1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: ABD - Aqueous-Based Degreaser
Revision Date: 10/22/10
MSDS Number: ABD
Product Code: 16-ABD, 32-ABD, 128-ABD, 5-ABD & 55-ABD

Manufacturer: The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125

(216) 901-5800
(216) 901-5801 fax
www.blasterproducts.com

2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>85-95</td>
<td>none established</td>
</tr>
<tr>
<td>proprietary</td>
<td>Ethoxylated alcohol</td>
<td>2-3</td>
<td>none established</td>
</tr>
<tr>
<td>proprietary</td>
<td>Quaternary amine compound</td>
<td>2-3</td>
<td>none established</td>
</tr>
<tr>
<td>proprietary</td>
<td>Diluent</td>
<td>4-10</td>
<td>OSHA TWA: 5 mg/m3 8 hour</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH TWA: 10 mg/m3 8 hour</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>1-2</td>
<td>none established</td>
</tr>
<tr>
<td>7758-29-4</td>
<td>Sodium Tripolyphosphate</td>
<td>1-2</td>
<td>OSHA TWA: 5 mg/m3</td>
</tr>
<tr>
<td>64-02-8</td>
<td>NaEDTA</td>
<td>1-2</td>
<td>none established</td>
</tr>
</tbody>
</table>

3 HAZARDS IDENTIFICATION

Route of Entry: Eyes, skin, inhalation, ingestion
Target Organs: 
Inhalation: Inhalation of spray mist likely to cause irritation to the respiratory tract. May cause headache, dizziness, nausea, vomiting or narcosis in confined or poorly ventilated areas.
Skin Contact: Contact with skin is likely to cause irritation and dryness. May cause dermatitis or aggravate an existing condition
Eye Contact: Likely to cause immediate or delayed irritation. Irritation will show as redness and/or swelling of the eyes.
Ingestion: Ingestion may cause irritation to the mouth, esophagus and stomach. May cause abdominal pain, vomiting, dizziness and headaches.
## FIRST AID MEASURES

<table>
<thead>
<tr>
<th>Inhalation:</th>
<th>Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Continue to monitor. Get medical attention.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact:</td>
<td>Remove contaminated clothing immediately! Wash skin with soap and water. If irritation develops, seek medical attention.</td>
</tr>
<tr>
<td>Eye Contact:</td>
<td>Flush eye(s) with water for 15 minutes. Get medical attention. If eye irritation persists, obtain medical treatment.</td>
</tr>
<tr>
<td>Ingestion:</td>
<td>If conscious, immediately give the person two large glasses of water. Do not induce vomiting. Get medical attention immediately.</td>
</tr>
</tbody>
</table>

## FIRE FIGHTING MEASURES

This is a water-based product and will not readily burn. Presents no unusual fire hazards.

## ACCIDENTAL RELEASE MEASURES

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface. Dispose of fluid, absorbents and containers in accordance with federal, state and local regulations.

## HANDLING AND STORAGE

<table>
<thead>
<tr>
<th>Handling Precautions:</th>
<th>Use in accordance with good industrial workplace practices. Avoid unnecessary contact. Wash thoroughly after handling. Use with good ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Requirements:</td>
<td>Keep containers tightly closed and in a cool well-ventilated place. Always store this material in closed labeled containers. Store away from acids.</td>
</tr>
</tbody>
</table>

## EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Engineering Controls:</th>
<th>Eye wash stations and emergency showers should be immediately available. Eyes and Face: Standard safety glasses with splash shields typically offer adequate protection. Where excessive splashing or spraying is possible, a face shield should be used. Do not wear contacts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective Equipment:</td>
<td>Skin and clothing: Excessive contact should be avoided. Nitrile gloves, boots and aprons will provide adequate protection when contact cannot be avoided. Remove and wash any contaminated clothing immediately. Wash thoroughly after handling.</td>
</tr>
<tr>
<td></td>
<td>Respiratory: Good general ventilation should be sufficient to control airborne levels. Maintain airborne concentrations below OSHA established exposure limits of ingredients in Section 2. Use NIOSH approved respirator if ventilation is not adequate enough to maintain levels below these limits.</td>
</tr>
</tbody>
</table>

| Exposure Guidelines/Other: | The Blaster Corporation takes no responsibility for determining what measures are required for personal protection in any specific application. This information should be used with discretion. |
9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Sudsy straw colored
Physical State: Liquid
Odor: strong detergent-like
pH: >12
Boiling Point: >212 F
Freezing/Melting Pt.: <32 F
Vapor Pressure: Not Determined
Vapor Density: Not Determined

