. Paul, Minnesota USA 55102  
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 02/03/2016

## SECTION 2. HAZARDS IDENTIFICATION

## GHS Classification

## Product AS SOLD

Skin corrosion : Category 1A

Serious eye damage : Category 1

## Product AT USE DILUTION

Not a hazardous substance or mixture.

## GHS Label element

## Product AS SOLD

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements :

## Prevention:

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

## Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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/ physician. Wash contaminated clothing before reuse.

## Storage:

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

Store locked up.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Product AT USE DILUTION**

Precautionary Statements

**Prevention:**

Wash hands thoroughly after handling.

**Response:**

Get medical advice/ attention if you feel unwell.

**Storage:**

Store in accordance with local regulations.

**Product AS SOLD**

Other hazards

: None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Product AS SOLD**

Pure substance/mixture

: Mixture

**Chemical Name**

sodium hydroxide

**CAS-No.**

1310-73-2

**Concentration (%)**

10 - 30

**Product AT USE DILUTION**

No hazardous ingredients

### SECTION 4. FIRST AID MEASURES

**Product AS SOLD**

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed

: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled

: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders

: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician

: Treat symptomatically.

Most important symptoms and effects, both acute and delayed

: See Section 11 for more detailed information on health effects and symptoms.

**Product AT USE DILUTION**

In case of eye contact

: Rinse with plenty of water.

In case of skin contact

: Rinse with plenty of water.

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.

#### SECTION 5. FIRE-FIGHTING MEASURES

##### Product AS SOLD

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides (NOx)  
Sulfur oxides  
Oxides of phosphorus
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

##### Product AS SOLD

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

##### Product AT USE DILUTION

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### SECTION 7. HANDLING AND STORAGE

##### Product AS SOLD

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. SAFETY REMINDER:  
\* Never pour product into unlabeled containers  
\* Use only for recommended uses. Read label.  
\* Never take product home. Use only in workplace.

Conditions for safe storage : Do not store near acids. Keep out of reach of children. Store in suitable labeled containers.

Storage temperature : 0 °C to 50 °C

##### Product AT USE DILUTION

Advice on safe handling : Wash hands after handling. For personal protection see section 8.

Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Product AS SOLD

##### Ingredients with workplace control parameters

| Ingredients      | CAS-No.   | Form of exposure | Permissible concentration | Basis     |
|------------------|-----------|------------------|---------------------------|-----------|
| sodium hydroxide | 1310-73-2 | Ceiling          | 2 mg/m3                   | ACGIH     |
|                  |           | Ceiling          | 2 mg/m3                   | NIOSH REL |
|                  |           | TWA              | 2 mg/m3                   | OSHA Z1   |

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### Personal protective equipment

Eye protection : Wear eye protection/ face protection.

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

Wash face, hands and any exposed skin thoroughly after handling.  
Provide suitable facilities for quick drenching or flushing of the eyes  
and body in case of contact or splash hazard.

#### Product AT USE DILUTION

##### Engineering measures

Good general ventilation should be sufficient to control worker  
exposure to airborne contaminants.

#### Personal protective equipment

##### Eye protection

: No special protective equipment required.

##### Hand protection

: No special protective equipment required.

##### Skin protection

: No special protective equipment required.

##### Respiratory protection

: No personal respiratory protective equipment normally required.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  | Product AS SOLD     | Product AT USE DILUTION |
|--|---------------------|-------------------------|
| Appearance                                 | : liquid            | liquid                  |
| Color                                      | : clear, dark red   | light pink              |
| Odor                                       | : odorless          | odorless                |
| pH   | : 13.5, 100 %       | 10.6 - 11.3             |
| Flash point                                | : Not applicable    |                         |
| Odor Threshold                             | : No data available |                         |
| Melting point/freezing point               | : No data available |                         |
| Initial boiling point and<br>boiling range | : No data available |                         |
| Evaporation rate                           | : No data available |                         |
| Flammability (solid, gas)                  | : No data available |                         |
| Upper explosion limit                      | : No data available |                         |
| Lower explosion limit                      | : No data available |                         |
| Vapor pressure                             | : No data available |                         |
| Relative vapor density                     | : No data available |                         |
| Relative density                           | : 1.25              |                         |
| Water solubility                           | : soluble           |                         |
| Solubility in other solvents               | : No data available |                         |
| Partition coefficient: n-<br>octanol/water | : No data available |                         |
| Autoignition temperature                   | : No data available |                         |
| Thermal decomposition                      | : No data available |                         |
| Viscosity, kinematic                       | : No data available |                         |
| Explosive properties                       | : No data available |                         |
| Oxidizing properties                       | : No data available |                         |
| Molecular weight                           | : No data available |                         |

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

VOC : No data available

#### SECTION 10. STABILITY AND REACTIVITY

##### Product AS SOLD

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : None known.

Incompatible materials : Acids

Hazardous decomposition products : Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides (NOx)  
Sulfur oxides  
Oxides of phosphorus

#### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

##### Potential Health Effects

##### Product AS SOLD

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

##### Product AT USE DILUTION

Eyes : Health injuries are not known or expected under normal use.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

##### Experience with human exposure

##### Product AS SOLD

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough



## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

#### Product AT USE DILUTION

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Toxicity

##### Product AS SOLD

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : No data available

Respiratory or skin sensitization : No data available

Carcinogenicity : No data available

Reproductive effects : No data available

Germ cell mutagenicity : No data available

Teratogenicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration toxicity : No data available

### SECTION 12. ECOLOGICAL INFORMATION

#### Product AS SOLD

##### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

##### Ingredients

Toxicity to daphnia and other aquatic invertebrates : sodium hydroxide  
48 h EC50: 40 mg/l

##### Persistence and degradability

No data available

##### Bioaccumulative potential

No data available

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

#### Mobility in soil

No data available

#### Other adverse effects

No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Product AS SOLD

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

#### Product AT USE DILUTION

Disposal methods : Diluted product can be flushed to sanitary sewer.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

### SECTION 14. TRANSPORT INFORMATION

#### Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

UN number : 1824  
Description of the goods : Sodium hydroxide solution  
Class : 8  
Packing group : II  
Environmentally hazardous : no

#### Sea transport (IMDG/IMO)

UN number : 1824  
Description of the goods : SODIUM HYDROXIDE SOLUTION  
Class : 8  
Packing group : II  
Marine pollutant : no

#### Product AT USE DILUTION

Not intended for transport.

