Section 1 - Identification

Product Identifier: CHEM-EEZ Heavy Duty Cleaner / Degreaser RTU (1:3 - 1:16)
Other means of identification: 1001 (1-3, 1-16)
Recommended use: Alkaline cleaner.
Recommended restrictions: For Commercial and Industrial Use Only. User prepared Ready-To-Use solution. 1:3 to 1:16 water

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.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Hazards</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Health Hazards</td>
<td>Serious eye damage/eye irritation 1</td>
</tr>
<tr>
<td></td>
<td>Skin corrosion/irritation 1</td>
</tr>
</tbody>
</table>

OSHA defined hazards: Not Classified.
Label Elements:
Hazard Symbol: Danger

Precautionary statement:
Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep 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.

Storage: Store locked up.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): Not classified.

Section 3 - Composition/Information on ingredients

Composition Comments: Components not listed are either non-hazardous or are below reportable limits.

Mixture Hazardous Components: Nonylphenol, ethoxylated, 2-Butoxyethanol, Sodium Hydroxide

Signal Word: Danger
Hazard Statement: Causes severe skin burns and eye damage.

Prevention:
If respiratory irritation or distress occurs, remove victim to fresh air. If breathing is difficult, give oxygen. If breathing stops, apply artificial respiration. CONSULT A PHYSICIAN.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Composition Comments: Components not listed are either non-hazardous or are below reportable limits.

Section 4 - First-aid Measures

Inhalation: If respiratory irritation or distress occurs, remove victim to fresh air. If breathing is difficult, give oxygen. If breathing stops, apply artificial respiration. CONSULT A PHYSICIAN.

Skin contact: Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention. Wash contaminated clothing before reuse.
SAFETY DATA SHEET

Eye contact
Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Check and remove contact lenses. Continue to rinse for at least 10 minutes.

Ingestion
Rinse mouth thoroughly with water. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration. Call a physician or poison control center immediately.

Most important symptoms /effects, acute and delayed
Causes skin and eye burns.

Indication of immediate medical attention and special treatment
Treat symptomatically.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5 - Fire-fighting measures

Suitable extinguishing media
RTU product will not support combustion. Water fog. Foam. 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. Use water spray to keep fire-exposed containers cool.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures.
Isolate area. Keep unnecessary personnel away. Use personal protection as recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up
Small Spills: Absorb spillage with suitable absorbent material.
Large Spills: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. After removal flush contaminated area thoroughly with water.

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

Section 7 - Handling and storage

Precautions for safe handling
Do not get in eyes, on skin, or on clothing. Do not breathe mist or vapor. Do not taste or swallow. Use with adequate ventilation. Wash thoroughly after handling. Use Personal Protective Equipment recommended in section 8 of the SDS.

Conditions for safe storage, including any incompatibilities
Store away from incompatible materials. Keep container closed.

Section 8 - Exposure control/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>240 mg/m³, 50 ppm</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>24 mg/m³, 5 ppm</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

US. ACGIH. BEIs. Biological Exposure Indices

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinate Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>200 mg/g</td>
<td>Butoxyacetic acid (BAA), with hydrolysis</td>
<td>*</td>
</tr>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
<td></td>
<td>Creatinine in urine</td>
<td></td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Exposure guidelines
Use personal protective equipment as required. Keep working clothes separately.

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants
Components
2-Butoxyethanol (CAS 111-76-2) Can be absorbed though the skin.

US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).
Components
2-Butoxyethanol (CAS 111-76-2) Skin designation aologies.
SAFETY DATA SHEET

Section 9 - Physical and chemical properties

**Appearance**
- Physical state: Liquid.
- Form: Clear liquid.
- Color: Pale Purple.
- Odor: Sassafras.
- Odor threshold: Not available.
- pH: 12.5 - 13.4
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: 212 °F (100 °C)
- Flash point: > 212.0 °F (> 100.0 °C)
- 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: 1.01 ± 0.01
- Relative density temperature: 75 °F (23.9 °C)
- Solubilities (water): 100 % Soluble.
- Partition Coefficient n-octanol/water: Not available
- Auto-ignition temperature: Not Available
- Decomposition temperature: Not Available
- Viscosity: < 10 cP
- Viscosity Temperature: 75 °F (23.9 °C)

Section 10 - Stability and reactivity

Reactivity: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability: Stable at normal conditions.
Possibility of hazardous reactions: Hazardous polymerization does not occur.
Conditions to Avoid: Contact with incompatible materials.
SAFETY DATA SHEET

Incompatible materials
Strong oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide.

