I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name:** LaserShot Spray & Wipe Degreaser

**Product Use:** Water based degreaser concentrate

**Product Number:** 323

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

**Contact Information:**
Telephone: +1 336 372 8080
Internet: www.pioneer-eclipse.com
E-mail: msds@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

This preparation has been classified and labeled according to 1999/45/EC.

**EU Classification:** Classified as Corrosive

**Hazard symbol:**

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**Risk phrases:**
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R35- Causes severe burns.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.

**Safety phrases:**
S1/2- Keep locked up and out of the reach of children.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of water.
S37/39- Wear suitable gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>EC No.</th>
<th>Weight %</th>
<th>CAS No.</th>
<th>Symbol</th>
<th>R phrases *</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>203-905-0</td>
<td>35-40</td>
<td>111-76-2</td>
<td>Xn (Harmful)</td>
<td>R20/21/22, R36/38</td>
</tr>
<tr>
<td>ethanolamine</td>
<td>205-483-3</td>
<td>10-15</td>
<td>141-43-5</td>
<td>Xn (Harmful) C (Corrosive)</td>
<td>R20/21/22, R34</td>
</tr>
<tr>
<td>fragrance blend</td>
<td>Not listed</td>
<td>1-5</td>
<td>Not listed</td>
<td>Xi (Irritant)</td>
<td>R36/37/38, R43</td>
</tr>
</tbody>
</table>

*See section 16 for the full text of R phrases

4. FIRST AID MEASURES

**EFFECTS AND SYMPTOMS**

**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.

**Skin contact:** Harmful in contact with skin. May cause permanent damage.

**Eye contact:** Harmful in contact with eyes. May cause permanent damage.

**FIRST AID MEASURES**

**Inhalation:** If breathing is difficult: Remove to fresh air. Seek medical attention immediately.

**Ingestion:** Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Skin contact:** Immediately wash off with plenty of water for at least 15 minutes. (Remove any contaminated clothing and shoes.) Seek medical attention immediately.

**Eye contact:** Immediately wash out with water for at least 15 minutes. (If easy to do, remove contact lenses, if worn.) Seek medical attention immediately.
5. FIRE FIGHTING MEASURES

Extinguishing media: Dry chemical, water spray, foam, carbon dioxide
Hazardous combustion products: None
Unusual fire and explosion hazards: Materials can splatter above 100°C/212°F.
Special fire fighting procedures: Corrosive material (See Sections 8 and 10).

6. ACCIDENTAL RELEASE MEASURES

Put on appropriate personal protective equipment (see Section 8).
Small spills: Absorb spill on inert material (e.g. sand, earth) and dispose of as waste material in accordance with national and regional provisions.
Large spills: Keep spectators away. Floors may be slippery; use care to avoid falling. Neutralize spill area. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and diking material to separate containers for disposal. Keep spills and cleaning runoff out of sewers and open bodies of water.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only in well-ventilated areas. Avoid breathing vapours or spray mists. Remove and wash contaminated clothing and footwear before re-use.
Storage: Storage temperature (Max. 60°C/140°F) (Min. 1°C/34°F). Keep from freezing, product may coagulate. Keep container sealed when not in use. Keep out of reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure limit values:

<table>
<thead>
<tr>
<th>Component Name:</th>
<th>Source / Date</th>
<th>Value / Units</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>US (ACGIH) / 2005</td>
<td>20 PPM</td>
<td>8 HRS / TWA</td>
</tr>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>US (OSHA) / 2005</td>
<td>50 PPM SKIN</td>
<td>8 HRS / PEL</td>
</tr>
<tr>
<td>ethylene glycol monobutyl ether</td>
<td>EU (2000/39/EC)</td>
<td>20 ppm SKIN</td>
<td>8 HRS/TWA</td>
</tr>
<tr>
<td>ethanolamine</td>
<td>US (ACGIH) / 2005</td>
<td>3 ppm</td>
<td>8 HRS / TWA</td>
</tr>
<tr>
<td>ethanolamine</td>
<td>US (ACGIH) / 2005</td>
<td>6 ppm</td>
<td>8 HRS / STEL</td>
</tr>
<tr>
<td>ethanolamine</td>
<td>EU (2006/15/EC)</td>
<td>1 ppm SKIN</td>
<td>8 HRS/TWA</td>
</tr>
</tbody>
</table>

Exposure controls: Ensure adequate general ventilation.
Environmental exposure controls: No specific environmental exposure controls required.