### SECTION 15. REGULATORY INFORMATION

#### Product AS SOLD

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

#### EPCRA - Emergency Planning and Community Right-to-Know

##### CERCLA Reportable Quantity

| Ingredients      | CAS-No.   | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------------|-----------|--------------------|-----------------------------|
| sodium hydroxide | 1310-73-2 | 1000               | 4364                        |

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

**United States TSCA Inventory :**  
On TSCA Inventory

**Canadian Domestic Substances List (DSL) :**  
All components of this product are on the Canadian DSL

**Australia Inventory of Chemical Substances (AICS) :**  
On the inventory, or in compliance with the inventory

**New Zealand. Inventory of Chemical Substances :**  
On the inventory, or in compliance with the inventory

**Japan. ENCS - Existing and New Chemical Substances Inventory :**  
On the inventory, or in compliance with the inventory

**Japan. ISHL - Inventory of Chemical Substances (METI) :**  
On the inventory, or in compliance with the inventory

**Korea. Korean Existing Chemicals Inventory (KECI) :**  
On the inventory, or in compliance with the inventory

**Philippines Inventory of Chemicals and Chemical Substances (PICCS) :**  
On the inventory, or in compliance with the inventory

**China. Inventory of Existing Chemical Substances in China (IECSC) :**  
On the inventory, or in compliance with the inventory

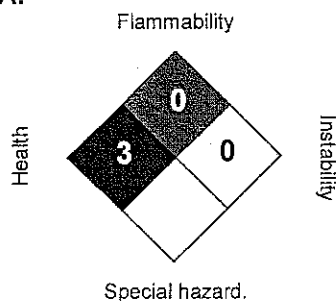
### SECTION 16. OTHER INFORMATION

Product AS SOLD

## SAFETY DATA SHEET

### KEYSTONE LIQUID DISHMACHINE DETERGENT

#### NFPA:



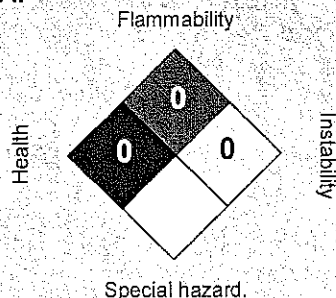
#### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 3 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

#### Product AT USE DILUTION

#### NFPA:



#### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 0 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Issuing date : 02/03/2016  
Version : 1.1  
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



## SAFETY DATA SHEET

## KEYSTONE SANITIZER

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : KEYSTONE SANITIZER

Other means of identification : Not applicable

Recommended use : Sanitizer

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.00024 % - 0.84 %  
UP TO 14 OZ/13 GAL OF WATER

Company : Ecolab Inc.  
1 Ecolab Place  
St. Paul, Minnesota USA 55102  
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 10/13/2017

## SECTION 2. HAZARDS IDENTIFICATION

## GHS Classification

## Product AS SOLD

Oxidizing liquids : Category 2

Skin corrosion : Category 1A

Serious eye damage : Category 1

## Product AT USE DILUTION

Acute toxicity (Oral) : Category 4

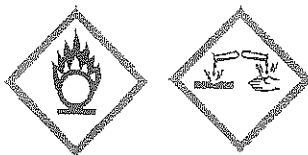
Acute toxicity (Dermal) : Category 4

Eye irritation : Category 2B

## GHS label elements

## Product AS SOLD

Hazard pictograms



Signal Word : Danger

Hazard Statements : May intensify fire; oxidizer.  
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**  
Keep away from heat. Keep/Store away from clothing/ combustible materials. Take any precaution to avoid mixing with combustibles. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

comfortable for breathing. Immediately call a POISON CENTER/doctor. 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. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

#### Product AT USE DILUTION

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: Harmful if swallowed or in contact with skin.  
Causes eye irritation.

Precautionary Statements

**Prevention:**

Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing.

**Response:**

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention. Wash contaminated clothing before reuse.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

#### Product AS SOLD

Other hazards

: Mixing this product with acid or ammonia releases chlorine gas.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Product AS SOLD

Pure substance/mixture

: Mixture

**Chemical name**  
sodium hypochlorite

**CAS-No.**  
7681-52-9

**Concentration (%)**  
8.4

#### Product AT USE DILUTION

**Chemical name**  
sodium hypochlorite

**CAS-No.**  
7681-52-9

**Concentration (%)**  
0.0706

### SECTION 4. FIRST AID MEASURES

#### Product AS SOLD

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

#### Product AT USE DILUTION

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Product AS SOLD

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Oxidizer. Contact with other material may cause fire.

Hazardous combustion products : Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides (NOx)  
Sulfur oxides  
Oxides of phosphorus

Special protective equipment for fire-fighters : Use personal protective equipment.

Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

#### Product AS SOLD

Personal precautions,  
protective equipment and  
emergency procedures

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for  
containment and cleaning up

: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### Product AT USE DILUTION

Personal precautions,  
protective equipment and  
emergency procedures

: Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for  
containment and cleaning up

: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### SECTION 7. HANDLING AND STORAGE

#### Product AS SOLD

Advice on safe handling

: Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

Conditions for safe storage

: Keep in a cool, well-ventilated place. Do not store near acids. Keep away from reducing agents. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature

: -15 °C to 40 °C

#### Product AT USE DILUTION

Advice on safe handling

: Wash hands thoroughly after handling.

