

MATERIAL SAFETY DATA SHEET




ECOCLEAN UTILITY AGENCIES PTY LTD	PRODUCT : GRAFFITI REMOVER
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SECTION 1 – IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Trade Name:	“GRAFFITI REMOVER”		
SUPPLIER:	ECOCLEAN UTILITY AGENCIES PTY LTD	ABN:	72 135 037 160
TELEPHONE:	(07) 3849 7011	FAX:	(07) 3849 7117
EMERGENCY PHONE:	13 1126 in Australia.	Product Code:	
Substance:	SOLVENT	Product Use:	SOLVENT CLEANER
Creation Date:	NOV 2009	Revision Date:	NOV 2014
ADDRESS:	25 Dividend Street, Mansfield, Queensland, 4122, Australia.		

SECTION 2 – HAZARDS IDENTIFICATION

- This product is **classified as HAZARDOUS (IRRITANT/FLAMMABLE)** according to criteria of the National Occupational Health and Safety Commission Australia.
- This product is **classified as Dangerous Goods (class 3 Flammable)** according to the Australian Dangerous Goods (ADG) Code.
- This product is **classified as a Scheduled 5 Poison** according to the SUSDP.

Approved Criteria Classification	Xi - IRRITANT R10 - Flammable R36/38 – Irritating to skin and eyes. R43 – May cause sensitization by skin contact. S2 - Keep out of reach of children. S16 - Keep away from sources of ignition. S24 - Avoid contact with skin. S37 – Wear suitable gloves. S41 - In case of fire and / or explosion do not breathe fumes. S 45 - In case of accident, or if you feel unwell, seek medical advice immediately (show the label wherever 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.		
 			
UN Number	1993	ADG Classification	Class 3
Shipping Name	FLAMMABLE LIQUID, N.O.S.	ADG Subsidiary Risk	none allocated
Hazchem Code	3[Y]	Packing Group	III
SUSDP Classification	S5	ADG Class	

EMERGENCY OVERVIEW

Colour	Colourless/straw	Odour	CITRUS
Physical Description	Liquid	Viscosity	Non-viscous liquid
Major Health Hazards	None known		

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication “List of Designated Hazardous Substances” or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication “Approved Criteria for Classifying Hazardous Substances”.

Ingredients:	CAS Number:	Proportion:	Exposure Standards TWA	Exposure Standards STEL
Ingredients determined to be non-hazardous	various	< 10% w/w	not set	not set
N-methyl-2-pyrrolidone	872-50-4	30 – 60 % w/w	103 mg/m3 (25 ppm)	309 mg/m3 (75 ppm)
(R)-p-mentha-1,8-diene (d-LIMONENE)	5989-27-5	30 – 60 % w/w	not set	not set

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The **TWA** exposure value is the Time Weighted Average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The **STEL** (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 – FIRST AID MEASURES

Scheduled Poisons	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 03 474 7000).
First Aid Facilities	Normal washroom facilities.
Aggravated Medical Conditions	None known.
Inhalation	Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.
Skin contact	Wash skin with plenty of water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness develops.
Eye contact	Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Seek medical advice (e.g. ophthalmologist) if there is irritation.
Ingestion	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).
Advice to Doctor	Treat symptomatically. All treatments should be based on observed signs and symptoms of distress of the patient. Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Flammable. In use, may form flammable/explosive vapour-air mixture.
Extinguishing Media	Use carbon dioxide (CO ₂) fire extinguisher, foam, dry chemical powder.
Fire Fighting	On burning will emit toxic fumes, including those of oxides of carbon and oxides of nitrogen. Keep containers cool with water spray. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Evacuate area - move upwind of fire.
Flash Point	Ca 55 °C

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures	HAZCHEM code : 3[Y] 3 = use FOAM to fight fires. [Y] = Yes – risk of violent reaction, recommend breathing apparatus for fire only, contain. <ul style="list-style-type: none">➤ Shut off engine and electrical equipment off.➤ No smoking or naked lights within 50 metres.➤ Move people from immediate area; keep upwind.➤ Send messenger to notify fire brigade and police.➤ Tell them location, material quantity, UN number and emergency contact.➤ Indicate condition of vehicle and damage or injuries observed.➤ Warn other traffic.
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Occupational Release	<p>Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. For large spills, or tank rupture, consider initial evacuation distance of 200 metres in all directions. Stop leak if safe to do so. If available, use water spray to disperse vapour. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Residual deposits will remain slippery. Wash area down with excess water. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.</p>
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SECTION 7 – HANDLING AND STORAGE

Handling	<p>Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling.</p> <p>Do not breathe vapour, spray, mists.</p> <p>Use local exhaust extraction.</p> <p>Extinguish any naked flames. Remove ignition sources. Avoid sparks. Do not smoke.</p> <p>Take precautionary measures against static discharges.</p> <p>Earth all equipment.</p> <p>Do not empty into drains.</p>
Storage	<p>Store in a cool, dry, place with good ventilation. Store away from incompatible materials (Section 10). Keep containers closed at all times – check regularly for leaks. Keep container tightly closed and in a well-ventilated place.</p> <p>Keep away from direct sunlight and other sources of heat or ignition.</p> <p>Do not smoke in storage areas.</p>

