



SAFETY DATA SHEET

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 17-Dec-2022

Supersedes: 1-May-2015

ECLIPSE™ d-LIMONENE DEGREASER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product Name: Eclipse d-Limonene Degreaser
UFI: 9YU0-Q03G-200U-DGHX

Product Number: 314

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Product intended for commercial and industrial use only.
Intended Use: Water-based degreaser concentrate
Uses Advised Against: Other than per labelled instructions.

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
Telephone: 1-336-372-8080
Email: sds@pioneereclipse.com
Internet: www.pioneereclipse.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)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE MIXTURE

This mixture has been classified according to EC 1272/2008.
Skin Corrosion - Category 1
Eye Damage - Category 1

2.2 LABEL ELEMENTS

Signal Word: Danger

Hazard pictogram(s):



Contains: Sodium carbonate, Tetrasodium ethylene diamine tetraacetate, Disodium metasilicate, d-Limonene

Hazard Statement(s):

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary Statement(s):

P260 Do not breathe mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection.

P310 Immediately call a POISON CENTER/doctor if you feel unwell.

P301+P330+P331+P311 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 OTHER HAZARDS

EUH208 Contains D-limonene . May produce an allergic reaction.

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ECLIPSE™ d-LIMONENE DEGREASER**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1/3.2 SUBSTANCES/MIXTURES**

Ingredient	EC No.	Weight %	CAS No.	CLP Classification	
				Hazard Class	Hazard Statement(s)*
sodium carbonate	207-838-8	1 - 5	497-19-8	Eye Irrit 2	H319
tetrasodium ethylene diamine tetraacetate	200-573-9	1 - 5	64-02-8	Acute Tox 4 Eye Dam 1	H302 H318
disodium metasilicate	229-912-9	1 - 5	6834-92-0	Skin Corr 1B STOT SE3	H314 H335
d-Limonene	227-813-5	0.1 - 0.5	5989-27-5	Flam Liq 3 Skin Irrit 2 SkinSens 1B Asp Tox 1 Aqua Acute 1 AquaChron 3	H226 H315 H317 H304 H400 H412

**See section 16 for the full text of Hazard Statements*

Ingredient	EC No.	CAS No.	M-Factor
d-Limonene	227-813-5	5989-27-5	Aquatic Chronic 3, M=1

SECTION 4: FIRST AID MEASURES**4.1 DESCRIPTION OF FIRST AID MEASURES**

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

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye Contact:** Can cause serious eye damage. May cause permanent damage.
- Skin Contact:** Can cause severe skin burns. May cause permanent damage.
- Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract.
- Ingestion:** May cause burns to mouth, throat and stomach.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No information available.

SECTION 5: FIRE FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Dry chemical, water spray, foam, carbon dioxide

5.2 SPECIAL HAZARDS ARISING FROM THE MIXTUREHazardous combustion products: CO, CO₂, Nitrogen oxides

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include but not limited to the above mentioned substances.

5.3 ADVICE FOR FIRE FIGHTERS

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection. Fire-fighters should wear clothing conforming to EN469 for chemical incidents. Materials can splatter above 100°C/212°F. Corrosive material.



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SECTION 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.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE 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.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Workplace Exposure Limits:

Ingredient	Source	TWA (8hours)		STEL (Short term)		Note(s)
		ppm	mg/m ³	ppm	mg/m ³	
d-Limonene (CAS# 5989-27-5)	DE (TRGS 900)	-	-	5	28	DFG,H,Sh,Y
	NO – Forskrift, best.nr. 704	-	-	25	140	A

8.2 EXPOSURE CONTROLS

Engineering Controls: Use only with adequate ventilation. Use local ventilation and other engineering controls to maintain airborne contaminants below established and recommended exposure limits. If this product contains ingredients with exposure limits, monitoring may be required to determine the effectiveness of ventilation and other control measures.

Environmental exposure controls: No specific environmental exposure controls known.

Personal Protective Equipment (PPE)

Eye/Face Protection: Wear eye protection/face protection.
Safety glasses or goggles (EN166).