Heat Value: Not Determined
VOC: zero
Evap. Rate: Not Determined
Bulk Density: Not Determined
Octanol: Not Determined
Molecular Weight: Not Determined
Particle Size: Not Applicable
Softening Point: Not Applicable
Viscosity: Not Determined
Percent Volatile: Not Determined
Sat. Vap. Concentrat.: Not Determined
Molecular Formula: Not Determined

Spec Grav./Density: 1.02-1.03

10 STABILITY AND REACTIVITY

Stability: This product is stable.
Conditions to avoid: Extreme temperatures.
Materials to avoid (incompatability): Avoid contact with acids.
Hazardous Decomposition products: Smoke, Fumes, Oxides of Carbon and Nitrogen
Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
<th>Route</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>1378 mg/kg</td>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50</td>
<td>5000 mg/kg</td>
<td>Dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td>quaternary amine compound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>580 mg/kg</td>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>Diluent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>&gt;3800 mg/kg</td>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50</td>
<td>4090 mg/kg</td>
<td>Oral</td>
<td>Mouse</td>
</tr>
<tr>
<td>LD50</td>
<td>7750 mg/kg</td>
<td>Oral</td>
<td>Guinea pig</td>
</tr>
<tr>
<td>LD50</td>
<td>&gt;10000 mg/kg</td>
<td>Dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Diluent</td>
<td>INHALATION LC50</td>
<td>&gt;0.57 mg/l</td>
<td>Rat</td>
</tr>
</tbody>
</table>
**Sodium Tripolyphosphate, Anhydrous**

**Acute Eye Irritation:**
Toxicological Information and Interpretation:
eye - eye irritation, rabbit. Irritating. Unwashed.

**Acute Skin Irritation:**
Toxicological Information and Interpretation:
skin - skin irritation, rabbit. Moderately irritating.

**Acute Dermal Toxicity:**
Toxicological Information and Interpretation:
LD50 - lethal dose 50% of test species, > 4640 mg/kg, rabbit.

**Acute Respiratory Irritation:**
No test data found for product.

**Acute Inhalation Toxicity:**
No test data found for product.

**Acute Oral Toxicity:**
Toxicological Information and Interpretation:
LD50 - lethal dose 50% of test species, 3900 mg/kg, rat.

**Chronic Toxicity:**
This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

**Sodium Metasilicate:**

**Acute Data:** This material has not been tested for primary eye irritation potential. However, on the basis of its high degree of alkalinity, it is regarded as corrosive to the eyes. When this material was tested for skin corrosion/irritation potential according to OECD Guidelines Section 404, it produced dermal corrosion. The acute oral toxicity of this product has not been tested. When sodium silicates were tested on a 100% solids basis, their single dose acute oral LD50 in rats ranged from 1500 - 3200 mk/kg. The acute oral lethality resulted from nonspecific causes.

**Subchronic Data:** In a study of rats fed sodium silicate in drinking water for three month, at 200, 600 and 1800 ppm, changes were reported in the blood chemistry of some animals, but no specific changes to the organs of the animals due to sodium silicate administration were observed in any of the dosages groups. Another study reported adverse effects to the kidneys of dogs fed sodium silicate in their diet at 2.4g/kg/day for 4 weeks, whereas rats fed the same dosages did not develop any treatment-related effects. Decreased numbers of births and survival to weaning was reported for rats fed sodium silicate in their drinking water at 600 and 1200 ppm.

**Special Studies:** Sodium silicate was nonmutagenic to the bacterium E. Coli when tested in a mutagenicity bioassay. There are no known reports of carcinogenicity of sodium silicates. Frequent ingestion over extended periods of time of gram quantities of silicates is associated with the formation of kidney stones and other siliceous urinary calculi in humans. Sodium silicate is not listed by IARC, NTP or OSHA as a carcinogen.

