SAFETY DATA SHEET

Section 1 - Identification

Product Identifier: CITRUS-KLEEN Non Butyl / Heavy Duty Cleaner Degreaser
Other means of identification: 1095
Recommended use: Alkaline cleaner.
Recommended restrictions: For commercial and industrial use only.

Manufacturer /Importer/Supplier/Distributor Information
Company Name: National Chemical Laboratories of PA, Inc.
Address: 401 N. 10th Street - Philadelphia, PA 19123
Telephone: 1 (215) 922-1200
Supplier Email: info@nclonline.com
Contact: CHEM-TEL
Emergency Phone: 1 (800) 255-3924

Section 2 - Hazard(s) Identification

SDS Hazards and Warnings are based on the undiluted product. Refer to diluted SDS for Ready-To-Use Hazards and Warnings.

- **Classification**
  - Physical Hazards: Not Classified
  - Health Hazards: Sensitization, skin
  - OSHA defined hazards: Not Classified.

- **Signal Word**: Danger
- **Hazard Statement**: Causes severe skin burns and eye damage. May cause an allergic skin reaction.
- **Precautionary statement**
  - Prevention: Do not breathe mist or vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. 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. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
  - Storage: Store locked up.
  - Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
  - Hazard(s) not otherwise classified (HNOC): None known.

Section 3 - Composition/Information on ingredients

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Ingredient Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td></td>
<td>1310-73-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Sodium dimethylbenzenesulfonate</td>
<td></td>
<td>1300-72-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Orange Oil</td>
<td></td>
<td>8008-57-9</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Citrus Terpenes</td>
<td></td>
<td>5989-27-5</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

Section 4 - First-aid Measures

- **Inhalation**: Move to fresh air. Get medical attention if irritation persists.
- **Skin contact**: Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center.
Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most Important symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

Section 5 - Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

Move containers from fire area if you can do it without risk.

General fire hazards

No unusual fire or explosion hazards noted.

Specific Methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures.

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

Section 7 - Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure control/personal protection

OCCUPATIONAL EXPOSURE GUIDES

US. Workplace environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>TWA</td>
<td>165.5 mg/m³, 30 ppm</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>TWA</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain
SAFETY DATA SHEET

Individual protection measures, such as personal protective equipment

- **Eye/face protection**: If use of product risks exposure to contact, wear safety glasses with side shields.
- **Skin protection**: Impervious gloves are recommended for prolonged use.
- **Hand protection**: Impervious gloves are recommended for prolonged use.
- **Respiratory protection**: In case of insufficient ventilation, wear suitable respiratory equipment.
- **Thermal hazards**: Wear appropriate thermal protective clothing, when necessary.
- **General hygiene considerations**: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**Section 9 - Physical and chemical properties**

- **Appearance**
  - **Physical state**: Liquid.
  - **Form**: Clear, thin liquid.
  - **Color**: Orange.
  - **Odor**: Orange.
  - **Odor threshold**: Not available.
  - **pH**: 13.3
  - **Melting point/freezing point**: Not available.
  - **Initial boiling point and boiling range**: 212 °F (100 °C)
  - **Flash point**: None to boiling.
  - **Evaporation rate**: Not available.
  - **Flammability (solid, gas)**: Not applicable.
  - **Upper/lower flammability or explosive limits**
    - **Flammability limit - lower (%)**: Not available.
    - **Flammability limit - upper (%)**: Not available.
    - **Explosive limit - lower (%)**: Not available.
    - **Explosive limit - upper (%)**: Not available.
  - **Vapor pressure**: Similar to water.
  - **Vapor density**: Similar to water.
  - **Relative density**: 1.03 ± 0.01
  - **Relative density temperature**: 75°F (23.9 °C)
  - **Solubilities (water)**: Completely soluble.
  - **Partition Coefficient**: n-octanol/water
    - **n-octanol/water**: Not available
  - **Auto-ignition temperature**: Not Available
  - **Decomposition temperature**: Not Available
  - **Viscosity**: < 10 cSt
  - **Viscosity Temperature**: 75 °F (23.9 °C)

**Section 10 - Stability and reactivity**

- **Reactivity**: Reacts violently with strong acids. This product may react with oxidizing agents.
- **Chemical stability**: Material is stable under normal conditions.
- **Possibility of hazardous reactions**: No dangerous reaction known under conditions of normal use.
- **Conditions to Avoid**: Do not mix with other chemicals. Contact with incompatible materials.
- **Incompatible materials**: Strong Acids, Acids, Oxidizing Agents.
- **Hazardous Decomposition Products**: No hazardous decomposition products are known.

**Section 11 - Toxicological information**

- **Inhalation**: May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
- **Skin contact**: Causes severe skin burns. May cause an allergic skin reaction.
- **Eye contact**: Causes serious eye damage.
- **Symptoms related to the physical, chemical and toxicological characteristics**: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
SAFETY DATA SHEET

Information on toxicological effects.

