



MATERIAL SAFETY DATA SHEET

Conforms to 2001/58/EC Issued: 28/09/2005

PRODUCT NAME: ECLIPSE d-LIMONENE DEGREASER

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

PRODUCT NAME	: Eclipse d-Limonene Degreaser	Product Number: 314
PRODUCT USE	: Water based degreaser concentrate	
MANUFACTURER	: Pioneer Eclipse Corp.	
P.O.BOX	: 909	
ADDRESS	: 1 Eclipse Road, Sparta NC28675, USA	
PHONE	: +1 336 372 8080	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation: Preparation

INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Einecs No.	Weight %	CAS No.	Symbol	R phrases
Sodium metasilicate (Disodium trioxosilicate)	229-912-9	2-5	6834-92-0	Xi (irritant) C (corrosive)	R34, R37
Sodium carbonate	207-838-8	2-5	497-19-8	Xi (irritant)	R36
Limonene	227-813-5	< 1	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

3. HAZARDS IDENTIFICATION

Physical/chemical hazards: Corrosive

Human health hazards: Corrosive

Environmental hazards: On the basis of available information, this material/preparation is not expected to produce any significant adverse environmental effects when used as directed.

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: May cause burns to mouth, throat and stomach. May be harmful if swallowed.

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

Eye contact: May cause permanent damage.

FIRST AID MEASURES

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

Ingestion: Do not induce vomiting! Immediately drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin contact: Immediately wash off with plenty of water for at least 15 minutes. Get medical attention immediately.



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Eye contact: Immediately wash out with water for at least 15 minutes. Get 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. 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. 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: None established.
Exposure controls: No special ventilation requirements. Ensure adequate general ventilation.

OCCUPATIONAL EXPOSURE CONTROLS

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.

Environmental exposure controls: No specific environmental exposure controls required.

9. PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Appearance: Thin orange liquid

Odour: Citrus

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

pH: 12.65 to 13.15

Flash point: none

Oxidizing properties: Not an oxidizer

Relative density: 1.066 kg/l @ 20°C

Boiling point/boiling range: 100°C

Explosive properties: None

Vapour pressure: Greater than water

Solubility: 100% soluble in water

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Partition coefficient (n-octanol/water): Not determined
Vapour density: Greater than air

Viscosity: less than 5 CPS @ 20°C
Evaporation rate: Less than water

10. STABILITY AND REACTIVITY

Conditions to avoid: None known
Materials to avoid: None known
Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION**COMPONENT SUMMARY**

Sodium metasilicate

LD₅₀: (Oral) rat 1300 mg/kg

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.
Skin: Causes skin irritation. Causes redness and pain.
Ingestion: Harmful if swallowed. Causes digestive tract irritation with abdominal pain and vomiting.
Inhalation: Harmful if inhaled. Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, and breathing difficulty.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

CARCINOGENICITY: Not expected to occur.

PREPARATION SUMMARY

Acute Toxicity: Corrosive. Oral LD₅₀ estimated to be between 200 - 2000 mg/kg. Dermal LD₅₀ estimated to be between 400 - 2000 mg/kg. LC₅₀ estimated to be between 2 - 20 mg/L/4hr.

Limonene

Preparation Summary

Acute Toxicity: LD₅₀ oral (Rat) >5000 mg/kg; acute dermal LD₅₀ (rabbit) >5000 mg/kg

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.
Skin: Causes skin irritation. Causes redness and pain.
Ingestion: Harmful if swallowed.
Inhalation: May cause nose, throat and respiratory tract irritation.
Chronic: May cause drying, defatting and dermatitis of skin.

CARCINOGENICITY: Not expected to occur.

COMPONENT SUMMARY

Sodium carbonate

LD₅₀: (Oral) rat 4090 mg/kg

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.
Skin: Causes skin irritation. Causes redness and pain.
Ingestion: Harmful if swallowed. Causes digestive tract irritation with abdominal pain and vomiting.
Inhalation: May irritate the mucous membranes and upper respiratory tract.



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Chronic: No data available.
CARCINOGENICITY: Not expected to occur.

PREPARATION SUMMARY

Acute Toxicity: No data available.

LOCAL EFFECTS

Skin contact: See Section 4.
Eye contact: See Section 4.
Sensitization: None known
Chronic effects: None known

SPECIFIC EFFECTS

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

12. ECOLOGICAL INFORMATION

COMPONENT SUMMARY

Sodium metasilicate: not available

Limonene

96 hour LC₅₀ fathead minnow: 702 mg/l (flow-through)

Sodium carbonate:

96 hour LC₅₀ = 265-565 mg/L (daphnia magna) (low toxicity)

96-hour LC₅₀ = 300-320 mg/L (bluegill sunfish) (low toxicity)

PREPARATION SUMMARY

Ecotoxicity: This preparation is highly soluble in water. Limited toxicity tests and models indicate this preparation should exhibit low toxicity to aquatic organisms.

Environmental Fate: This preparation will biodegrade relatively rapidly in both soil and water, and will not persist in the environment. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems.

Bioaccumulation: Because of this preparation's high solubility and rapid biodegradability, it is unlikely that bioaccumulation will occur in aquatic or terrestrial systems. Models estimate that this material will preferentially partition to water versus air or soil. Based on available information, this preparation is not expected to produce any significant adverse environmental effects, when used as directed.

13. DISPOSAL

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

PRODUCT NAME: ECLIPSE d-LIMONENE DEGREASER

LAND-ROAD/RAILWAY

Proper shipping name: Corrosive liquid, n.o.s. mixture contains Disodium trioxosilicate
ADR/RID class: 8
ADR/RID item number: 80°c

SEA

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

15. REGULATORY INFORMATION

NATIONAL REGULATIONS: No additional national regulations are known to the supplier.
EU REGULATIONS



HAZARD SYMBOL:

EU Classification: Classified as Corrosive according to current legislation (67/548/EEC, 1999/45/EC).

Risk phrases: See Section 16.
Safety 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.
 S60-This material and its container must be disposed of as hazardous waste.
 S61-Avoid release to the environment.

EINECS Status: All ingredients are included in the EINECS inventories.

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

OTHER DATA

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



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authorities of the Member states and will be made available to them, at their direct request or at the request of the detergent manufacturer.

16. OTHER INFORMATION

Relevant R phrases

R10-Flammable.

R34- Causes burns.

R36/37-Irritating to eyes and respiratory system.

R38-Irritating to the skin.

R43-May cause sensitization by skin contact.

R50/53-Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Detergent/Cleaner labeling (89/542/EEC): (0.2-<5%) anionic surfactant, (0.2-<5%) Non-ionic surfactant, (0.2-<5%) EDTA, and (<5%) perfume- (0.01-<1%) Limonene allergenic fragrance.

Issued by:

Genie G Bost, Regulatory Affairs Manager

Revision Information:

28/09/2005, revision conforming to 648/2004/EC