1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE C-IC 33 AERO ACID DEOXIDIZER known as TURCO ALUMIPREP 33
IDH number: 594416

Product type: Acidic Cleaner for Industrial Application
Restriction of Use: None identified

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER: COMBUSTIBLE LIQUID. MAY BE CORROSIVE TO METALS. HARMFUL IF SWALLOWED OR IN CONTACT WITH SKIN. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE AN ALLERGIC SKIN REACTION.

HAZARD CLASS | HAZARD CATEGORY
--- | ---
FLAMMABLE LIQUID | 4
CORROSIVE TO METALS | 1
ACUTE TOXICITY ORAL | 4
ACUTE TOXICITY DERMAL | 4
SKIN CORROSION | 1B
SERIOUS EYE DAMAGE | 1
SKIN SENSITIZATION | 1

PICTOGRAM(S)

Precautionary Statements

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep only in original container. Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

Response: If SWALLOWED: Immediately call poison control or physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish. Absorb spillage to prevent material damage.
Storage: Store in a well-ventilated place. Keep cool. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.


See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>CAS Number</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>10 - 20</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>7664-39-3</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

**Inhalation:** If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

**Skin contact:** Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Seek immediate medical attention.

**Eye contact:** In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

**Ingestion:** Get immediate medical attention. Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Symptoms:** See Section 11.

**Notes to physician:** Treatment of hypocalcemia associated with corrosive fluoride compounds exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water spray (fog), foam, dry chemical or carbon dioxide. Use media appropriate for surrounding material.

**Special firefighting procedures:** Wear full protective clothing. Wear self-contained breathing apparatus.

**Unusual fire or explosion hazards:** Fire and explosion hazards are moderate when this product is exposed to heat or flame. Vapors are heavier than air and may travel along floor to an ignition source.
6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not inhale vapors and fumes. Keep away from heat, spark and flame.

Storage: For safe storage, store between 40 °F (4.4 °C) and 100 °F (37.8 °C). Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers. Thaw and mix thoroughly if frozen.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>3 mg/m³ STEL 1 mg/m³ TWA</td>
<td>1 mg/m³ PEL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>20 ppm TWA</td>
<td>50 ppm (240 mg/m³) PEL (SKIN)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>2 ppm Ceiling (as F) 0.5 ppm TWA (as F) (SKIN) (as F)</td>
<td>2.5 mg/m³ PEL (as F) 3 ppm TWA</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering controls: Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

Respiratory protection: If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Eye/face protection: Wear chemical goggles; face shield (if splashing is possible).

Skin protection: Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended. Gloves should be tested to determine suitability for prolonged contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Solvent</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH:</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling point/range:</td>
<td>&gt; 200 °F (&gt; 93.3 °C)</td>
</tr>
<tr>
<td>Melting point/ range:</td>
<td>15 °F (-9.4 °C)</td>
</tr>
</tbody>
</table>
Specific gravity: 1.12 - 1.16 at 15.6 °C (60.08 °F)
Vapor density: Not determined
Flash point: 62.8 °C (145.04 °F) Tagliabue closed cup
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not applicable
Flammability: Not applicable
Evaporation rate: Not available.
Solubility in water: Complete
Partition coefficient (n-octanol/water): Not determined
VOC content: 14 % (by weight) (estimated)
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions.
Hazardous reactions: Will not occur.
Hazardous decomposition products: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. May liberate hydrogen fluoride.
Incompatible materials: This product may react with strong oxidizing agents.
Reactivity: Not available.
Conditions to avoid: Keep away from heat, ignition sources and incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes
Potential Health Effects/Symptoms

**Inhalation:** Mists, vapors or liquid may cause severe irritation or burns. Inhalation of mists or vapors may produce upper airway edema, wheezing, pulmonary edema, pneumonitis and respiratory failure.

**Skin contact:** Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns. Following skin exposure to this product, the sensation of irritation or pain may be delayed. A component in this product may be harmful or fatal if absorbed through the skin.

**Eye contact:** This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

**Ingestion:** This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. May cause dizziness, incoordination, headache, nausea, and vomiting. Product contains a glycol ether which caused blood disorders in rabbits.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>LD50s and LC50s</th>
<th>Immediate and Delayed Health Effects</th>
</tr>
</thead>
</table>
| Phosphoric acid        | Oral LD50 (Rat) = 1,530 mg/kg  
                         | Dermal LD50 (Rabbit) = 2,740 mg/kg  | Irritant, Corrosive                   |
| 2-Butoxyethanol        | Oral LD50 (Rat) = 560 mg/kg       
                         | Oral LD50 (Mouse) = 1.2 g/kg         
                         | Oral LD50 (Rabbit) = 0.32 g/kg       
                         | Oral LD50 (Rat) = 1.48 g/kg          
                         | Oral LD50 (Mouse) = 1,519 mg/kg      
                         | Dermal LD50 (Rabbit) = 400 mg/kg     
                         | Inhalation LC50 (Rat, 4 h) = 486 ppm 
                         | Inhalation LC50 (Rat, 4 h) = 450 ppm | Blood, Central nervous system, Irritant, 
                         |                             |                                        | Kidney, Liver                        |
| Hydrogen fluoride      | None             | Allergen, Blood, Bone Marrow, Cardiac, 
                         |                             |                                        | Central nervous system, Corrosive, Irritant, 
                         |                             |                                        | Kidney, Liver, Lung, Muscle, Nervous 
                         |                             |                                        | System, Respiratory, Teeth            |

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecological information: Not available.
13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal. This product contains a alkylphenol or nonylphenol ethoxylate.

Hazardous waste number: This product, if discarded directly, would be a characteristic RCRA corrosive waste (D002). This product contains a component or components identified as hazardous under 40 CFR 261.24. U134: Hydrogen fluoride

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Hydrofluoric acid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class or division:</td>
<td>8</td>
</tr>
<tr>
<td>Identification number:</td>
<td>UN 3264</td>
</tr>
<tr>
<td>Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>DOT Hazardous Substance(s):</td>
<td>Hydrofluoric acid, Phosphoric acid</td>
</tr>
</tbody>
</table>

International Air Transportation (ICAO/IATA)

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Hydrofluoric acid)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>DOT Hazardous Substance(s):</td>
<td>Hydrofluoric acid, Phosphoric acid</td>
</tr>
</tbody>
</table>

Water Transportation (IMO/IMDG)

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid, Hydrofluoric acid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class or division:</td>
<td>8</td>
</tr>
<tr>
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<td>UN 3264</td>
</tr>
<tr>
<td>Packing group:</td>
<td>II</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: Hydrogen fluoride (CAS# 7664-39-3).

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire

CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). 2-Butoxymethanol (CAS# 111-76-2).

CERCLA Reportable quantity: Phosphoric acid (CAS# 7664-38-2) 5,000 lbs. (2,270 kg) Hydrogen fluoride (CAS# 7664-39-3) 100 lbs. (45.4 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Mark Mau, Manager, Regulatory Affairs
Issue date: 05/22/2017

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