1. Identification

Product Name: KRDKUT 1-GL 4PK METAL CLEAN ETCH
Product Identifier: ME014
Recommended Use: Metal Clean & Etch/Phosphoric Acid
Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA
Preparer: Regulatory Department
Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
1% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS
Acute Toxicity, Inhalation, category 4 H332 Harmful if inhaled.
Skin Corrosion, category 1B H314 Causes severe skin burns and eye damage.

GHS LABEL PRECAUTIONARY STATEMENTS
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 If exposed immediately call a POISON CENTER or doctor/physician.
P321 For specific treatment see label
P405 Store locked up.
P501 Dispose of contents/container in accordance with local, regional and national regulations.

GHS SDS PRECAUTIONARY STATEMENTS
3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Wt. % Range</th>
<th>GHS Symbols</th>
<th>GHS Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>25-50</td>
<td>GHS05-GHS06</td>
<td>H312-314-331</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Remove contaminated clothing. Wash skin with soap and water. Get medical attention immediately. Wash clothing separately before reuse. Destroy contaminated shoes.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. DO NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, rinse mouth with water. If feeling unwell, get medical attention. Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention. If swallowed, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of water or milk. Call a physician or poison control center immediately. Swallowing more than an ounce will cause significant harm. Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred. Containers can rupture and release highly toxic material if exposed to heat. Substance is non-combustible but reacts with many metals to form explosive hydrogen gas. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers. Avoid runoff into sewers and waterways. Provide ventilation and approach spill from upwind using proper personal protective equipment as indicated in Section 8. Carefully neutralize spill with sodium bicarbonate (NaHCO₃). Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use.

Advice on Safe Handling of Combustible Dust: No Information
8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight % Less Than</th>
<th>ACGIH TLV-TWA</th>
<th>ACGIH TLV-STEL</th>
<th>OSHA PEL-TWA</th>
<th>OSHA PEL-CEILING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>35.0</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots and chemical safety goggles plus a face shield. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.200</td>
</tr>
<tr>
<td>Freeze Point, °C</td>
<td>30</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Decomposition Temp., °C</td>
<td>N.D.</td>
</tr>
<tr>
<td>Boiling Range, °C</td>
<td>100 - 158</td>
</tr>
<tr>
<td>Flammability</td>
<td>Does not Support Combustion</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Slower than Ether</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Heavier than Air</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N.E.</td>
</tr>
<tr>
<td>pH</td>
<td>1.0 - 3.0</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N.D.</td>
</tr>
<tr>
<td>Partition Coefficient, n-octanol/ water</td>
<td>N.D.</td>
</tr>
<tr>
<td>Explosive Limits, vol%</td>
<td>N.A. - N.A.</td>
</tr>
<tr>
<td>Flash Point, °C</td>
<td>94</td>
</tr>
<tr>
<td>Auto-ignition Temp., °C</td>
<td>N.D.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N.D.</td>
</tr>
</tbody>
</table>

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid contact with metals.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies. Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces.

HAZARDOUS DECOMPOSITION: When heated to decomposition, it emits acrid smoke and irritating fumes. Decomposition produces hydrogen chloride, chlorine and hydrogen gases.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Irritating, and may injure eye tissue if not removed promptly. Substance causes severe eye irritation. Injury may be permanent.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance is corrosive. Causes severe skin burns. Severely irritating; may cause permanent skin damage. Corrosive; causes skin burning. Low hazard for usual industrial handling or commercial handling by trained personnel.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

EFFECTS OF OVEREXPOSURE - INGESTION: Corrosive and may cause severe and permanent damage to mouth, throat and
stomach. Substance may be harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Repeated exposure to low concentrations of HCl vapor or mist may cause bleeding of nose and gums.

**PRINCIPAL ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Contact

**ECOTOCY TOXICITY VALUES**
The acute effects of this product have not been tested. Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Vapor LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2</td>
<td>Phosphoric Acid</td>
<td>2600 mg/kg Rat</td>
<td>1260 mg/kg Rabbit</td>
<td>5.337 mg/L Rabbit</td>
</tr>
</tbody>
</table>

N.E. - Not Established

**12. Ecological Information**

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

**13. Disposal Information**

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. RCRA Hazardous Waste: This material, when discarded or disposed of, could be a hazardous waste according to federal regulations (40 CFR 261) due to the characteristic of corrosivity (D002). Check state and local regulations for disposal requirements. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate.

**14. Transport Information**

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>Domestic (USDOT)</th>
<th>International (IMDG)</th>
<th>Air (IATA)</th>
<th>TDG (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.A.</td>
<td>1805</td>
<td>1805</td>
<td>N.A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>Products in Limited Quantities</th>
<th>Phosphoric Acid Solution</th>
<th>Phosphoric Acid Solution</th>
<th>Products in Limited Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class:</td>
<td>N.A.</td>
<td>8</td>
<td>8</td>
<td>N.A.</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>N.A.</td>
<td>III</td>
<td>III</td>
<td>N.A.</td>
</tr>
<tr>
<td>Limited Quantity:</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**15. Regulatory Information**

**U.S. Federal Regulations:**

**CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Toxicity (any route of exposure), Skin Corrosion or Irritation

**Sara Section 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
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</tbody>
</table>

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.
16. Other Information

HMIS RATINGS
Health: 3* Flammability: 0 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS
Health: 3 Flammability: 0 Instability 0

Volatile Organic Compounds 0 g/L

SDS REVISION DATE: 9/12/2019

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
  02 - Hazard Identification
  15 - Regulatory Information
  16 - Other Information
Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.