

ECLIPSE® d-LIMONENE DEGREASER

An extra-strength, all-purpose degreaser designed to remove the toughest grease build-up

FEATURES

- Concentrated for economical use
- Removes grease build-up fast
- Phosphate free formula
- Fortified with natural citrus solvents – no petroleum solvents
- Effective on most washable surfaces



RECOMMENDED SURFACES

All washable surfaces.

PRODUCT DATA

Description:	Non-phosphate, heavy duty degreaser
Appearance:	Clear orange liquid
Fragrance:	Orange
Viscosity (Brookfield):	<5 centipoise @ 68°F (20°C)
pH (undiluted):	12.9 ± 0.5 ASTM E70
Density:	8.9 lb per gal @ 68°F 1.07 kg per liter @ 20°C
Flash Point:	183°F (84°C) ASTM D56
Freeze/Thaw:	Passes 3 cycles ASTM D3209-93 (1998)
Shelf Life:	2 years, ASTM D1791-93 (1998)

PRECAUTIONS

Keep out of reach of children. Keep container sealed when not in use. Keep from open flames. Gloves and safety glasses are recommended.

ORDERING INFORMATION

Product #314D: 4 x 1.06 gallon per case (4 x 4 liters)

DIRECTIONS FOR USE: GENERAL DEGREASING

1. Mix Eclipse d-Limonene Degreaser per the following dilution ratio:
1:16 8 US oz per gallon water (313 ml per 5 liters water)
2. Spray and wipe. No rinse needed.

ROUTINE FLOOR MAINTENANCE:

1. Dust mop floor with a mop treated with Eclipse Dust Mop Treatment or with an untreated dust mop.
2. Mix Eclipse d-Limonene Degreaser per the following dilution ratio:
1:128 1 US oz per gallon water (40 ml per 5 liters water)
3. Damp mop or autoscrub floor with Pioneer Eclipse Light Cleaning Red Pad.
4. Burnish with recommended Pioneer Eclipse burnisher and pad.

DEEP SCRUB CLEANING OF FLOOR:

1. Dust mop floor with a mop treated with Eclipse Dust Mop Treatment or with an untreated dust mop.
2. Mix Eclipse d-Limonene Degreaser per the following dilution ratio:
1:32 4 US oz per gallon water (160 ml per 5 liters water)
3. Apply to surface. Allow a contact time of 5 minutes.
4. Scrub floor with an autoscrubber or low speed floor machine using the appropriate scrubbing pad.
5. Pick up the cleaning residue with the autoscrubber or wet vac and rinse the floor twice with clean, cold water. Allow to dry.
6. Recoat the floor with the recommended Pioneer Eclipse floor coating as desired.

ECLIPSE d-LIMONENE DEGREASER

LAST REVISION DATE: 03/22/06
MANUFACTURER: Pioneer Eclipse® Corporation
 Sparta, NC 28675 Phone: 1-336-372-8080
FOR CHEMICAL EMERGENCY:
 Spill, Leak, Fire, Exposure or Accident
CALL CHEMTREC - Day or Night at
1-800-424-9300 Toll Free in the Continental US
483-7616 in DISTRICT OF COLUMBIA. For calls
 originating outside the US: Call Collect
1-202-483-7616 Washington, DC

SECTION I: GENERAL INFORMATION

PRODUCT NAME: Eclipse® d-Limonene Degreaser
PRODUCT #: 314D
PRODUCT TYPE: Non-phosphate
 d-Limonene Degreaser
PRECAUTIONS: Corrosive to skin and eyes. Keep
 container sealed when not in use. Keep out of
 reach of children.
FLAMMABILITY: 1
REACTIVITY: 0
HEALTH: 2
NFPA HAZARD RATINGS

4-EXTREME	3-HIGH	2-MODERATE
1-SLIGHT	0-INSIGNIFICANT	



SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT: Sodium metasilicate
CAS#: 6834-92-0
%: 5-10
OSHA PEL: N/L
ACGIH TLV: N/L
LD₅₀ SPECIES & ROUTE: 1300 mg/kg rat, oral