PERSONAL PROTECTION

Respiratory protection: No specific personal protection is required.
Hand protection: Rubber gloves recommended
Eye protection: Safety glasses recommended
Skin protection: If major exposure is possible, wear suitable protective clothing such as rubber boots, apron, etc.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Thin red liquid
Odor threshold: N/E
Melting point/Freezing point: 0°C
Flash point: 66°C
Upper/lower flammability/explosive limits: N/E
Vapor density: Greater than air
Solubility: 100% soluble in water
Auto-ignition temperature: N/E
Viscosity: Less than 10 CPS @ 20°C
Oxidizing properties: Not an oxidizer
Odor: spearmint
pH: 12.0 ± 0.5
Boiling point/boiling range: 100°C
Evaporation rate: Less than water
Vapor pressure: Greater than water
Relative density: 0.992 kg/l @ 20°C
Partition coefficient (n-octanol/water): Not determined
Decomposition temperature: N/E
Explosive properties: None
Other information: N/A
10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.
Hazardous Reactions: Adding water directly to the product may generate heat and cause product to splash.
Conditions to avoid: Improper order of dilution
Incompatible materials: Strong acids and oxidizing agents
Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION

PREPARATION SUMMARY – Toxicity testing has not been completed on the mixture.

LOCAL EFFECTS
Skin contact: Corrosive. Can cause skin burns.
Eye Contact: Corrosive. Can cause eye burns.
Sensitization: None known
Chronic effects: None known

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

COMPONENT SUMMARY *
ethylene glycol monobutyl ether  CAS# 111-76-2
LD₅₀: (Oral, rat) 470 mg/kg – 1746 mg/kg
Potential Health Effects
Eye: May cause severe eye irritation.
Skin: May cause slight skin irritation with local redness. Repeated exposure may cause a burn
Ingestion: Moderate toxicity if swallowed. Causes irritation to the gastrointestinal tract.
Inhalation: May cause irritation to upper respiratory tract (nose and throat).
Chronic: Prolonged or repeated exposure can cause damage to the liver, kidneys, lymphoid system, blood and blood-forming organs.
Carcinogenicity: Not listed as a carcinogen.

ethanolamine CAS# 141-43-5
LD₅₀: (Oral, rat) 1090 mg/kg – 3320 mg/kg
Potential Health Effects
Eye: May cause severe irritation.
Skin: May cause skin burns.
Ingestion: Low toxicity if swallowed. May result in gastrointestinal irritation or ulceration.
Inhalation: Excessive exposure may cause irritation to upper respiratory tract (nose and throat).
Chronic: May cause liver and kidney damage.
Carcinogenicity: Not listed as a carcinogen.

*Component data recorded from available sources pertaining to individual component CAS number.

12. ECOLOGICAL INFORMATION

PREPARATION SUMMARY – Ecological testing has not been completed on the mixture.

COMPONENT SUMMARY *
ethylene glycol monobutyl ether  CAS# 111-76-2
96 hour LC₅₀, bluegill (Lepomis macrochirus) 820 – 1490 mg/l
LC₅₀, water flea (Daphnia magna) 835 mg/l
Environmental Fate: Material is readily biodegradable. Bioconcentration potential is low.

ethanolamine CAS# 141-43-5
96 hour LC₅₀, fathead minnow (Pimephales promelas) 125 - 2070 mg/l
LC₅₀, water flea (Daphnia magna) 33 - 93 mg/l
Environmental Fate: Material is readily biodegradable. Bioconcentration potential is low.

*Component data recorded from available sources pertaining to individual component CAS number.
SAFETY DATA SHEET

LASERSHOT SPRAY & WIPE DEGREASER

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

INTERNATIONAL TRANSPORTATION REGULATIONS:

UN number: UN1760
Packing group: III

LAND-ROAD/RAILWAY
Proper shipping name: Corrosive liquid, n.o.s. (ethanolamine)
ADR/RID class: 8
ADR/RID item number: 80°C

SEA
Proper shipping name: Corrosive liquid, n.o.s. (ethanolamine)
IMDG class: 8
Medical First Aid Guide (MFAG): 730
Emergency Schedules (EmS): Fire F-S, Spillage S-B
Marine Pollutant: none

15. REGULATORY INFORMATION

EINECS Status: Ingredients are included in the EINECS/ELINCS/NLP inventories.

NATIONAL REGULATIONS: 648/2004
The surfactant contained in this preparation complies with the biodegradability criteria laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of the detergent manufacturer.

No additional national regulations are known to the supplier.

16. OTHER INFORMATION

Risk (R-) phrases:
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38- Irritating to eyes, respiratory system and skin.
R34- Causes burns.
R35- Causes severe burns.
R43- May cause sensitization by skin contact.

Safety (S-) phrases:
S1/2- Keep locked up and out of the reach of children.
S24- Avoid contact with skin.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of water.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46- If swallowed, seek medical advice immediately and show this container or label.

Detergent/Cleaner labeling (648/2004):
(<5%) Non-ionic surfactant and (<5%) Perfume.

Abbreviations:
N/A = Not Applicable
N/E = Not Established
N/L = Not Listed

Issued by:
Chemical/R&D Department
Amano Pioneer Eclipse Corporation

Revision Information:
04/01/2011 – revisions conforming to 1907/2006/EC amendment 453/2010, Section 3 & 9 (pH)
01/11/2010 – revisions conforming to 1907/2006/EC