Section 11 - Toxicological information

Information on likely routes of exposure

Ingestion
May be harmful if swallowed.

Inhalation
May cause burns in mucous membranes, throat, esophagus and stomach.

Skin contact
Causes skin burns.

Eye contact
Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics
Causes skin and eye burns. Symptoms may be delayed.

Information on toxicological effects.

Acute toxicity
May be harmful if swallowed.

<table>
<thead>
<tr>
<th>Component</th>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Inhalation</td>
<td>LC50</td>
<td>Mouse</td>
<td>700 ppm, 7 hours</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Inhalation</td>
<td>LC50</td>
<td>Rat</td>
<td>450 mg/l, 4 hrs</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Guinea pig</td>
<td>1.2 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Mouse</td>
<td>1519 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rabbit</td>
<td>0.32 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rat</td>
<td>560 mg/kg</td>
</tr>
<tr>
<td>4290 mg/kg, bw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonylphenol, ethoxylated (CAS 9016-45-9)</td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Mouse</td>
<td>4290 mg/kg</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 skin burns. Causes serious eye damage.

Serious eye damage/ eye irritation
Causes serious eye damage.

Respiratory sensitization
Not classified.

Skin sensitization
Not available.

Germ cell mutagenicity
Not classified.

Carcinogenicity
Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Component | Result | Comment
---|---|---
2-Butoxyethanol (CAS 111-76-2) | 3 | Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
Not classified.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not classified.

Section 12 - Ecological Information

Ecotoxicity
The product contains a substance which is toxic to aquatic organisms.

Component(s)
Nonylphenol, ethoxylated, 9016-45-9

Aquatic

<table>
<thead>
<tr>
<th>Component</th>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>Acute</td>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>65 mg/l, 48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
<td>12.2 mg/l, 48 hours</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td></td>
<td></td>
<td>Bluegill (leptomis macrochirus)</td>
<td>1 - 1.8 mg/l 96 hours</td>
</tr>
</tbody>
</table>

Partition coefficient n-octanol / water log (Kow)

<table>
<thead>
<tr>
<th>Component</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Mobility in soil
Not available.

Mobility in general
The product is water soluble and may spread in water systems.

Other adverse effects
None known.
SAFETY DATA SHEET

Disposal instructions
Dispose in accordance with applicable federal, state, and local regulations.

Local disposal regulations
Dispose 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

General Information
This product is customer diluted for on site use only. No transportation information is anticipated or provided. The regulatory transport classification of the product without consideration to dilution strength, packaging, quantity, or modal restrictions and exceptions can not be anticipated. It is the user’s responsibility to determine the appropriate packaging and modal requirements and/or limitations for the product quantity being shipped.

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.

TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D) Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4) Components: Sodium Hydroxide (CAS 1310-73-2) LISTED, 2-Butoxyethanol (CAS 111-76-2) LISTED.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories
SARA 302 Extremely hazardous substance: No, 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), 2-Butoxyethanol (CAS 111-76-2).

US.New Jersey Worker and Community Right-to-Know Act Components: Sodium Hydroxide (CAS 1310-73-2), 2-Butoxyethanol (CAS 111-76-2).


US.Rhode Island RTK Components: Sodium Hydroxide (CAS 1310-73-2), 2-Butoxyethanol (CAS 111-76-2).

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>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

CHEM-EEZ Heavy Duty Cleaner / Degreaser RTU (1:3 - 1:16) 1001 (1-3, 1-16) Page 5 of 6
<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory Details</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</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).

**Disclaimer**

The information contained herein was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond the manufacturer's control, it is the user’s responsibility both to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense arising from the product's improper use. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this SDS. Various government agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this SDS. The user should review these regulations to ensure full compliance.

**Revision date**: 1/17/2018

**Version #**: 02

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

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