Conditions for safe storage

: Keep out of reach of children. Store in suitable labeled containers.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Product AS SOLD

Ingredients with workplace control parameters

| Ingredients | CAS-No. | Form of | Permissible | Basis |
|-------------|---------|---------|-------------|-------|
|-------------|---------|---------|-------------|-------|



# SAFETY DATA SHEET

## KEYSTONE SANITIZER

|                     |           | exposure | concentration         |           |
|---------------------|-----------|----------|-----------------------|-----------|
| sodium hypochlorite | 7681-52-9 | STEL     | 2 mg/m3               | AIHA WEEL |
| chlorine            | 7782-50-5 | TWA      | 0.5 ppm               | ACGIH     |
|                     |           | STEL     | 1 ppm                 | ACGIH     |
|                     |           | Ceiling  | 0.5 ppm<br>1.45 mg/m3 | NIOSH REL |
|                     |           | C        | 1 ppm<br>3 mg/m3      | OSHA Z1   |

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

Eye protection : Wear eye protection/ face protection.

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.  
Wash face, hands and any exposed skin thoroughly after handling.  
Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

### Product AT USE DILUTION

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

Eye protection : No special protective equipment required.

Hand protection : No special protective equipment required.

Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|             | Product AS SOLD  | Product AT USE DILUTION |
|-------------|------------------|-------------------------|
| Appearance  | : liquid         | liquid                  |
| Color       | : light yellow   | colorless               |
| Odor        | : Chlorine       | slight chlorine         |
| pH          | : 12.5, (100 %)  | 6.0 - 9.5               |
| Flash point | : Not applicable |                         |

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

|   |                     |
|---|---------------------|
| Odor Threshold                          | : No data available |
| Melting point/freezing point            | : No data available |
| Initial boiling point and boiling range | : No data available |
| Evaporation rate                        | : No data available |
| Flammability (solid, gas)               | : No data available |
| Upper explosion limit                   | : No data available |
| Lower explosion limit                   | : No data available |
| Vapor pressure                          | : No data available |
| Relative vapor density                  | : No data available |
| Relative density                        | : 1.154             |
| Water solubility                        | : No data available |
| Solubility in other solvents            | : No data available |
| Partition coefficient: n-octanol/water  | : No data available |
| Autoignition temperature                | : No data available |
| Thermal decomposition                   | : No data available |
| Viscosity, kinematic                    | : No data available |
| Explosive properties                    | : No data available |
| Oxidizing properties                    | : No data available |
| Molecular weight                        | : No data available |
| VOC                                     | : No data available |

### SECTION 10. STABILITY AND REACTIVITY

#### Product AS SOLD

|                                    |  |
|------------------------------------|--|
| Chemical stability                 | : Stable under normal conditions.  |
| Possibility of hazardous reactions | : Mixing this product with acid or ammonia releases chlorine gas.  |
| Conditions to avoid                | : None known.  |
| Incompatible materials             | : Acids<br>Metals  |
| Hazardous decomposition products   | : Decomposition products may include the following materials:<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulfur oxides<br>Oxides of phosphorus |

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

#### Product AS SOLD

- Eyes : Causes serious eye damage.
- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

#### Product AT USE DILUTION

- Eyes : Causes eye irritation.
- Skin : Harmful in contact with skin.
- Ingestion : Harmful if swallowed.
- Inhalation : Health injuries are not known or expected under normal use.
- Chronic Exposure : Health injuries are not known or expected under normal use.

#### Experience with human exposure

#### Product AS SOLD

- Eye contact : Redness, Pain, Corrosion
- Skin contact : Redness, Pain, Corrosion
- Ingestion : Corrosion, Abdominal pain
- Inhalation : Respiratory irritation, Cough

#### Product AT USE DILUTION

- Eye contact : Redness, Irritation
- Skin contact : No information available.
- Ingestion : No information available.
- Inhalation : No symptoms known or expected.

#### Toxicity

#### Product AS SOLD

##### Product

- Acute oral toxicity : No data available
- Acute inhalation toxicity : No data available
- Acute dermal toxicity : No data available
- Skin corrosion/irritation : No data available
- Respiratory or skin sensitization : No data available
- Carcinogenicity : No data available
- Reproductive effects : No data available
- Germ cell mutagenicity : No data available

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

Teratogenicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration toxicity : No data available

#### Ingredients

Acute oral toxicity : sodium hypochlorite  
LD50 Rat: 5,230 mg/kg

#### Ingredients

Acute dermal toxicity : sodium hypochlorite  
LD50 Rabbit: > 10,000 mg/kg

### SECTION 12. ECOLOGICAL INFORMATION

#### Product AS SOLD

##### Ecotoxicity

Environmental Effects : Toxic to aquatic life.

#### Product

Toxicity to fish : 96 h LC50 Oncorhynchus mykiss (rainbow trout): 2.1 mg/l  
96 h LC50 Inland Silverside: 7.6 mg/l

Toxicity to daphnia and other aquatic invertebrates : 48 h LC50 Daphnia dubia (Water flea): 0.57 mg/l  
48 h LC50 Americamysis bahia: 18.1 mg/l

Toxicity to algae : No data available

#### Persistence and degradability

#### Product AS SOLD

Not applicable - Biocide

#### Product AT USE DILUTION

Not applicable - Biocide

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Product AS SOLD

Disposal methods : Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

RCRA - Resource Conservation and Recovery Act Hazardous waste : D002 (Corrosive)

#### Product AT USE DILUTION

Disposal methods : Diluted product can be flushed to sanitary sewer.

Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

### SECTION 14. TRANSPORT INFORMATION

#### Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

#### Land transport (DOT)

UN number : 1791  
Description of the goods : Hypochlorite solutions  
Class : 8  
Packing group : III  
Environmentally hazardous : no

#### Sea transport (IMDG/IMO)

UN number : 1791  
Description of the goods : HYPOCHLORITE SOLUTION  
Class : 8  
Packing group : III  
Marine pollutant : yes

### SECTION 15. REGULATORY INFORMATION

#### Product AS SOLD

EPA Registration number : 1677-52

EPCRA - Emergency Planning and Community Right-to-Know

#### CERCLA Reportable Quantity

| Ingredients | CAS-No. | Component RQ (lbs) | Calculated product RQ |
|-------------|---------|--------------------|-----------------------|
|-------------|---------|--------------------|-----------------------|

## SAFETY DATA SHEET

### KEYSTONE SANITIZER

|                     |           |     |       |
|---------------------|-----------|-----|-------|
|                     |           |     | (lbs) |
| sodium hypochlorite | 7681-52-9 | 100 | 1000  |

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard  
Fire Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

#### Switzerland. New notified substances and declared preparations :

On the inventory, or in compliance with the inventory

#### United States TSCA Inventory :

On TSCA Inventory

#### Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL

#### Australia Inventory of Chemical Substances (AICS) :

On the inventory, or in compliance with the inventory

#### New Zealand. Inventory of Chemical Substances :

On the inventory, or in compliance with the inventory

#### Japan. ENCS - Existing and New Chemical Substances Inventory :

On the inventory, or in compliance with the inventory

#### Korea. Korean Existing Chemicals Inventory (KECI) :

On the inventory, or in compliance with the inventory

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

On the inventory, or in compliance with the inventory

#### China. Inventory of Existing Chemical Substances in China (IECSC) :

On the inventory, or in compliance with the inventory

#### Taiwan Chemical Substance Inventory :

On the inventory, or in compliance with the inventory

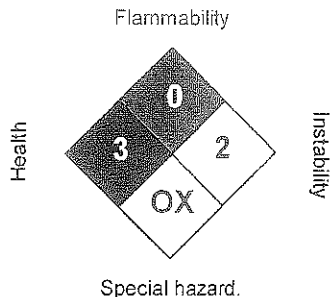
### SECTION 16. OTHER INFORMATION

Product AS SOLD

# SAFETY DATA SHEET

## KEYSTONE SANITIZER

### NFPA:



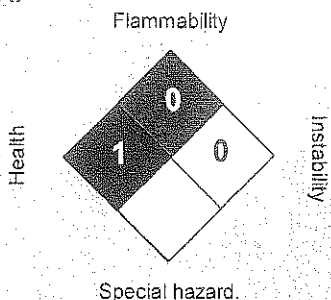
### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 3 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 2 |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

### Product AT USE DILUTION

#### NFPA:



### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 2 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Issuing date : 10/13/2017  
Version : 1.7  
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.







## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : KEYSTONE LIQUID RINSE ADDITIVE

Other means of identification : Not applicable

Recommended use : Rinse additive

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.0132 % - 0.0311 %

Company : Ecolab Inc.  
370 N. Wabasha Street  
St. Paul, Minnesota USA 55102  
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 07/12/2016

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

##### Product AS SOLD

Not a hazardous substance or mixture.

##### Product AT USE DILUTION

Not a hazardous substance or mixture.

##### GHS label elements

##### Product AS SOLD

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

##### Product AT USE DILUTION

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

##### Product AS SOLD

Other hazards : None known.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

##### Product AS SOLD

Pure substance/mixture : Mixture

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

| Chemical name          | CAS-No.                | Concentration (%) |
|------------------------|------------------------|-------------------|
| Sodium Xylenesulfonate | 1300-72-7              | 5 - 10            |
| Surfactant             | Proprietary Ingredient | 1 - 5             |

#### Product AT USE DILUTION

No hazardous ingredients

### SECTION 4. FIRST AID MEASURES

#### Product AS SOLD

|   |  |
|---|--|
| In case of eye contact                                      | : Rinse with plenty of water.  |
| In case of skin contact                                     | : Rinse with plenty of water.  |
| If swallowed  | : Rinse mouth. Get medical attention if symptoms occur.                        |
| If inhaled  | : Get medical attention if symptoms occur.                                     |
| Protection of first-aiders                                  | : No special precautions are necessary for first aid responders.               |
| Notes to physician  | : No specific measures identified.   |
| Most important symptoms and effects, both acute and delayed | : See Section 11 for more detailed information on health effects and symptoms. |

#### Product AT USE DILUTION

|                         |   |
|-------------------------|---|
| In case of eye contact  | : Rinse with plenty of water.                           |
| In case of skin contact | : Rinse with plenty of water.                           |
| If swallowed            | : Rinse mouth. Get medical attention if symptoms occur. |
| If inhaled              | : Get medical attention if symptoms occur.              |

### SECTION 5. FIRE-FIGHTING MEASURES

#### Product AS SOLD

|  |  |
|--|--|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| Unsuitable extinguishing media                 | : None known.  |
| Specific hazards during fire fighting          | : Not flammable or combustible.  |
| Hazardous combustion products                  | : Decomposition products may include the following materials:<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulfur oxides<br>Oxides of phosphorus |
| Special protective equipment for fire-fighters | : Use personal protective equipment.   |
| Specific extinguishing                         | : Fire residues and contaminated fire extinguishing water must be  |

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

methods

disposed of in accordance with local regulations.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

##### Product AS SOLD

Personal precautions,  
protective equipment and  
emergency procedures

: Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: No special environmental precautions required.

Methods and materials for  
containment and cleaning up

: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

##### Product AT USE DILUTION

Personal precautions,  
protective equipment and  
emergency procedures

: Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: No special environmental precautions required.

Methods and materials for  
containment and cleaning up

: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

#### SECTION 7. HANDLING AND STORAGE

##### Product AS SOLD

Advice on safe handling

: Wash hands after handling. For personal protection see section 8.

Conditions for safe storage

: Keep out of reach of children. Store in suitable labeled containers.

Storage temperature

: 0 °C to 50 °C

##### Product AT USE DILUTION

Advice on safe handling

: Wash hands after handling. For personal protection see section 8.

