1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Flash 55 High Performance Emulsifier
Product Type: Fast acting stripper

Manufacturer Address:
Amano Pioneer Eclipse Corporation
P.O. Box 909
1 Eclipse Road
Sparta, NC 28675

Contact Information:
Telephone: 1-336-372-8080
Email: msds@pioneer-eclipse.com
Internet: www.pioneer-eclipse.com

FOR CHEMICAL EMERGENCY:
Spill, Leak, Fire, Exposure or Accident. Call CHEMTREC Day or Night.
Within USA and Canada 1-800-424-9300. Outside USA and Canada +1-703-527-3887 (collect calls accepted)

2: HAZARDS IDENTIFICATION

OSHA status: Hazardous- Corrosive

Potential Health Effects:
Eye Contact: Causes eye burns. May cause permanent damage.
Skin Contact: Causes skin burns. May cause permanent damage.
Inhalation: May be harmful if inhaled. May cause irritation and corrosive effects to nose, throat and respiratory tract.
Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>CAS Number</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>111-76-2</td>
<td>30 - 60</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>141-43-5</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

4: FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eye with plenty of water for at least 15 minutes. (If easy to do, remove contact lenses, if worn). Seek medical attention.
Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention.
Inhalation: If breathing is difficult. Remove subject to fresh air. Seek medical attention immediately.
Ingestion: Call a physician or poison control center. Do not induce vomiting. Seek medical advice immediately.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, CO₂ dry chemical, alcohol-type or universal type foams
Special Fire Fighting Procedures: Corrosive liquid. (See Sections 8 and 10.) Do not spray a solid stream of water or foam directly in hot liquid. This may cause frothing. Fire fighters should wear NIOSH approved breathing apparatus.
Hazardous Combustible Products: None known
Unusual Fire and Explosion Hazards: Materials can splatter above 100°C / 212°F

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Put on appropriate personal protective equipment (see Section 8). Keep spectators away. Floors may be slippery; use care to avoid falling.
Environmental Precautions: Keep spills and cleaning run-off out of sewers and open bodies of water.
Containment and Clean-Up

Small Spills: Absorb spill with inert material (e.g. sand, earth) and dispose of as waste material in accordance with local, state and federal regulations.
Large Spills: Neutralize spill area. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for disposal.
FLASH 55 HIGH PERFORMANCE EMULSIFIER

Waste Disposal: Landfill or incinerate the contaminated solids and diking material in accordance with local state and federal regulations concerning disposal of hazardous materials. Non-salvageable liquid should be drummed and turned over to a licensed hazardous waste disposal facility.

7: HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only in well-ventilated areas. Avoid breathing vapors or mists. Remove and wash contaminated clothing and footwear before re-use.

Storage: Storage temperature (Max. 60ºC/140ºF - Min. 1ºC/34ºF)

Other information: Keep from freezing. Keep container sealed when not in use. Keep out of reach of children.

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>TWA</th>
<th>STEL</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>111-76-2</td>
<td>20 ppm (BEI)</td>
<td>N/L</td>
<td>50 ppm (skin)</td>
<td>N/L</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>141-43-5</td>
<td>3 ppm</td>
<td>6 ppm</td>
<td>3 ppm</td>
<td>N/L</td>
</tr>
</tbody>
</table>

Engineering Controls: Ensure adequate general ventilation.

Personal Protective Equipment (PPE)

Eye/Face Protection: Chemical splash goggles (ANSI Z87.1-1989 or approved equivalent)

Skin Protection: Rubber gloves recommended. If major exposure is possible, wear suitable protective clothing such as rubber boots, apron, etc.

Respiratory Protection: None required when permissible airborne concentrations are not exceeded. In an emergency, use approved positive pressure self-contained breathing device.

