NATIONAL CHEMICAL LABORATORIES, INC.

SAFETY DATA SHEET

Section 1 - Identification

Product Identifier
NCL-2 Rapid Action Stone Crystallizer

Other means of identification
2529

Recommended use
Buffing compound.

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.

<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>Acute toxicity, oral 4</td>
</tr>
<tr>
<td></td>
<td>Serious eye damage/eye irritation 1</td>
</tr>
<tr>
<td></td>
<td>Skin corrosion/irritation 1</td>
</tr>
<tr>
<td></td>
<td>Specific target organ toxicity, single exposure 3</td>
</tr>
<tr>
<td></td>
<td>TARGET ORGAN: respiratory tract irritation</td>
</tr>
</tbody>
</table>

OSHA defined hazards
None known.

Hazard Symbol

Signal Word
Danger

Hazard Statement
Causes severe skin burns and eye damage. May cause respiratory irritation. Harmful if swallowed.

Precautionary statement

Prevention
Do not breathe mist or vapor. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

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. 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.

Section 3 - Composition/Information on ingredients

Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium fluosilicate</td>
<td>16949-65-8</td>
<td>20 - 30</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

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 assistance if you feel unwell.
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Eye contact
attention if irritation persists. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. 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. Get medical attention immediately.

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.

Section 5 - Fire-fighting measures

Suitable extinguishing media
Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog.

Unsuitable extinguishing media
Not available.

Specific hazards arising from the chemical
None known.

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 SPILLAGE: Absorb spillage with suitable absorbent material. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. After removal flush contaminated area thoroughly with water. 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 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>Magnesium fluosilicate</td>
<td>TWA</td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid (CAS 7664-38-2)</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-2 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
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<tr>
<td>Magnesium fluosilicate</td>
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</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid (CAS 7664-38-2)</td>
<td>STEL</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid (CAS 7664-38-2)</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Magnesium fluosilicate (CAS 16949-65-8)</td>
<td>TWA</td>
<td>2.5 mg/m³</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
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<td>TWA</td>
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</tr>
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<td>Phosphoric Acid (CAS 7664-38-2)</td>
<td>STEL</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid (CAS 7664-38-2)</td>
<td>REL</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

US. ACGIH. BEIs. Biological Exposure Indices

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium fluosilicate (CAS 16949-65-8)</td>
<td>3 mg/l</td>
</tr>
<tr>
<td>Magnesium fluosilicate (CAS 16949-65-8)</td>
<td>2 mg/l</td>
</tr>
</tbody>
</table>

US. ACGIH. BEIs. Biological Exposure Indices

<table>
<thead>
<tr>
<th>Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Specimen</td>
</tr>
<tr>
<td>Urine</td>
</tr>
<tr>
<td>Urine</td>
</tr>
</tbody>
</table>

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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.

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

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.

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
  Use a respirator when local exhaust or ventilation is not adequate to keep exposures below the OEL. In a confined space a supplied respirator may be 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: Liquid.
- Physical state: Liquid.
- Form: Opaque.
- Color: Pink.
- Odor: Mild, bland.
- Odor threshold: Not available.
- pH: 1.2
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: 212 °F (100 °C)
- Flash point: Not available.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not available.
- 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: 1.16 ± 0.01
- Relative density temperature: 75 °F (23.9 °C)
- Solubilities (water): 10 - 99 % Soluble.
- Partition Coefficient n-octanol/water: Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Viscosity: < 50 cP
- Viscosity Temperature: 75 °F (23.9 °C)

Section 10 - Stability and reactivity

- Reactivity: Not available.
- 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.

Section 11 - Toxicological information

Information on likely routes of exposure
- Ingestion: May cause burns of the gastrointestinal tract if swallowed.
- Inhalation: Irritating to respiratory system.
- Skin contact: Causes skin burns.
- Eye contact: Causes serious eye damage.
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Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects.

Acute toxicity

<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>MgF2</td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rat</td>
<td>291 mg/kg</td>
</tr>
<tr>
<td>H3PO4</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td>2740 mg/kg</td>
</tr>
<tr>
<td>H3PO4</td>
<td>Acute</td>
<td>Inhalation</td>
<td>LC50</td>
<td>Rat</td>
<td>850 mg/m³, 4 Hours, 25.5 mg/m³</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Serious eye damage/eye irritation

Respiratory sensitization

Skin sensitization

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated exposure

Aspiration hazard

Chronic effects

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

Section 12 - Ecological Information

Ecotoxicity

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Component(s)

Phosphoric Acid, 7664-38-2

Aquatic

<table>
<thead>
<tr>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Fish</td>
<td>LC50</td>
<td>Mosquitofish (Gambusia)</td>
<td>138 mg/l, 96 h</td>
</tr>
</tbody>
</table>

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 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>Proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Special precautions for user</th>
<th>Packaging exemption</th>
<th>Packaging non bulk</th>
<th>Packaging bulk</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1805</td>
<td>PHOSPHORIC ACID SOLUTION</td>
<td>8</td>
<td>III</td>
<td>Not available.</td>
<td>A7, IB3, N34, T4, TP1</td>
<td>154</td>
<td>203</td>
</tr>
</tbody>
</table>
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IATA
- UN number: UN1805
- UN proper shipping name: PHOSPHORIC ACID SOLUTION
- Transport hazard class(es): 8
- Packaging group: III
- Environmental hazards: No
- ERG Code: 8L
- Special precautions for user: Not available.
- Other Information: Not available.

IMDG
- UN number: UN1805
- UN proper shipping name: PHOSPHORIC ACID SOLUTION
- Transport hazard class(es): 8
- Packaging group: III
- Environmental hazards: No
- Marine pollutant: No
- Special precautions for user: Not available.
- 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.
- TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D) Not regulated.
- CERCLA Hazardous Substance List (40 CFR 302.4)
  - Components: Phosphoric Acid (CAS 7664-38-2)
  - 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
  - Phosphoric Acid (CAS 7664-38-2)
- US. New Jersey Worker and Community Right-to-Know Act Components
  - Phosphoric Acid (CAS 7664-38-2)
  - Magnesium fluosilicate (CAS 16949-65-8)
- US. Pennsylvania RTK - Hazardous Substances Components
  - Phosphoric Acid (CAS 7664-38-2)
  - Magnesium fluosilicate (CAS 16949-65-8)
- US. Rhode Island RTK Components
  - Phosphoric Acid (CAS 7664-38-2)

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) Yes
- Canada Domestic Substances List (DSL) Yes
- Canada Non-Domestic Substances List (NDSL) No
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<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory/List</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>Yes</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

Revision date: 1/17/2018
Version #: 02
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.