

**I. IDENTIFICATION OF THE MIXTURE (PREPARATION) AND OF THE COMPANY/UNDERTAKING**

**1.1 PRODUCT IDENTIFIER**

Product Name: Eclipse d-Limonene Degreaser

Product Number: 314

**1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST**

Water-based degreaser concentrate.  
 Product intended for commercial and industrial use only.

**1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

**Manufacturer:**

Amano Pioneer Eclipse Corporation  
 P.O. Box 909  
 1 Eclipse Road  
 Sparta, NC 28675 USA  
 Telephone: +1 336 372 8080  
 Internet: www.pioneereclipse.com  
 E-mail: msds@pioneer-eclipse.com

**1.4 EMERGENCY TELEPHONE NUMBER**

**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**

**2.1 CLASSIFICATION OF THE MIXTURE (PREPARATION)**

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

**2.2 LABEL ELEMENTS**

EU Classification: Classified as Corrosive  
 Hazard symbol:



**Corrosive**

Risk Phrases: R22- Harmful if swallowed.  
 R35- Causes severe burns.  
 R36/37/38- Irritating to eyes, respiratory system and skin.  
 R41- Risk of serious damage to eyes.  
 R43- May cause sensitisation by skin contact.  
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S1/2- Keep locked up and out of the reach of children.  
 S24/25- Avoid contact with skin and eyes.  
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible.)  
 S60- This material and its container must be disposed of as hazardous waste.  
 S61- Avoid release to the environment. Refer to special instructions/Safety Data sheets.

**2.3 OTHER HAZARDS**

No other hazards are known to the supplier.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1/3.2 MIXTURES**

Dangerous Ingredients	EC No.	Weight %	CAS No.	Symbol	R-phrases *
sodium carbonate	207-838-8	1 – 5	497-19-8	Xi (Irritant)	R36
tetrasodium ethylene diamine tetracetate	200-573-9	1 – 5	64-02-8	Xn (Harmful) Xi (Irritant)	R22 R41

disodium metasilicate	229-912-9	1 – 5	6834-92-0	C (Corrosive) Xi (Irritant)	R34 R37
d-limonene	227-813-5	0.1 – 1.0	5989-27-5	Xi (Irritant) N (Dangerous for the Environment)	R10 R38 R43 R50/53

\* see section 16 for the full text of relevant R-phrases

#### 4. FIRST AID MEASURES

##### 4.1 DESCRIPTION OF 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 directing 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.

##### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- 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.

##### 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No information available.

#### 5. FIRE FIGHTING MEASURES

##### 5.1 EXTINGUISHING MEDIA

Dry chemical, water spray, foam, carbon dioxide

##### 5.2 SPECIAL HAZARDS ARISING FROM THE MIXTURE

Hazardous combustion products: None

##### 5.3 ADVICE FOR FIRE FIGHTERS

Unusual fire and explosion hazards: Materials can splatter above 100°C/212°F.  
 Special firefighting procedures: Corrosive material (See Sections 8 & 10)

#### 6. ACCIDENTAL RELEASE MEASURES

##### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Refer to Section 8 for appropriate personal protective equipment.

##### 6.2 ENVIRONMENTAL PRECAUTIONS

Keep spills and cleaning runoff out of sewers and open bodies of water.

##### 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

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 solid diking material to separate containers for disposal.

##### 6.4 REFERENCE TO OTHER SECTIONS: Refer to Section 8 of the SDS.

#### 7. HANDLING AND STORAGE

##### 7.1 PRECAUTIONS FOR SAFE HANDLING

**ECLIPSE™ d-LIMONENE DEGREASER**

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.

**7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

Storage temperature (Max. 60°C/140°F) (Min. 1°C/34°F). Keep from freezing. Keep container sealed when not in use. Keep out of reach of children.

**7.3 SPECIFIC END USE(S):** No information available

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**8.1 CONTROL PARAMETERS**

Occupational Exposure limits:      None established for components

**8.2 EXPOSURE CONTROLS**

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

**PERSONAL PROTECTION**

Respiratory protection:      Respiratory protection should be worn when there is potential to exceed the exposure limit requirements or guidelines.  
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**

**9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: thin, orange liquid	Odor: citrus
Odor threshold: N/E	pH: 12.5
Melting point/Freezing Point: N/A	Initial boiling point/boiling range: 100°C
Flash point: > 93°C	Evaporation Rate: less than water
Upper/lower flammability/explosive limits: N/A	Vapor pressure: less than water
Vapor density: greater than air	Relative density: 1.06 kg/L @ 20°C
Solubility: 100% soluble in water	Partition coefficient (n-octanol/water): N/E
Auto-ignition temperature: N/A	Decomposition temperature: N/E
Viscosity: <10 centipoise @ 20°C	Explosive Properties: N/A
Oxidizing properties: Not an oxidizer	

**9.2 OTHER INFORMATION**

VOC: 0.16% (as supplied), 0.01% (1:16 & 1:32), <0.01% (1:64 & 1:128)

**10. STABILITY AND REACTIVITY**

**10.1 REACTIVITY:** None known

**10.2 CHEMICAL STABILITY:** Stable under normal conditions.

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Product may react strongly with water. Care should be used if diluting; product should be slowly added to water.

**10.4 CONDITIONS TO AVOID:** None known.

**10.5 INCOMPATIBLE MATERIALS:** Strong acids, bases and oxidizing agents.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** None known.

**11. TOXICOLOGICAL INFORMATION**

**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

**PREPARATION SUMMARY**

Toxicity testing has not been completed on the mixture.