Conditions for safe storage

: Keep out of reach of children. Store in suitable labeled containers.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Product AS SOLD

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

|                        |  |
|------------------------|--|
| Eye protection         | : No special protective equipment required.                            |
| Hand protection        | : No special protective equipment required.                            |
| Skin protection        | : No special protective equipment required.                            |
| Respiratory protection | : No personal respiratory protective equipment normally required.      |
| Hygiene measures       | : Wash hands before breaks and immediately after handling the product. |

#### Product AT USE DILUTION

|                      |  |
|----------------------|--|
| Engineering measures | : Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |
|----------------------|--|

#### Personal protective equipment

|                        |   |
|------------------------|---|
| Eye protection         | : No special protective equipment required.                       |
| Hand protection        | : No special protective equipment required.                       |
| Skin protection        | : No special protective equipment required.                       |
| Respiratory protection | : No personal respiratory protective equipment normally required. |

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|   | Product AS SOLD     | Product AT USE DILUTION |
|---|---------------------|-------------------------|
| Appearance                              | : liquid            | liquid                  |
| Color                                   | : dark green        | colorless               |
| Odor                                    | : odorless          | odorless                |
| pH                                      | : 3.17, 100 %       | 7.5 - 8.5               |
| Flash point                             | : Not applicable    |                         |
| Odor Threshold                          | : No data available |                         |
| Melting point/freezing point            | : No data available |                         |
| Initial boiling point and boiling range | : No data available |                         |
| Evaporation rate                        | : No data available |                         |
| Flammability (solid, gas)               | : No data available |                         |
| Upper explosion limit                   | : No data available |                         |
| Lower explosion limit                   | : No data available |                         |
| Vapor pressure                          | : No data available |                         |
| Relative vapor density                  | : No data available |                         |
| Relative density                        | : 1.007 - 1.027     |                         |
| Water solubility                        | : soluble           |                         |
| Solubility in other solvents            | : No data available |                         |
| Partition coefficient: n-octanol/water  | : No data available |                         |
| Autoignition temperature                | : No data available |                         |

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

Thermal decomposition : No data available  
Viscosity, kinematic : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available  
Molecular weight : No data available  
VOC : No data available

### SECTION 10. STABILITY AND REACTIVITY

#### Product AS SOLD

Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.  
Conditions to avoid : None known.  
Incompatible materials : None known.  
Hazardous decomposition products : Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides (NOx)  
Sulfur oxides  
Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

#### Product AS SOLD

Eyes : Health injuries are not known or expected under normal use.  
Skin : Health injuries are not known or expected under normal use.  
Ingestion : Health injuries are not known or expected under normal use.  
Inhalation : Health injuries are not known or expected under normal use.  
Chronic Exposure : Health injuries are not known or expected under normal use.

#### Product AT USE DILUTION

Eyes : Health injuries are not known or expected under normal use.  
Skin : Health injuries are not known or expected under normal use.  
Ingestion : Health injuries are not known or expected under normal use.  
Inhalation : Health injuries are not known or expected under normal use.  
Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

#### Product AS SOLD

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

#### Product AT USE DILUTION

Eye contact : No symptoms known or expected.  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

#### Toxicity

##### Product AS SOLD

##### Product

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Acute inhalation toxicity : No data available  
Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Skin corrosion/irritation : No data available  
Serious eye damage/eye irritation : No data available  
Respiratory or skin sensitization : No data available  
Carcinogenicity : No data available  
Reproductive effects : No data available  
Germ cell mutagenicity : No data available  
Teratogenicity : No data available  
STOT-single exposure : No data available  
STOT-repeated exposure : No data available  
Aspiration toxicity : No data available

### SECTION 12. ECOLOGICAL INFORMATION

#### Product AS SOLD

##### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### Product

Toxicity to fish : No data available  
Toxicity to daphnia and other aquatic invertebrates : No data available  
Toxicity to algae : No data available

#### Ingredients

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

Toxicity to algae : Sodium Xylenesulfonate  
96 h EC50: 230 mg/l

#### Persistence and degradability

##### Product AS SOLD

Biodegradable

##### Bioaccumulative potential

No data available

##### Mobility in soil

No data available

##### Other adverse effects

No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

##### Product AS SOLD

Disposal methods : Diluted product can be flushed to sanitary sewer.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

##### Product AT USE DILUTION

Disposal methods : Diluted product can be flushed to sanitary sewer.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

### SECTION 14. TRANSPORT INFORMATION

##### Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

##### Land transport (DOT)

Not dangerous goods

##### Sea transport (IMDG/IMO)

Not dangerous goods

### SECTION 15. REGULATORY INFORMATION

##### Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

## SAFETY DATA SHEET

### KEYSTONE LIQUID RINSE ADDITIVE

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

**United States TSCA Inventory :**  
On TSCA Inventory

**Canadian Domestic Substances List (DSL) :**  
All components of this product are on the Canadian DSL

**Australia Inventory of Chemical Substances (AICS) :**  
On the inventory, or in compliance with the inventory

**New Zealand Inventory of Chemical Substances :**  
not determined

**Japan. ENCS - Existing and New Chemical Substances Inventory :**  
not determined

**Japan. ISHL - Inventory of Chemical Substances (METI) :**  
not determined

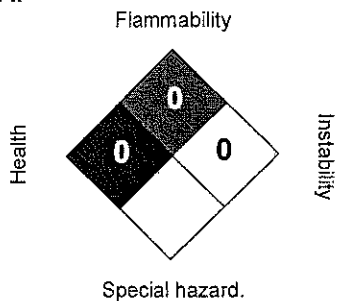
**Korea. Korean Existing Chemicals Inventory (KECI) :**  
On the inventory, or in compliance with the inventory

**Philippines Inventory of Chemicals and Chemical Substances (PICCS) :**  
On the inventory, or in compliance with the inventory

**China. Inventory of Existing Chemical Substances in China (IECSC) :**  
On the inventory, or in compliance with the inventory

### SECTION 16. OTHER INFORMATION

**Product AS SOLD**  
**NFPA:**



**HMIS III:**

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>0</b> |
| <b>FLAMMABILITY</b>    | <b>0</b> |
| <b>PHYSICAL HAZARD</b> | <b>0</b> |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

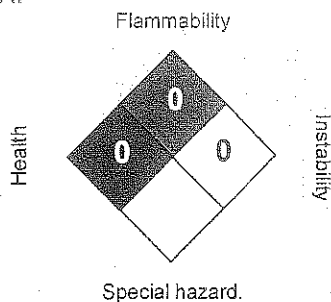


# SAFETY DATA SHEET

## KEYSTONE LIQUID RINSE ADDITIVE

### Product AT USE DILUTION

#### NFPA:



#### HMIS III:

|                 |   |
|-----------------|---|
| HEALTH          | 0 |
| FLAMMABILITY    | 0 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Issuing date : 07/12/2016  
Version : 1.0  
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