9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear blue, liquid  Odor: floral fragrance

Odor Threshold: N/E  pH: 11.5

Freezing Point: 32ºF / 0ºC  Boiling Point: 212ºF / 100ºC

Flash Point: > 200ºF / > 93ºC (ASTM D56)  Evaporation Rate: less than water

Viscosity: < 10 cps @ 68ºF  Upper/Lower Flammability limits: N/A

Vapor Pressure: less than water  Vapor Density: greater than air

Relative Density: 7.98 lb/gal @ 68ºF / 0.96 kg/l @ 20ºC  Solubility: 100% soluble in water

Partition Coefficient (n-octanol/water): N/E  Auto Ignition temperature: N/E

Decomposition Temperature: N/E  VOC: 54.5% (as supplied), 10.5% (1:4), 5.8% (1:8)

10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Hazardous reactions: Adding water directly to the product may generate heat and cause product to splash. To avoid adverse reaction, always add product to water, do not add water to product.

Conditions to avoid: Improper order of dilution

Incompatible materials: Strong acids and oxidizing agents

Hazardous decomposition products: carbon monoxide, carbon dioxide and nitrogen oxides

11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Not determined on product.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Oral-Rat (mg/kg)</th>
<th>LD50 Dermal - Rabbit (mg/kg)</th>
<th>LC50 Inhalation-Rat (mg/l)</th>
<th>Carcinogenicity</th>
<th>CA - Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>470</td>
<td>220</td>
<td>2.21 (4 hr)</td>
<td>IARC 3</td>
<td>N/L</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>1720</td>
<td>1025</td>
<td>N/A</td>
<td>N/L</td>
<td>N/L</td>
</tr>
</tbody>
</table>

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LOCAL EFFECTS

Skin contact: Corrosive. Can cause skin burns.
Eye contact: Corrosive. Can cause eye burns.
Sensitization: None expected
Chronic effects: None expected

SPECIFIC EFFECTS

Carcinogenicity: None known
Reproductive effects: None known
Teratogenicity: None known
Mutagenicity: None known

12: ECOLOGICAL INFORMATION

Ecological data not available.

13: DISPOSAL CONSIDERATIONS

Disposal of this material should be in accordance with local, regional, and national regulations.

14: TRANSPORT INFORMATION

Proper Shipping Name: Corrosive liquid, n.o.s. (ethanolamine)
Hazard Class: 8
UN Number: UN1760
Packing Group: II

Package Volumes < 1L are shipped under Limited Quantity Exemption; as permitted by hazard class and quantity limits.

15: REGULATORY INFORMATION

U.S. Regulations/Reporting:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>SARA 302/304</th>
<th>SARA 313</th>
<th>CERCLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>111-76-2</td>
<td>N/L</td>
<td>1.00%</td>
<td>N/L</td>
</tr>
</tbody>
</table>

State Right to Know Status:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>MA - RTK</th>
<th>NJ - RTK</th>
<th>PA - RTK</th>
<th>RI - RTK</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>111-76-2</td>
<td>present</td>
<td>present</td>
<td>present</td>
<td>present</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>141-43-5</td>
<td>present</td>
<td>present</td>
<td>present</td>
<td>present</td>
</tr>
</tbody>
</table>

Canada Regulations/Reporting

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Hazard Symbol: 

WHMIS hazard class: E

Ingredients required for disclosure:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>111-76-2</td>
<td>&gt; 1%</td>
<td>B3, D1A, D2B</td>
</tr>
<tr>
<td>monoethanolamine</td>
<td>141-43-5</td>
<td>&gt; 1%</td>
<td>B3, E</td>
</tr>
</tbody>
</table>

16: OTHER INFORMATION

Product intended for commercial and industrial use only.

Abbreviations Used:

N/E - Not Established
N/A - Not applicable
N/L - Not Listed
IARC 3- Unclassifiable as to Carcinogenicity in Humans.

Revision Details:

05/30/2013- Correction to flash point & warnings.

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This MSDS has been provided to you in accordance with the OSHA Hazard Communication Standard (29CFR1910.1200).

**IMPORTANT SAFETY INFORMATION**DO NOT DISCARD**PLEASE ROUTE TO COMPANY SAFETY OFFICER**