Acute toxicity
May cause an allergic skin reaction. May cause respiratory irritation.

<table>
<thead>
<tr>
<th>Components</th>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>5 g/kg</td>
</tr>
<tr>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Mouse</td>
<td>5600 - 6600 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>Other</td>
<td>LD50</td>
<td>Mouse</td>
<td>1.3 g/kg</td>
<td></td>
</tr>
<tr>
<td>Sodium dimethylbenzenesulfonate (CAS 1300-72-7)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rat</td>
<td>7200 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rabbit</td>
<td>500 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation Causes severe skin burns and eye damage.
Serious eye damage/eye irritation Causes serious eye damage.
Respiratory sensitization Not a respiratory sensitizer.
Skin sensitization May cause an allergic skin reaction.
Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>3</td>
<td>Not classifiable as to carcinogenicity to humans.</td>
</tr>
</tbody>
</table>

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure May cause respiratory irritation.
Specific target organ toxicity - repeated exposure Not classified.
Aspiration hazard Not an aspiration hazard.
Chronic effects Prolonged inhalation may be harmful.

Section 12 - Ecological Information

Ecotoxicity Harmful to aquatic life with long lasting effects.
Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential

<table>
<thead>
<tr>
<th>Components</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>4.232</td>
</tr>
</tbody>
</table>

Mobility in soil No data available.
Mobility in general No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13 - Disposal considerations

Disposal instructions Dispose in accordance with applicable federal, state, and local regulations.
Local disposal regulations Dispose of in accordance with local regulations.
Hazardous waste code Waste codes should be assigned by the user based on the application for which the product was used.
Waste from residues / unused products Dispose in accordance with all applicable regulations.
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport information

DOT

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>8</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
<tr>
<td>Special provisions</td>
<td>B2, IB2, N34, T7, TP2</td>
</tr>
<tr>
<td>Packaging exemption</td>
<td>154</td>
</tr>
<tr>
<td>Packaging non bulk</td>
<td>202</td>
</tr>
<tr>
<td>Packaging bulk</td>
<td>242</td>
</tr>
</tbody>
</table>
## SAFETY DATA SHEET

### IATA
- **UN number**: UN1824
- **UN proper shipping name**: SODIUM HYDROXIDE SOLUTION
- **Transport hazard class(es)**: 8
- **Packaging group**: II
- **Environmental hazards**: No.
- **ERG Code**: 8L
- **Special precautions for user**
  - Read safety instructions, SDS and emergency procedures before handling.

### IMDG
- **UN number**: UN1824
- **UN proper shipping name**: SODIUM HYDROXIDE SOLUTION
- **Transport hazard class(es)**: 8
- **Packaging group**: II
- **Environmental hazards**: No.
- **Marine pollutant**: No.
- **EmS**: F-A, S-B
- **Special precautions for user**
  - Read safety instructions, SDS and emergency procedures before handling.
- **Transportation in bulk according to Annex II of MARPOL 73/78 and IBC Code**: This substance/mixture is not intended to be transported in bulk.

### Section 15 - Regulatory Information

#### US federal regulations
- This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- All components are on the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D)
- Not regulated.

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
- Not listed

#### CERCLA Hazardous Substance List (40 CFR 302.4)
- **Components**
  - Sodium Hydroxide (CAS 1310-73-2)
- **Result**
  - LISTED

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)
- **Hazard Categories**
  - Immediate Hazard: Yes
  - Delayed Hazard: No
  - Fire Hazard: No
  - Pressure Hazard: No
  - Reactivity Hazard: No
- **SARA 302 Extremely hazardous substance**: Not listed.
- **SARA 311/312 Hazardous chemical**: Yes
- **SARA 313 (TRI reporting)**: Not regulated.

#### Other federal regulations
- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HSPs) List**: Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**: Not regulated.
- **Safe Drinking Water Act (SDWA)**: Not regulated.
- **Food and Drug Administration (FDA)**: Not regulated.

#### US state regulations
- **US.Massachusetts RTK - Substance List**: Components
  - Sodium Hydroxide (CAS 1310-73-2)
- **US.New Jersey Worker and Community Right-to-Know Act**: Components
  - Sodium Hydroxide (CAS 1310-73-2)
  - Citrus Terpenes (CAS 5989-27-5)
- **US.Pennsylvania RTK - Hazardous Substances**: Components
  - Sodium Hydroxide (CAS 1310-73-2)
- **US.Rhode Island RTK**: Components
  - Sodium Hydroxide (CAS 1310-73-2)
- **US - California Proposition 65**: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory Name</th>
<th>On Inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory or List Name</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
*A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 - Other information, including date of preparation or last version

<table>
<thead>
<tr>
<th>Revision date</th>
<th>1/17/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version #</td>
<td>02</td>
</tr>
</tbody>
</table>

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