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	<p>National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:</p> <p>Time-weighted Average (TWA): None established for specific product.</p> <p>See SECTION 3 for Exposure Limits of individual ingredients.</p> <p>Short Term Exposure Limit (STEL): None established for specific product.</p> <p>See SECTION 3 for Exposure Limits of individual ingredients.</p>
Biological Limit Values	None
Ventilation	Ensure ventilation is adequate.
Personal Protective Equipment	Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. Final choice of appropriate protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. The following protective equipment should be available;
Eye Protection 	The use of safety glasses with side shield protection, goggles or face shield is recommended to handle in quantity, cleaning up spills, decanting, etc. Contact lenses pose a special hazard ; soft lenses may absorb irritants and all lenses concentrate them.
Skin Protection 	Wear gloves. Overalls, apron, work boots and elbow length gloves are recommended for handling the concentrated product (as per AS/NZS 2161, or as recommended by supplier) to handle in quantity, cleaning up spills, decanting, etc.
Protective Material Types	Material suitable for detergent contact – Butyl rubber, Natural Latex, Neoprene, PVC, and Nitrile.

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Respirator	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Non-viscous liquid	Colour	Colourless/straw
Odour	citrus odour	Specific Gravity	0.90 @ 20 °C
Boiling Point	IBP Approximately 175 °C	Freezing Point	Approximately 0 °C
Vapour Pressure	Not determined	Vapour Density	Not determined
Flash Point	Approx 55 °C	Flammable Limits	Not available
Water Solubility	Miscible in all proportions	Autoignition Temperature	Not available
Viscosity	As water	Odour Threshold	Not available
Evaporation Rate	Not available.	Per Cent Volatile	100 % v/v

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure.
Conditions to Avoid	Extremes of temperature and direct sunlight. Avoid heat, sparks, open flames and other ignition sources.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	Product can decompose on combustion to form Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours.
Hazardous Reactions	None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

PRODUCT MIXTURE INFORMATION	
Local Effects	May be an irritant: eye, skin, inhalation and ingestion.
Target Organs	Eyes, mucous membranes, skin, lungs, central nervous system.
Ingestion	
short term exposure	Swallowing large amounts of this product can cause stomach irritation, nausea and diarrhoea. Low acute toxicity in animal studies. Aspiration of limonene may cause lung damage.
long term exposure	No information available.
Skin contact	
short term exposure	May cause skin irritation. May cause skin sensitisation. Prolonged contact with concentrated solutions may be irritating.
long term exposure	This product, as supplied is not a sensitizer. Improper storage and handling can lead to oxidation. The oxidized forms have shown potential to be skin sensitizers.
Eye contact	
short term exposure	The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration. The vapour is discomforting to the eyes if exposure is prolonged. The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations.
long term exposure	No information available.
Inhalation	
short term exposure	Moderately irritating to respiratory tract and mucous membranes. Inhalation of the vapour may result in headache, nausea and vomiting.

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long term exposure	No information available.
Carcinogen Status	
NOHSC	No significant ingredient is classified as carcinogenic by NOHSC.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.
Medical conditions aggravated by exposure	No information available.

CLASSIFICATION OF INDIVIDUAL INGREDIENTS

Ingredients	R-Phrases.
(R) - p-mentha-1,8-diene	R10, R38, R43, R50/53.
N-METHYL-2-PYRROLIDONE	R36/38

INDIVIDUAL INGREDIENT INFORMATION

NOTE : This information relates to each individual ingredient, when evaluated as pure undiluted chemical. See SECTION 3 for actual proportions of ingredients present in this product.

N-METHYL-2-PYRROLIDONE 100%

Irritation Data	Dermal LD50 (rabbit): 8000 mg/kg EYES: Moderate irritant (rabbit).
Toxicity Data	Oral LD50 (rat): 3914 mg/kg
Local Effects	Irritant: inhalation, skin, eye, ingestion .
Target Organs	Skin, mucous membranes, eyes.
Reproductive Effects	No available information.
Acute Toxicity	Harmful: ingestion.
Mutagenic Data	No available information.
Reproductive Effects	No available information.

(R) - p-mentha-1,8-diene (D-limonene) 100%

Irritation Data	Irritant: skin, eye, inhalation and ingestion. Acute eye irritation = Eye irritation, rabbit. Severely irritating. The skin irritancy of limonene in guinea pigs and rabbits is considered moderate and low, respectively. Inhalation: RD50 >1000 ppm. (R) - p-mentha-1,8-diene is not a skin sensitizer. Improper storage and handling can lead to oxidation. The oxidized forms have shown potential to be skin sensitizers.
Toxicity Data	LD ₅₀ , Oral (rat): 4,400 mg/kg. LD ₅₀ , Dermal (rabbit): >2,000 mg/kg. LD ₅₀ , Dermal (mice): 5,600 to 6,600 mg/kg.
Local Effects	Eye, skin and mucous membrane irritation
Target Organs	Eye, skin and mucous membranes
Mutagenic Data	No information.
Reproductive Effects	No information.