Issuing Date: 16-May-2017

Revision Date: 16-May-2017

Version 1

## 1. IDENTIFICATION

|  |   |
|--|---|
| Product Name                                     | Dawn Professional Manual Pot and Pan Detergent® - Made-From-Concentrate   |
| Product Code(s)                                  | 1-00  |
| Product Identifier                               | 91303911_DIL_PROF_NG  |
| Product Type:                                    | Finished Product - Professional Use Only  |
| Recommended Use                                  | Dish Care.  |
| Details of the supplier of the safety data sheet | Procter & Gamble Professional<br>2 P&G Plaza<br>Cincinnati, Ohio 45202<br><br>Procter & Gamble Inc.<br>P.O. Box 355, Station A<br>Toronto, ON M5W 1C5<br><br>1-800-332-7787 |
| E-mail Address                                   | pgsds.im@pg.com   |
| Emergency Telephone                              | Transportation (24 HR)<br>CHEMTREC - 1-800-424-9300<br>(U.S./ Canada) or 1-703-527-3887<br>Mexico toll free in country: 800-681-9531  |

## 2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.  
Not Classified.

|   |   |
|---|---|
| Hazard Statements                       | None  |
| Hazard pictograms                       | None  |
| Precautionary Statements                | None  |
| Precautionary Statements - Response     | None  |
| Precautionary Statements - Storage      | None  |
| Precautionary Statements - Disposal     | Dispose of contents/container in accordance with local regulation |
| Hazards not otherwise classified (HNOC) | None  |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

|  |   |
|--|---|
| Eye contact  | Rinse with plenty of water. Get medical attention immediately if irritation persists.                       |
| Skin contact                                       | Rinse with plenty of water. Get medical attention if irritation develops and persists.                      |
| Ingestion  | Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur. |
| Inhalation   | Move to fresh air. If symptoms persist, call a physician.   |
| Most important symptoms/effects, acute and delayed | None under normal use conditions.   |

#### Indication of immediate medical attention and special treatment needed, if necessary

|                    |                        |
|--------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|--------------------|------------------------|

### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| Suitable extinguishing media                   | Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.                           |
| Unsuitable Extinguishing Media                 | None.  |
| Special hazard                                 | None known.  |
| Special protective equipment for fire-fighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| Specific hazards arising from the chemical     | None.  |

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

|                                 |  |
|---------------------------------|--|
| Personal precautions            | Use personal protective equipment. Do not get in eyes, on skin, or on clothing.                                  |
| Advice for emergency responders | Use personal protective equipment as required.   |
| Environmental precautions       | Keep out of waterways<br>Do not discharge product into natural waters without pre-treatment or adequate dilution |

#### Methods and materials for containment and cleaning up

|                         |   |
|-------------------------|---|
| Methods for containment | Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if |
|-------------------------|---|

safe to do so.

**Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling**

Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible products**

None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

No exposure limits noted for ingredient(s).

**Exposure controls**

**Engineering Measures**

**Distribution, Workplace and Household Settings:**  
Ensure adequate ventilation

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

**Personal Protective Equipment**

**Eye Protection**

**Distribution, Workplace and Household Settings:**  
No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Use appropriate eye protection

**Hand Protection**

**Distribution, Workplace and Household Settings:**  
No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Protective gloves

**Skin and Body Protection**

**Distribution, Workplace and Household Settings:**  
No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Wear suitable protective clothing

**Respiratory Protection**

**Distribution, Workplace and Household Settings:**  
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):  
In case of inadequate ventilation wear respiratory protection

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                      |                          |
|----------------------|--------------------------|
| Physical State @20°C | Liquid                   |
| Appearance           | Clear                    |
| Odor                 | Scented                  |
| Odor threshold       | No information available |

| Property                      | Values                   | Note |
|-------------------------------|--------------------------|------|
| pH value                      | 8.67                     |      |
| Melting/freezing point        | No information available |      |
| Boiling point / boiling range | No information available |      |
| Flash point                   | 93 °C / 199.4 °F         |      |

Closed cup. Does not sustain combustion.  
Product is an aqueous solution containing  
<=24% alcohol and >=50% water.

|  |   |
|--|---|
| Evaporation rate                       | No information available  |
| Flammability (solid, gas)              | No information available  |
| Flammability Limits in Air             |   |
| Upper flammability limit               | No information available  |
| Lower Flammability Limit               | No information available  |
| Vapor pressure                         | No information available  |
| Vapor density                          | No information available  |
| Relative density                       | No information available  |
| Water solubility                       | No information available  |
| Partition coefficient: n-octanol/water | No information available  |
| Autoignition temperature               | No information available  |
| Decomposition temperature              | No information available  |
| Viscosity of Product                   | No information available  |
| VOC Content (%)                        | Products comply with US state and federal regulations for VOC content in consumer products. |

## 10. STABILITY AND REACTIVITY

|                                  |  |
|----------------------------------|--|
| Reactivity                       | None under normal use conditions.        |
| Stability                        | Stable under normal conditions.          |
| Hazardous polymerization         | Hazardous polymerization does not occur. |
| Hazardous Reactions              | None under normal processing.            |
| Conditions to Avoid              | None under normal processing.            |
| Materials to avoid               | None in particular.                      |
| Hazardous Decomposition Products | None under normal use conditions.        |

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Information on likely routes of exposure

|              |                  |
|--------------|------------------|
| Inhalation   | No known effect. |
| Skin contact | No known effect. |
| Ingestion    | No known effect. |
| Eye contact  | No known effect. |