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

SECTION III: PHYSICAL/CHEMICAL DATA

APPEARANCE: Clear orange liquid
pH (undiluted): 12.9
BOILING POINT: 100°C / 212°F
EVAPORATION RATE: Less than water
FREEZING POINT: -3°C / 30°F
VAPOR DENSITY: Greater than air
VOLATILE BY WEIGHT: 85-90%
VAPOR PRESSURE: N/E
DENSITY: 8.9 lb per gal @ 68°F
 1.07 kg per liter @ 20°C
SOLUBILITY IN WATER: Miscible

SECTION IV: FIRE AND EXPLOSION DATA

FLASH POINT: 183°F (84°C) ASTM D56
EXPLOSIVE LIMITS:
 LOWER: N/A UPPER: N/A
EXTINGUISHING MEDIA: Water spray, CO₂ dry
 chemical, alcohol-type or universal-type foams.
SPECIAL FIRE FIGHTING PROCEDURES: None
HAZARDOUS COMBUSTIBLE PRODUCTS: N/A
UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

SECTION V: REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITY (MATERIALS TO AVOID):
 Strong acids and oxidizing agents may produce
 carbon monoxide, carbon dioxide, and
 nitrogen oxides.
HAZARDOUS DECOMPOSITION PRODUCTS: N/A
REACTIVITY CONDITIONS: None

SECTION VI: HEALTH HAZARD DATA

EYES: May cause severe burns or possible
 corneal damage. For eye contact, flush with a
 large amount of water for at least 15 minutes.
 See a physician immediately.
SKIN: Irritation, reddening or possible damage
 upon repeated or prolonged contact. For skin
 contact, wash affected areas with soap and
 water. Seek medical attention if irritation persists.
INHALATION: Vapor or mist can cause headache,
 nausea and irritation of the eyes, nose, throat and
 lungs. For overexposure, move subject to fresh
 air. Seek medical attention if symptoms persist.
INGESTION: May cause nausea, abdominal
 discomfort, vomiting, diarrhea. If ingested, drink
 two glasses of water or milk and do not induce
 vomiting. Remove by endotracheal intervention.
 Seek medical attention immediately.
CHRONIC EFFECTS AND MEDICAL CONDITIONS
AGGRAVATED BY OVEREXPOSURE: Main hazard
 is due to product's severe irritant properties.
 Treatment should be directed at the control of
 symptoms and the clinical condition of
 the patient.
CARCINOGEN: Non-carcinogenic
REPRODUCTIVE EFFECTS: N/E
TERATOGENICITY: N/E
MUTAGENICITY: N/E
THRESHOLD LIMIT VALUE: See Section II.

SECTION VII: SPILL, LEAK & DISPOSAL PROCEDURES

SMALL SPILLS: Absorb spill with inert material
 (e.g. sand, earth) and dispose of as waste
 material in accordance with local, state, and
 federal law or flush with large amounts
 of water.
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.

WASTE DISPOSAL: Landfill or incinerate the
 contaminated solids and diking material
 according to 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.

SECTION VIII: SPECIAL PROTECTION

EYE PROTECTION: Wear eye protection.
RESPIRATORY PROTECTION: None required when
 permissible airborne concentrations are not
 exceeded. In emergency, use approved positive
 pressure self-contained breathing device.
VENTILATION: Adequate general room ventilation.
OTHER PROTECTIVE EQUIPMENT: As required by
 employer code. Gloves and safety glasses
 are recommended.

SECTION IX: SPECIAL PRECAUTIONS

HANDLING AND STORAGE:
 Storage temperature (MAX. 60°C / 140°F)
 (MIN. 1°C / 34°F)
OTHER PRECAUTIONS: Avoid Freezing. If frozen,
 allow to return to room temperature slowly. Mix
 thoroughly before using.

SECTION X: ADDITIONAL INFORMATION

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 contained herein grants or extends any license,
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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

Pioneer Eclipse®