SECTION 12 – ECOLOGICAL INFORMATION

Fish toxicity	No data available for specific product. Ingredient : (R) - p-mentha-1,8-diene stated to be LC-0 = 26 mg/l, LC-50 = 33 mg/l, LC-100=43 mg/l Acute toxicity LC50 96 h Fish = < 1 mg/L EC50 48 h
Algae toxicity	No data available for product. Ingredient : (R) - p-mentha-1,8-diene stated to be harmful. Daphnia = < 1 mg/L IC50 75 h Algae = < 1 mg/L
Invertebrates toxicity	No data available for product.
Toxicity to Bacteria	No data available for product.
OECD Biological degradation	Ingredient : (R) - p-mentha-1,8-diene stated to be Marine Pollutant: Classified as slight hazard for water WGK-1. (R) - p-mentha-1,8-diene a biodegradable solvent occurring in nature as the main component of peel oil - 100% in 28 days.
Mobility	Mobile.
General	No data available for specific product. Ingredient : (R) - p-mentha-1,8-diene stated to be LC-0 = 26 mg/l, LC-50 = 33 mg/l, LC-100=43 mg/l Acute toxicity LC50 96 h Fish = < 1 mg/L EC50 48 h

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SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal Methods	Refer to State Land Waste Management Authority. Transfer product residues to a labelled, sealed container for disposal or recovery. Waste disposal must be by an accredited contractor. As with any chemical, do not put down the drain in quantity. The small quantities contained in wash solutions (when used as directed) can generally be handled by conventional sewage systems, septics, and grey water systems. For larger scale use, eg. Commercial laundry operations, a recycled water system is often recommended, or Trade Waste License obtained for disposal to sewer.
Special Precautions	None known.

SECTION 14 – TRANSPORT INFORMATION

UN Number	1993	ADG Classification	Class 3
Shipping Name	FLAMMABLE LIQUID, N.O.S.	ADG Subsidiary Risk	none allocated
Hazchem Code	3[Y]	Packing Group	III
Packaging Method	3.8.3 RT1	Special Provisions	SP109, SP129, SP274
Segregation	Class 3 – Flammable liquid shall not be loaded in the same vehicle or packed in the same freight container with: <ul style="list-style-type: none"> ➤ Class 1, Explosives ➤ Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk ➤ Class 2.3, Toxic Gases ➤ Class 4.2 Spontaneously Combustible Substances ➤ Class 5.1 Oxidising Agents and Class 5.2, Organic Peroxides ➤ Class 6 Toxic Substances (where the flammable liquid is nitromethane) ➤ Class 7 Radioactive Substances. ➤ Foodstuff and foodstuff empties 		

SECTION 15 – REGULATORY INFORMATION

AICS	All ingredients present on AICS.
Labeling Details	
HAZARD	FLAMMABLE, IRRITANT
RISK PHRASES	R10 - Flammable R36/38 – Irritating to skin and eyes. R43 – May cause sensitization by skin contact.
SAFETY PHRASES	S2 - Keep out of reach of children. S16 - Keep away from sources of ignition. S24 - Avoid contact with skin. S37 – Wear suitable gloves. S41 - In case of fire and / or explosion do not breathe fumes. S 45 - In case of accident, or if you feel unwell, seek medical advice immediately (show the label wherever 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.
SUSDP	S5 CAUTION (HYDROCARBON LIQUID)
ADG Code	Class 3 Flammable

SECTION 16 – OTHER INFORMATION

Acronyms	
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons.
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail.
CAS Number	Chemical Abstracts Service Registry Number.
UN Number	United Nations Number.
R-Phrases	Risk Phrases.
HAZCHEM	An emergency action code of numbers and letters which gives information to emergency services.

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NOHSC	National Occupational Health and Safety Commission.		
NTP	National Toxicology Program (USA).		
IARC	International Agency for Research on Cancer.		
AICS	Australian Inventory of Chemical Substances.		
TWA	Time Weighted Average		
STEL	Short Term Exposure Limit		
Literature References	List of Designated Hazardous Substances [NOHSC:10005(1999)]		
	Australian Code For The Transport Of Dangerous Goods By Road And Rail – Sixth Edition.		
	Standard for the Uniform Scheduling of Drugs and Poisons.		
	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]		
	Material Safety Data Sheets – individual raw materials – Suppliers.		
	Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]		
	HSIS – Hazardous Substance Information System – National Worksafe Data Base.		
Revision Information	New Issue to standard : 2nd Edition [NOHSC:2011(2003)].		
Note	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.		
Contact Point	Regulatory Affairs Manager.	Telephone	(07) 3849 7011
Issue Date	NOV 2009	Supersedes Issue Date	SEPT 2003
Note	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.		
<p>This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since ECOCLEAN UTILITY AGENCIES cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.</p>			