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## LOCAL EFFECTS

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

## SPECIFIC EFFECTS

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

## COMPONENT SUMMARY \*

sodium carbonate CAS# 497-19-8LD<sub>50</sub>: (oral, rat) 5000 mg/kg

## Potential Health Effects

Eye: Causes irritation of the eyes.

Skin: Continuous contact may cause skin irritation.

Ingestion: May be harmful if swallowed. Symptoms may include nausea and vomiting.

Inhalation: May irritate the mucous membranes and upper respiratory tract.

Chronic: No data available.

Carcinogenicity: Not listed as a carcinogen.

tetrasodium ethylene diamine tetraacetate CAS# 64-02-8LD<sub>50</sub>: (oral, rat) 3030 mg/kg

## Potential Health Effects

Eye: Causes irritation of the eyes.

Skin: Causes irritation of the skin. Skin contact may produce burns.

Ingestion: Harmful if swallowed. Large amounts may cause gastric upset.

Inhalation: Inhalation may produce irritation of respiratory tract.

Chronic: Repeated or prolonged exposure can produce target organ damage.

Carcinogenicity: Not listed as a carcinogen.

disodium metasilicate CAS# 6834-92-0LD<sub>50</sub>: (oral, rat) 1500-3200 mg/kg

## Potential Health Effects

Eye: Corrosive. Causes eye burns

Skin: Corrosive. Causes skin burns.

Ingestion: Corrosive. Causes burns to mouth, esophagus, and stomach.

Inhalation: Dust corrosive to respiratory tract.

Chronic: No known chronic hazards

Carcinogenicity: Not listed as a carcinogen.

d- limonene CAS# 5989-27-5LD<sub>50</sub>: (oral, rat) 4400 mg/kg

## Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause digestive tract disturbances.

Inhalation: May cause respiratory tract irritation.

Chronic: No data available.

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.

**12.1 TOXICITY:** No data available.**12.2 PERSISTENCE AND DEGRADABILITY:** No data available.**12.3 BIOACCUMULATIVE POTENTIAL:** No data available.**12.4 MOBILITY IN SOIL:** No data available.**12.5 RESULTS OF PBT AND vPvB ASSESSMENT:** No data available.**12.6 OTHER ADVERSE EFFECTS:** No data available.

## COMPONENT SUMMARY\*

sodium carbonate CAS# 497-19-8

LC50, 96 hr Bluegill sunfish 300-320 mg/l

LC50, 96 hr Daphnia magna 265-565 mg/l

Environmental Fate: Inorganic substance. No significant toxicity to aquatic organisms is expected.

tetrasodium ethylene diamine tetraacetate CAS# 64-02-8

LC50, 96 hr Bluegill sunfish 490 mg/l

Environmental Fate: Not known

disodium metasilicate CAS# 6834-92-0

LC50, 96 hr Gambusia affinis 2320 ppm

LC50, 96 hr Daphnia magna 247 ppm

Environmental Fate: This material is not persistent in aquatic systems. Not expected to bioconcentrate.

d- limonene CAS# 5989-27-5

LC50, 96 hr fathead minnow 702 mg/l (flow-through)

Environmental Fate: May cause long-term adverse effects on the environment.

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

**13. DISPOSAL CONSIDERATIONS****13.1 WASTE TREATMENT METHODS**

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

**14. TRANSPORT INFORMATION****14.1 UN NUMBER:** UN1760**14.2 UN PROPER SHIPPING NAME:** Corrosive liquid, n.o.s. (disodium trioxosilicate)**14.3 TRANSPORT HAZARD CLASSES:** 8**14.4 PACKING GROUP:** III**14.5 ENVIRONMENTAL HAZARDS:** N/A**14.6 SPECIAL PRECAUTIONS FOR USER:****IMDG**

Emergency Schedules (EmS): Fire F-A, Spillage S-B

Stowage and Segregation: Category A. Clear of living quarters.

Marine Pollutant: none

**ADR/RID**

Class: 8

Item Number: 80

Classification Code: C9

**14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MAPROL73/78 AND THE IBC CODE:** N/A

\*Package volumes &lt; 5L are shipped as Limited Quantity; as permitted by hazard class and quantity limits.\*

**15. REGULATORY INFORMATION****15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE MIXTURE**

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

NATIONAL REGULATIONS:

**648/2004**

The surfactants contained in this preparation comply 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.

**15.2 CHEMICAL SAFETY ASSESSMENT:** No information available.

## 16. OTHER INFORMATION

### REVISION INFORMATION:

10/14/2013 – revision conforming to 1907/2006/EC amendment 453/2010 Annex I

### ABBREVIATIONS:

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

### FULL TEXT OF R-PHRASES:

R10 - Flammable.  
R22 - Harmful if swallowed.  
R34 - Causes burns.  
R35 - Causes severe burns.  
R36/37 - Irritating to eyes and respiratory system.  
R38 - Irritating to skin.  
R41 - Risk of serious damage to eyes.  
R43 - May cause sensitization by skin contact.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### FULL TEXT OF S-PHRASES:

S1/2 - Keep locked up and out of the reach of children.  
S13 - Keep away from food, drink and animal feeding stuffs.  
S22 - Do not breathe dust.  
S24/25 - Avoid contact with skin and eyes.  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
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.  
S60 - This material and its container must be disposed of as hazardous waste.  
S61 - Avoid release to the environment. Refer to special instructions/Safety Data sheets.

### DETERGENT/CLEANER LABELING (648/2004):

<5% - anionic surfactant, Non-ionic surfactant, EDTA, perfumes  
>0.01% <1% - d-Limonene allergenic fragrance

### ISSUED BY:

Chemical/R&D Department  
Amano Pioneer Eclipse Corporation