Safety Data Sheet
Product: 781 Aluminum & Stainless Cleaner

Part 1: Product and Company Identification
SDS No: 781B
Product Use Description: Cleaning and removal of grease, oil, dirt and white, chalky aluminum oxides before welding. Removes weld residue and discoloration after welding.
Trade Name: 781 Aluminum Cleaner and Stainless Cleaner
Manufacturers Name: Dynaflux, Inc.
241 Brown Farm Rd.
Cartersville, GA 30120 U.S.A.

Part 2: Composition / Information on ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Concentration (Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-22</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Ammonium Biflouride</td>
<td>1341-49-7</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Part 3: Hazards Identification

Emergency Overview
Appearance: Green Liquid       Physical State: Liquid       Odor: Acrid

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity-Inhalation (mists)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1 Sub-category B</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Hazard Statements: toxic if inhaled. Causes skin burns and eye damage.

Signal Word: DANGER

Precautionary Statements – Prevention
H290: May be corrosive to metals.
H301: Toxic if swallowed
H311: Toxic in contact with skin
H331: Toxic if inhaled
Use on a well-ventilated area.
Do not breathe fume/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protection clothing/eye protection/face protection.
Precautionary Statements – Response
Immediately call poison center or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present. Continue rinsing. Call poison center or doctor/physician.
IF ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call doctor/physician.

Precautionary Statements – Storage
Store in a well-ventilated environment. Keep container tightly closed.

Precautionary Statements – Disposal
Dispose of contents/container according to State, Federal and Providential regulations.

Part 4: First Aid Measures
General Advice
Immediately call poison center or doctor/physician.

Eye Contact
Hold eyelids apart, initiate and maintain gentle and continuous irrigation for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call poison center or doctor/physician. **GHS Category 1**

Skin Contact
IF ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. **GHS Category 1C**

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call doctor/physician. **GHS Category 3**

Ingestion
IF SWALLOWED: rinse mouth. DO NOT INDUCE VOMITING. Immediately call poison center or doctor/physician. **GHS Category 3**

Most important symptoms and effects
**Symptoms:** Causes skin burns and eye damage. Inhalation causes irritation and burning to nose and throat. Ingestion may cause severe burns to mouth, throat or stomach.

**Notes to physician:** Treat symptomatically

Part 5: Fire Fighting Measures

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific Hazards
Material is corrosive.

**Hazardous Combustion Products:** Carbon monoxide. Carbon dioxide (CO2), Hydrogen fluoride.
Part 6: Accidental Release Measures

Personal precautions
Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Use chemically protective clothing.

Environmental precautions
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological information. See Section 13: DISPOSAL CONSIDERATIONS

Methods for cleaning up
Approach suspected leak areas with caution. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in labeled container for disposal according to local, state and federal regulations. Neutralize with a dilute solution of sodium carbonate. Place in appropriate chemical waste container.

Part 7: Handling and Storage

Handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Follow all product label instructions. Use only as directed. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling.

Storage
Store in a well-ventilated environment. Store in a cool, dry place, out of direct sunlight. Do not freeze, less than or equal to 32°F or heat above 110°F. Keep container tightly closed. Keep out of the reach of children. Keep/store only in original container.

Part 8: Exposure Controls / Personal Protection

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid 7664-38-2</td>
<td>STEL: 3mg/m3</td>
<td>TWA: 1mg/m3 (vacated)</td>
<td>TWA: 1mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA: 1mg/m3</td>
<td>TWA: 1 mg/m3</td>
<td>IDLH: 1000 mg/m3</td>
</tr>
<tr>
<td>Ammonium biflouride 1341-497</td>
<td>TWA: 2.5 mg(F)/m3</td>
<td>TWA: 2.5 mg(F)/m3</td>
<td>TWA: 2.5 mg/m3 F</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls
Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Chemical anti-splash safety goggles.
Skin and Body Protection
Chemical resistant, impermeable gloves. Wear appropriate chemical resistant clothing.

Respiratory protection
Ensure adequate ventilation, especially in confined areas. Ventilate by opening all doors and windows. If exposure above the TLV or EL require a NIOSH approved respirator equipped for the exposure or suitable respiratory protection per 29 CFR 1910.134 is required.

General Hygiene Considerations
Wash contaminated clothing before reuse. Work hygienic practices: Wash hands thoroughly before handling foodstuffs, liquids or tobacco products. Use common sense and care around chemicals. Never mix this product with other chemicals.

Part 9: Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Yellow liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>pH Melting Point/Freezing Point</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>212°F</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>1 (Water=1)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Nonflammable</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1)</td>
<td>1.079</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Complete</td>
</tr>
<tr>
<td>VOC %</td>
<td>1%</td>
</tr>
</tbody>
</table>

Part 10: Stability and Reactivity

Reactivity
Not reactive under normal conditions.

Stability
Stable under recommended storage conditions.

Conditions to avoid
Keep out of reach of children

Materials to avoid
Strong oxidizers.

Hazardous Decomposition
Carbon monoxide, Carbon dioxide (CO2)
Part 11. Toxicological Information
Information on likely routes of exposure

Eye Contact
Can cause eye damage.

Skin Contact
Causes skin burns.

Inhalation
Toxic if inhaled

Ingestion
May be harmful if swallowed

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>(=1530 \text{ mg/kg (Rat)})</td>
<td>(=2730 \text{ mg/kg (Rabbit)})</td>
<td>(&gt;850\text{mg/m}^3) (Rat) 1h</td>
</tr>
<tr>
<td>Ammonium biflouride</td>
<td>No LD50 / LC50 information found relating to normal routes of occupational exposure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Part 12. Ecological Information

Ecotoxicity effects
Aquatic toxicity
Toxic to aquatic organisms, May cause pH changes in aqueous ecological systems

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>3-3.5: 96 h Gambusia affinis mg/L LC50</td>
<td>4.6: 12 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>7664-38-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium biflouride</td>
<td>This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1341-497</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bioaccumulation
Not determined

Mobility
Not determined
Part 13. Disposal Considerations

Waste disposal methods
Must not be disposed of together with general refuse. Do not allow product to reach sewage system.
Dispose of container and unused contents in accordance with federal, state and local regulations.

Part 14. Transport Information

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN/ID No. NA1760
Proper Shipping Name Compounds, cleaning liquid (Phosphoric acid)
Hazard Class 8
Packing Group II

IMDG
UN/ID No. NA1760
Proper Shipping Name Corrosive liquid (Phosphoric acid)
Hazard Class 8
Packing Group II
Marine Pollutant this material may meet the definition of a marine pollutant

Part 15. Regulatory Information

TSCA Listed
TSCA United States Toxic Substances Control Act Section 8(b) inventory

US Federal Regulations

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Sara 311/312 hazard Categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

Continued
### Hazardous Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid 7664-38-2</td>
<td>5000 lb.</td>
<td></td>
<td>RQ 5000 lb. final RQ</td>
</tr>
<tr>
<td>Ammonium biflouride 1341-497</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ</td>
</tr>
</tbody>
</table>

#### NFPA

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

#### HMIS

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>C</td>
</tr>
</tbody>
</table>

### Part 16. Other Information

This information is based on our present knowledge; however, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Dynaflux, Inc.
241 Brown Farm Rd.
Cartersville, GA 30120
Prepared by: E. Schaffstall

### Disclaimer of Expressed and implied Warranties:

The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date of the I Safety Data sheet was prepared. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices as specified on the label copy.