**NaEDTA (Tetrasodium EDTA):**

**Inhalation - Acute:** The acute LC50 for this product is not available. There were no clinical signs of toxicity when rats were exposed for 8 hours to an atmosphere enriched with NaEDTA.

**Inhalation - Chronic:** No known effects.

**Skin - Acute:** Dermal toxicity for this product is not available. A solution containing 40% NaEDTA was not irritating to rabbit skin when applied undiluted for 4 hours.

**Skin - Chronic:** Repeated or prolonged contact may cause irritation.

**Eyes:** A 40% solution of NaEDTA was classified as moderately irritating to rabbit eyes. Corneal opacity, iritis and moderate to severe conjunctivitis were reported.

**Ingestion - Acute:** The oral LD50 is greater than 2000 mg/kg (rat) for a 40% solution of NaEDTA.

**Ingestion - Chronic:** No other known effects for the mixture. Chronic ingestion of NTA and its trisodium salt has been shown to cause kidney toxicity.

**Sensitization:** Not determined.

**Carcinogenicity:** This product does not contain any carcinogens or potential carcinogens as listed by IARC, NTP, ACGIH or OSHA.
Mutagenicity: NaEDTA is not mutagenic in a series of tests, including the Ames Assay, the Chromosomal Aberration and the Mouse Lymphoma.

Cytotoxicity: NaEDTA did not damage normal rat kidney cells at doses of 0.1 to 20mL. Long-term exposure to 0.1 to 5.0 mL was not toxic and did not inhibit DNA synthesis.

Reproductive Toxicity: No data available.

Teratogenicity / Embryotoxicity: EDTA and its sodium salts have been reported, in some studies, to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation. Exposure having no effect on the mother should have no effect on the fetus. NaEDTA is not teratogenic under conditions of the test. Pregnant female rats were administered 1374 mg/kg/day on gestation days 7 to 14 in half dose, twice daily. Clinical signs of maternal toxicity included diarrhea, reduced weight gain and depressed activity.

Other effects: NaEDTA administered to mice in drinking water at a dose of 25mM, caused a reduction of calcium in bone, liver and muscle. Zinc was reduced in kidneys, muscle and liver. Magnesium was reduced in bones and liver, but was increased in the kidneys.

Target organs: Eyes.

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ECOLOGICAL INFORMATION

Ecological information on this product as a mixture has not been determined.

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DISPOSAL CONSIDERATIONS

Used or unused product should be disposed of in accordance with local, state and federal regulations.

Empty containers may contain residual contents. They should be handled with the same precautions as the product.

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TRANSPORT INFORMATION

Dept. of Transportation (DOT):

Proper shipping name: Corrosive Liquid, basic, inorganic, n.o.s. (Sodium Metasilicate)
Hazard class: 8
UN #: 3266
Packing Group: III

This product may be packaged to meet the definitions set forth in CFR 49 part 173.150c as a "consumer commodity."
Allowing for certain exceptions (173.156) for domestic surface shipments.

Please contact The Blaster Corporation for clarification or questions regarding proper shipping information.
REGULATORY INFORMATION

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements.

Superfund Amendments Reauthorization Act (SARA TITLE) III: Hazard Category For Section 311/312: Acute Health
Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None
Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not contain any components that are regulated under California Proposition 65.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Consumer Product Safety Act General Conformity Certification: This product was evaluated by The Blaster Corporation, and is certified to be in compliance with the provisions of the Consumer Product Safety Act, the Federal Hazardous Substances Act and the Poison Prevention Packaging Act, as applicable. This product was manufactured at the location listed in Section 1 of this MSDS. The date of manufacture is stamped on the product container. No testing is required to certify compliance with the above.

OTHER INFORMATION

Manufacturer's Disclaimer:
To the best of our knowledge, the information contained herein is accurate. However, neither The Blaster Corporation nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exists.

HMIS Ratings
Health: 2
Fire: 0
Reactivity 0

END OF MSDS DOCUMENT