Hand Protection: Wear chemical resistant gloves. (EN374).
Protective index 6, Breakthrough time > 480 mins. (E.g. - nitrile gloves, 0.4 mm thickness)
Protective gloves should be selected according to the application and duration of use. Workplace selection should take into consideration handling requirements, physical requirements and exposure to other substances.

Skin Protection: If major exposure is possible, wear suitable protection such as rubber boots, apron, etc.

Respiratory Protection: Respiratory protection should be worn when there is a potential of inadequate ventilation. If exposure limits are exceeded or symptoms are experienced, use an approved respirator with multi-purpose combination filter. (E.g. - EN 14387- ABEK)

Hygiene Measures: Do not eat, drink or smoke when using this product.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Orange
Odour:	Citrus fragrance
Melting point/Freezing point:	No test data available
Boiling point/Boiling range:	No test data available
Flammability:	Does not maintain combustion.
Lower and upper explosion limits:	No test data available
Flash Point:	> 93 °C [Method: Closed cup, ASTM D 56]
Auto-ignition temperature:	No test data available
Decomposition temperature:	No test data available
pH:	12.5 (as supplied) [Method: ASTM E 70]
Kinematic viscosity:	< 5 centipoise @ 20°C [Method: Rotational viscometer, Brookfield]
Solubility:	Water, completely soluble
Partition coefficient n-octanol/water [log Pow]:	No test data available
Vapor pressure:	No
Density:	1.06 kg/L @ 20°C [Method: Pycnometer, ASTM D 1475]
Relative vapor density:	No test data available
Particle characteristics:	Not applicable to liquids

9.2 OTHER INFORMATION

9.2.1 - Information with regard to physical hazard class:

Oxidising properties:	Not established
Explosive properties:	Not established

9.2.2 - Other safety characteristics:

Relative evaporation rate (butylacetate=1):	No test data available
VOC:	0.16% (as supplied), 0.01% (1:16 & 1:32), <0.01% (1:64 & 1:128)

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY:	Stable under normal conditions. Reacts exothermically with acids: release of heat.
10.2 CHEMICAL STABILITY:	Stable under normal conditions.
10.3 POSSIBILITY OF HAZARDOUS REACTIONS:	None expected under normal conditions. Reacts exothermically with acids: release of heat. 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. Do not mix with other chemicals unless stated on the product label.
10.6 HAZARDOUS DECOMPOSITION PRODUCTS:	None known

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) 1272/2008

ACUTE TOXICITY:	Toxicity testing has not been completed on the mixture. Based on available data, the classification criteria are not met.	
ATE _{mix} (oral):	> 2000 mg/kg	Not classified as Acutely Toxic (oral).
ATE _{mix} (dermal):	> 2000 mg/kg	Not classified as Acutely Toxic (dermal).
ATE _{mix} (inhalation):	> 20 mg/l (4 hr/vapour)	Not classified as Acutely Toxic (inhalation).



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Component	CAS #	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust/Mist)
sodium carbonate	497-19-8	4090 mg/ml	> 2000 mg/ml	(4hr) - 1.15 mg/l
tetrasodium ethylene diamine tetraacetate	64-02-8	3030 mg/ml	> 5000 mg/ml	data not available
disodium metasilicate	6834-92-0	995 - 1335 mg/ml	> 5000 mg/ml	(4hr) >2.06 mg/l
d-Limonene	5989-27-5	4400 mg/ml	> 2000 mg/ml	data not available

SKIN CORROSION/IRRITATION:

Classified as Skin Corrosive - Category 1
Causes severe skin burns.

SERIOUS EYE DAMAGE/IRRITATION:

Classified as Eye Damage - Category 1
Causes serious eye damage.

RESPIRATORY OR SKIN SENSITIZATION:

May cause an allergic skin reaction.

GERM CELL MUTAGENICITY:

Based on available data, the classification criteria are not met.

CARCINOGENICITY:

Based on available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY:

Based on available data, the classification criteria are not met.

STOT-SINGLE EXPOSURE:

Based on available data, the classification criteria are not met.

STOT-REPEATED EXPSURE:

Based on available data, the classification criteria are not met.

ASPIRATION HAZARD:

Based on available data, the classification criteria are not met.

