SAFETY DATA SHEET

Section 1 - Identification

Product Identifier
ASTRO-CHEM Industrial Degreaser Cleaner RTU (1:32, 1:100)
Other means of identification
1020 (1-32, 1-100)
Recommended use
Alkaline cleaner.
Recommended restrictions
For commercial and industrial use only. User prepared Ready-To-Use solution. 1:32 to 1:100 in 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

OSHA defined hazards
Not Classified.

Label Elements

Physical Hazards
Not Classified
Health Hazards
Serious eye damage/eye irritation
OSHA defined hazards
Not Classified.

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

Category
Classification
Not Classified
Health Hazards
Serious eye damage/eye irritation
2A

Signal Word
Warning

Hazard Statement
Causes serious eye irritation.

Precautionary statement

Prevention
Wash thoroughly after handling. Wear eye/face protection.
Response
If on skin: Wash with water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists get medical advice/attention. Take off contaminated clothing and wash before reuse. Store away from incompatible materials.
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

Mixture

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

Ingredient Name
Sodium Hydroxide
CAS # 1310-73-2
% < 0.2

Section 4 - First-aid Measures

Inhalation
Move to fresh air. Get medical attention if irritation develops and persists.

Skin contact
Wash with water. Get medical attention if irritation develops and persists.

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. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if irritation develops and persists.

Most Important symptoms /effects, acute and delayed
Serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
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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.

General fire hazards
This product is not flammable or combustible.

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

US. OSHA Table 2-1 Limits for Air Contaminants (29 CFR 1910.1000)

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

US. ACGIH Threshold Limit Values

<table>
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<tbody>
<tr>
<td>Sodium Hydroxide (CAS 1310-73-2)</td>
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<td>2 mg/m³</td>
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US. NIOSH: Pocket Guide to Chemical Hazards

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

Appropriate engineering controls
Provide adequate ventilation and minimize the risk of inhalation of vapors and mists. Provide easy access to water supply and eye wash facilities. Use personal protective equipment as required. Keep working clothes separately.

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

Hand protection
Impervious gloves are recommended for prolonged use.

Other
If use of product risk exposure to contact, wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment. No personal respiratory protective equipment normally required.

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.

Section 9 - Physical and chemical properties

Appearance

Physical state
Liquid.

Form
Clear Liquid.

Color
Pale Green.

Odor
Citrus.
Odor threshold: Not available.

pH: 11.2 - 12.0

Initial boiling point and boiling range: 212 °F (100 °C)

Flash point: > 212.0 °F (> 100.0 °C)

Relative density: 1.00 ± 0.01

Vapor pressure: Similar to water.

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.

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.

Incompatible materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide.

**Section 11 - Toxicological information**

Information on likely routes of exposure

- Ingestion: Expected to be a low ingestion hazard.
- Inhalation: No adverse effects due to inhalation are expected.
- Skin contact: Prolonged skin contact may cause irritation.
- Eye contact: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics:

- Serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms may be delayed.

Information on toxicological effects:

- Acute toxicity: Not expected to be hazardous.
- Skin corrosion/irritation: Prolonged skin contact may cause irritation.
- Serious eye damage/eye irritation: Causes serious eye irritation.
- Respiratory sensitization: This product is not expected to cause respiratory sensitization.
- Skin sensitization: This product is not expected to cause skin sensitization.
- Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive toxicity: Not classified.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not classified.

Chronic effects: Not expected to be hazardous.

**Section 12 - Ecological Information**

Ecotoxicity: The product is highly diluted and is not classified as environmentally hazardous. However, this does not exclude the
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Persistence and degradability
The product is expected to be biodegradable.

Bioaccumulative potential
Not known.

Mobility in soil
Not available.

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

Other adverse effects
None known.

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

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 cannot 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.

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)

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

Country(s) or region
Inventory Name
On Inventory (yes/no) *

Australia
Australian Inventory of Chemical Substances (AICS)
No

Canada
Domestic Substances List (DSL)
No

Canada
Non-Domestic Substances List (NDSL)
No
SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Country</th>
<th>List Name</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
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<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
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<tr>
<td>United States</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
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</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>Version #</th>
<th>Disclaimer</th>
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<td>1/17/2018</td>
<td>02</td>
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