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                                   |                  |
|-----------------------------------|------------------|
| Acute toxicity                    | No known effect. |
| Skin corrosion/irritation         | No known effect. |
| Serious eye damage/eye irritation | No known effect. |
| Skin sensitization                | No known effect. |
| Respiratory sensitization         | No known effect. |
| Germ cell mutagenicity            | No known effect. |
| Neurological Effects              | No known effect. |
| Reproductive toxicity             | No known effect. |
| Developmental toxicity            | No known effect. |
| Teratogenicity                    | No known effect. |
| STOT - single exposure            | No known effect. |
| STOT - repeated exposure          | No known effect. |
| Target Organ Effects              | No known effect. |
| Aspiration hazard                 | No known effect. |
| Carcinogenicity                   | No known effect. |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not expected to be hazardous to the environment.

|                               |                           |
|-------------------------------|---------------------------|
| Persistence and degradability | No information available. |
| Bioaccumulative potential     | No information available. |
| Mobility                      | No information available. |
| Other adverse effects         | No information available. |

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment

|  |   |
|--|---|
| Waste from Residues / Unused Products                    | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging                                   | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| California Hazardous Waste Codes (non-household setting) | 331   |

## 14. TRANSPORT INFORMATION

|             |               |
|-------------|---------------|
| <u>DOT</u>  | Not regulated |
| <u>IMDG</u> | Not regulated |
| <u>IATA</u> | Not regulated |

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):.

| Chemical Name    | CAS-No    | Hazardous<br>Substances RQs | Extremely Hazardous<br>Substances RQs | CERCLA/SARA 302<br>TPQ |
|------------------|-----------|-----------------------------|---------------------------------------|------------------------|
| Sodium hydroxide | 1310-73-2 | 1000 lb                     | -                                     |                        |

#### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

#### Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):.

| Chemical Name    | CAS-No    | CWA - Reportable<br>Quantities | CWA - Toxic<br>Pollutants | CWA - Priority<br>Pollutants | CWA - Hazardous<br>Substances |
|------------------|-----------|--------------------------------|---------------------------|------------------------------|-------------------------------|
| Sodium hydroxide | 1310-73-2 | 1000 lb                        | -                         | -                            | X                             |

#### California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

#### U.S. State Regulations (RTK)

This product does not contain any substances regulated by state right-to-know regulations.

### International Inventories

#### United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

#### Canada

This product is in compliance with CEPA for import by P&G.

#### Legend

United States Toxic Substances Control Act Section 8(b) Inventory (TSCA)

CEPA - Canadian Environmental Protection Act

## 16. OTHER INFORMATION

Issuing Date: 16-May-2017

Revision Date: 16-May-2017

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS





# SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product Name S.O.S® Steel Wool Soap Pads

### Other means of identification

Synonyms None

### Recommended use of the chemical and restrictions on use

Recommended use Cleaning and scrubbing tool for dishware, pots, and pans

Uses advised against No information available

### Details of the supplier of the safety data sheet

Supplier Address  
The Clorox Company  
1221 Broadway  
Oakland, CA 94612

Phone: 1-510-271-7000

### Emergency telephone number

Emergency Phone Numbers For Medical Emergencies, call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

**2. HAZARDS IDENTIFICATION****Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity

Category 1B

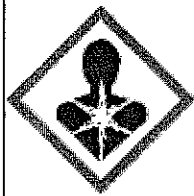
**GHS Label elements, including precautionary statements****Emergency Overview**

Signal word

Danger

**Hazard Statements**

May cause cancer (inhalation, ingestion).



**Appearance** Opaque, blue soap mixture impregnated into grey steel wool pads

**Physical State** Solid

**Odor** Soapy

**Precautionary Statements - Prevention**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves, eye protection, and face protection.  
Do not breathe dust.

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents in accordance with all applicable federal, state, and local regulations.

**Hazards not otherwise classified (HNOC)**

Not applicable.

**Unknown Toxicity**

40% of the mixture consists of ingredients of unknown toxicity.

**Other information**

Toxic to aquatic life.

**Interactions with Other Chemicals**

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name                | CAS-No     | Weight % | Trade Secret |
|------------------------------|------------|----------|--------------|
| Glycerin                     | 56-81-5    | 3 - 7    | *            |
| Sodium carbonate             | 497-19-8   | 1 - 5    | *            |
| Cocamide MEA                 | 68140-00-1 | 1 - 5    | *            |
| Sodium alkylbenzenesulfonate | 68081-81-2 | 0.5 - 2  | *            |
| Sodium nitrite               | 7632-00-0  | 0.5 - 2  | *            |
| Titanium dioxide             | 13463-67-7 | < 0.3    | *            |

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures****General Advice**

Show this safety data sheet to the doctor in attendance.

**Eye Contact**

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Skin Contact**

Rinse skin with plenty of water. If irritation persists, call a doctor.

**Inhalation**

Move to fresh air. If breathing problems develop, call a doctor.

**Ingestion**

Drink a glassful of water. Call a doctor or poison control center.

**Protection of First-aiders**

Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed****Most Important Symptoms and Effects**

May cause slight eye irritation. Inhalation of dry soap may irritate nose and throat.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Chemical

Not flammable. None known.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental Precautions** See Section 12 for ecological Information.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further spillage if safe to do so.

**Methods for Cleaning Up** Containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage** Store in a dry area.

**Incompatible Products** None known.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parametersExposure Guidelines

| Chemical Name                  | ACGIH TLV                      | OSHA PEL  | NIOSH IDLH                    |
|--------------------------------|--------------------------------|---|-------------------------------|
| Glycerin<br>56-81-5            | TWA: 10 mg/m <sup>3</sup> mist | TWA: 15 mg/m <sup>3</sup> mist, total particulate<br>TWA: 5 mg/m <sup>3</sup> mist, respirable fraction | -                             |
| Titanium dioxide<br>13463-67-7 | TWA: 10 mg/m <sup>3</sup>      | TWA - 15 mg/m <sup>3</sup> (total dust)   | IDLH - 5000 mg/m <sup>3</sup> |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures                      Showers  
   Eyewash stations  
   Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection                      Wear safety glasses.

Skin and Body Protection                      Wear rubber or neoprene gloves.