11.2 INFORMATION ON OTHER HAZARDS

11.2.1 Endocrine disrupting properties: None known

11.2.2 Other information: Effects and symptoms related to this mixture, if any, are listed in Section 4.2

12. ECOLOGICAL INFORMATION

12.1 TOXICITY: Ecological testing has not been completed on the mixture.

Based on available data, this product is not classified as hazardous to the environment.

Component details are given below:

Component	CAS #	LC50 fish (96 h)	EC50 Daphnia (48 h)	EC50 algae (72 h)
sodium carbonate	497-19-8	300 mg/ml	265 mg/l	242 mg/l
tetrasodium ethylene diamine tetraacetate	64-02-8	490 mg/ml	> 100 mg/l	1.01 mg/l
disodium metasilicate	6834-92-0	210 mg/l	216 mg/l	mg/l
d-Limonene	5989-27-5	702 mg/ml	0.577 mg/l	4.08 mg/l

12.2 PERSISTENCE AND DEGRADABILITY:

Testing has not been completed on the mixture.

Component	CAS #	Biodegradation
sodium carbonate	497-19-8	inorganic substance
tetrasodium ethylene diamine tetraacetate	64-02-8	not available
disodium metasilicate	6834-92-0	inorganic substance
d-Limonene	5989-27-5	readily biodegradable

12.3 BIOACCUMULATIVE POTENTIAL:

Testing has not been completed on the mixture.

Component	CAS #	Partition coefficient n-octanol/water (Log Kow)	Bioconcentration factor (BCF)
sodium carbonate	497-19-8	data not available	data not available
tetrasodium ethylene diamine tetraacetate	64-02-8	< 3	< 100
disodium metasilicate	6834-92-0	data not available	data not available
d-Limonene	5989-27-5	4.38	1022

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Component	CAS #	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
sodium carbonate	497-19-8	data not available
tetrasodium ethylene diamine tetraacetate	64-02-8	data not available
disodium metasilicate	6834-92-0	data not available
d-Limonene	5989-27-5	1984

12.5 RESULTS OF PBT AND vPvB ASSESSMENT: Not applicable**12.6 ENDOCRINE DISRUPTING PROPERTIES:** None known**12.7 OTHER ADVERSE EFFECTS:** No additional information available.**13. DISPOSAL CONSIDERATIONS****13.1 WASTE TREATMENT METHODS**

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

EU Waste Catalogue: 20 01 29* Detergents containing hazardous substances

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:**

Package volumes < 5 L are shipped as Limited Quantity; as permitted by hazard class and quantity limits.

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 MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS: Product is not transported in bulk.**15. REGULATORY INFORMATION****15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE MIXTURE**

Does not contain substances or labelled product uses subject to REACH Annex XVII restriction.

See Annex XVII of Regulation (EC) 1907/2006 for Designation of the substances and Conditions of restriction.

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to EU 649/2012

Contains no substance subject to EU 2019/1021

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Labeling of contents

Component	%
anionic surfactant, non-ionic surfactant, EDTA	< 5%
perfumes	
d-limonene	>0.01% <1%

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:**

17-Dec-2022 - Revisions per (EU) 2020/878; § 1, 2, 3, 8, 9, 11, 12, 13, 14, 15 & 16

ABBREVIATIONS:

ATE	Acute Toxicity Estimate
CAS No.	Chemical Abstract Service Number
CLP	Classification Labeling Packaging Regulation (EC) 1272/2008
EC50	Median Effective Concentration.
EC No.	European Union Identification Number
IMO	International Maritime Organization
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation, (EC) 1907/2006
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TWA	Time Weighted Average
UFI	Unique Formula Identifier
UN	United Nations
VOC	Volatile Organic Compound
vPvB	Very Persistent and Very Bioaccumulative

CLASSIFICATION ACCORDING TO EC 1272/2008:

Classification and procedure used to derive the classification for mixture:		
Skin Corr. 1	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data

FULL TEXT OF HAZARD STATEMENTS:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects



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FULL TEXT OF PRECAUTIONARY STATEMENTS:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P321 Specific treatment (see ... on this label).
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

ISSUED BY:

Chemical/R&D Department
Amano Pioneer Eclipse Corporation

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