Respiratory Protection                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures                      Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

|                |  |                |                          |
|----------------|--|----------------|--------------------------|
| Physical State | Solid  |                |                          |
| Appearance     | Opaque soap mixture impregnated into steel wool pads | Odor           | Soapy                    |
| Color          | Blue soap - grey steel wool pads                     | Odor Threshold | No information available |

| Property                               | Values            | Remarks/ Method |
|--|-------------------|-----------------|
| pH                                     | No data available | None known      |
| Melting/freezing point                 | No data available | None known      |
| Boiling point / boiling range          | No data available | None known      |
| Flash Point                            | Not flammable     | None known      |
| Evaporation rate                       | No data available | None known      |
| Flammability (solid, gas)              | No data available | None known      |
| Flammability Limits in Air             |                   |                 |
| Upper flammability limit               | No data available | None known      |
| Lower flammability limit               | No data available | None known      |
| Vapor pressure                         | No data available | None known      |
| Vapor density                          | No data available | None known      |
| Bulk density                           | No data available | None known      |
| Water Solubility                       | Soap is soluble   | None known      |
| Solubility in other solvents           | No data available | None known      |
| Partition coefficient: n-octanol/water | No data available | None known      |
| Autoignition temperature               | No data available | None known      |
| Decomposition temperature              | No data available | None known      |
| Kinematic viscosity                    | No data available | None known      |
| Dynamic viscosity                      | No data available | None known      |
| Explosive Properties                   | Not explosive     |                 |
| Oxidizing Properties                   | No data available |                 |

### Other Information

|                            |                   |
|----------------------------|-------------------|
| Softening Point            | No data available |
| VOC Content (%)            | No data available |
| Particle Size              | No data available |
| Particle Size Distribution | No data available |

## 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known.

### Incompatible materials

None known.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

|              |   |
|--------------|---|
| Inhalation   | Inhalation of dry soap may irritate respiratory tract.                                |
| Eye Contact  | May cause temporary eye irritation.   |
| Skin Contact | Minor or no effects expected.   |
| Ingestion    | Ingestion may cause slight irritation to mucous membranes and gastrointestinal tract. |

#### Component Information

| Chemical Name                  | LD50 Oral      | LD50 Dermal       | LC50 Inhalation                   |
|--------------------------------|----------------|-------------------|-----------------------------------|
| Glycerin<br>56-81-5            | -              | >10 g/kg (Rabbit) | >570 mg/m <sup>3</sup> (Rat, 1 h) |
| Sodium carbonate<br>497-19-8   | 4.1 g/kg (Rat) | -                 | 2.3 g/m <sup>3</sup> (Rat, 2 h)   |
| Cocamide MEA<br>68140-00-1     | 3.3 g/kg (Rat) | -                 | -                                 |
| Sodium nitrite<br>7632-00-0    | 85 mg/kg (Rat) | -                 | >5.5 mg/L (Rat)                   |
| Titanium dioxide<br>13463-67-7 | >10g/kg (Rat)  | -                 | -                                 |

### Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes. Inhalation may irritate respiratory tract.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name                  | ACGIH | IARC     | NTP | OSHA |
|--------------------------------|-------|----------|-----|------|
| Sodium nitrite<br>7632-00-0    |       | Group 2A |     | X    |
| Titanium dioxide<br>13463-67-7 |       | Group 2B |     | X    |

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP: (National Toxicology Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

|                          |  |
|--------------------------|--|
| Reproductive Toxicity    | No information available.  |
| STOT - single exposure   | No information available.  |
| STOT - repeated exposure | No information available.  |
| Chronic Toxicity         | Contains a known or suspected carcinogen. May cause adverse effects on the bone marrow and blood-forming system. Sodium nitrite produced stomach tumors in female mice when fed exaggerated doses. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. |
| Target Organ Effects     | Respiratory system, gastrointestinal tract, kidney, blood, cardiovascular system.  |
| Aspiration Hazard        | Not an aspiration hazard.  |

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document  
No information available.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Toxic to aquatic organisms.

**Persistence and Degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

None known.

**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Dispose of in accordance with all applicable federal, state, and local regulations.

**Contaminated Packaging**

Dispose of in accordance with all applicable federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

|                        |                |
|------------------------|----------------|
| <b><u>DOT</u></b>      | Not regulated. |
| <b><u>TDG</u></b>      | Not regulated. |
| <b><u>ICAO</u></b>     | Not regulated. |
| <b><u>IATA</u></b>     | Not regulated. |
| <b><u>IMDG/IMO</u></b> | Not regulated. |



**15. REGULATORY INFORMATION****Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemical that is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical Name  | CAS No.   | Weight % | SARA 313 - Threshold Values % |
|----------------|-----------|----------|-------------------------------|
| Sodium nitrite | 7632-00-0 | 0.5 - 2  | 1.0                           |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | No  |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

**Clean Water Act**

This product contains the following substance that is a regulated pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name               | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-----------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium nitrite<br>7632-00-0 | 100 lb.                     |                        |                           | X                          |

**CERCLA**

This material, as supplied, contain the following substance regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

| Chemical Name               | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ  |
|-----------------------------|--------------------------|------------------------------------|---|
| Sodium nitrite<br>7632-00-0 | 100 lb                   |                                    | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ |

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemical.

| Chemical Name                  | California Proposition 65                                   |
|--------------------------------|---|
| Titanium dioxide<br>13463-67-7 | Carcinogen (airborne, unbound particles of respirable size) |

## U.S. State Right-to-Know Regulations

| Chemical Name               | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|-----------------------------|------------|---------------|--------------|--------------|----------|
| Glycerin<br>56-81-5         | X          | X             | X            | X            |          |
| Sodium nitrite<br>7632-00-0 | X          | X             | X            | X            |          |

## International Regulations

Canada

WHMIS Hazard Class

D2A - Very toxic material

D2B - Toxic material



## 16. OTHER INFORMATION

NFPA Health Hazard 0 Flammability 0 Instability 0 Physical and Chemical Hazards -  
HMIS Health Hazard 1\* Flammability 0 Physical Hazard 0 Personal Protection -

\*Indicates a chronic health hazard

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## General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet