

SAFETY DATA SHEET

Purasolve Precision Cleaner

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1. IDENTIFICATION

GHS Product Identifier Purasolve Precision Cleaner

Product Code ESPCC-5, ESPCC-20, ESPCC-200

Company Name Envirofluid

Address 39 Coghlans Road Warrnambool Victoria 3280 Australia

Telephone/Fax Number Tel: 1800 777 580 (8am - 5pm AEST) Fax: 1300 777 580

Emergency phone number 1800 638 556 (24h) / +61 3 5564 6455

E-mail Address info@envirofluid.com

Recommended use of the chemical and restrictions on use

A high flash point and low vapour pressure electronic component cleaner. Slow evaporating general purpose solvent degreaser for longer contact time. Replacement for dangerous aerosols. High flash point (44 °C), low vapour pressure solvent with no overpowering toxic fumes. Highly purified safety solvent that is free of light aromatics.

Additional Information

Replacement for White Spirits, Gun Wash, Kerosene, MEK, Trichloroethylene, Toluene, Triethanolamine, Isopropyl Alcohol. Purasolve Precision Cleaner is hydrophobic. Aromatics, like benzene can absorb water over time - as can chlorinated solvents however Purasolve Precision Cleaner will not absorb water beyond the possible ppb (parts per billion) of aromatics present in the manufacturing process. Parts cleaned with Purasolve Precision Cleaner generally don't rust. The product has a vapour density >4 (air=1), and a vapour pressure <2 mm Hg (25 °C) and it does not emit toxic overpowering fumes. Purasolve Precision Cleaner is a highly purified solvent that is aromatic free.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Aspiration Hazard: Category 1







Flammable Liquids: Category 3 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2 Sensitization - Skin: Category 1

Signal Word (s) DANGER

Hazard Statement (s)

H226 Flammable liquid and vapour.H304 May be fatal if swallowed and enters airways.H317 May cause an allergic skin reaction.H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)

Flame, Exclamation mark, Health hazard, Environment



Precautionary statement – Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

P331 Do NOT induce vomiting.

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

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use carbon dioxide, dry chemical or foam for extinction.

P391 Collect spillage.

Precautionary statement – Storage

P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition

The classification as a carcinogen or mutagen does not apply since the substance contains less than 0.1% w/w benzene (EINECS no 200-753-7)







Ingredients

Name	CAS	Proportion
Naphtha (petroleum), hydrotreated heavy	64742-48-9	0-100 %
D limonene	5989-27-5	5 %
Ingredients determined not to be hazardous		Balance

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Do NOT induce vomiting. Wash out mouth and lips with water. Where vomiting occurs naturally have affected person place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide, dry chemical or foam. Large fires only: water spray or fog.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Specific Hazards Arising From The Chemical

Flammable liquid and vapour. Negligible vapour pressure, high vapour density and evaporation rate <0.1. Vapour /air mixtures unlikely to ignite or cause flashback. Run off to sewer unlikely to create fire or explosion hazard.

Hazchem Code

•3Y







Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use in designated areas with local exhaust ventilation, away from sparks, flames and other ignition sources. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure value assigned for this material. However, the available exposure limits for ingredients are listed below:

Refined mineral oil mist TWA: 5 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Biological Limit Values No biological limits allocated.







Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. A respirator is not needed under normal use. If necessary :Type A filter (BP 171C).

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, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as PVC. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Liquid

Odour Mild citrus odour

Decomposition Temperature Not available

Melting Point Not available

Boiling Point 171 °C (initial)

Solubility in Water Partly miscible







Specific Gravity

0.77

pH Not available

Vapour Pressure Negligible

Vapour Density (Air=1) >4

Evaporation Rate <0.1 (BuAC = 1)

Odour Threshold Not available

Viscosity Not available

Volatile Component 100%

Partition Coefficient: n-octanol/water Not available

Flash Point 44 °C

Flammability Flammable liquid

Auto-Ignition Temperature Not available

Flammable Limits - Lower 0.6%

Flammable Limits - Upper 7.0%

10. STABILITY AND REACTIVITY

Reactivity Reacts with incompatible materials.

Chemical Stability Stable under normal conditions of storage and handling.

Conditions to Avoid Heat, open flames and other sources of ignition.

Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products Thermal decomposition may result in the release

Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

Possibility of hazardous reactions Not available







Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material. The available acute toxicity data for the ingredients is given below.

Acute Toxicity - Oral

D-limonene LD50 (rat): >2000 mg/kg Naphtha (petroleum), hydrotreated heavy LD50 (rat): >4500 mg/kg

Acute Toxicity - Dermal

D-limonene LD50 (rabbit): >5000 mg/kg Naphtha (petroleum), hydrotreated heavy LD50 (rabbit): >1900 mg/kg

Ingestion

May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause pulmonary injury. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling. May cause an allergic skin reaction. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

D-limonene

Skin (rabbit): 500mg/24h moderate

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

D-limonene and Mineral oils, highly-refined are listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.







Aspiration Hazard May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Persistence and degradability

D-limonene Persistence in Water/Soil/Air: HIGH

Mobility D-limonene Mobility in soil: LOW (KOC = 1324)

Bioaccumulative Potential D-limonene Bioaccumulation: HIGH (LogKOW = 4.8275)

Other Adverse Effects Not available

Environmental Protection Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish D-limonene LC50 :0.199mgl/l/96h

Acute Toxicity - Algae D-limonene EC50 : 0.212mg/l/96h Naphtha (petroleum), hydrotreated heavy EC50 : 64mg/l/96h

Acute Toxicity - Other Organisms D-limonene EC50 (Crustacea): 0.051mg/l/384h EC50 (Crustacea): 0.36mgl/l/48h NOEC (Crustacea): 0.074mg/l/48h

13. DISPOSAL CONSIDERATIONS

Disposal considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Advise flammable nature. Empty containers may contain flammable residues. Do not cut, puncture or weld on or near containers. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected.







14. TRANSPORT INFORMATION

Transport Information

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1: Explosives

- Division 2.1: Flammable Gases.

(Division 2.1 and Class 3 are incompatible in transport if both are in tanks or other receptacles with a capacity individually exceeding 500 L)

- Division 2.3: Toxic Gases

- Division 4.2: Spontaneously Combustible Substances

- Division 5.1: Oxidising substances
- Division 5.2: Organic Peroxides

- Class 6: Toxic or Infectious Substances

(where the flammable liquid is nitromethane)

- Class 7: Radioactive materials unless specifically exempted.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 1993

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (CONTAINS D-LIMONENE) (MARINE POLLUTANT) DG Class: 3 Packaging Group: III EMS No.: F-E, S-E Special provisions: 223, 274, 955

Air Transport (ICAO/IATA): Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air. UN No: 1993 Proper Shipping Name: flammable liquid, n.o.s. (Contains: d-limonene) Class: 3 Packing Group: III Packaging Instructions (passenger & cargo): 355 Packaging Instructions (cargo only): 366 Hazard Label: Flammable liquid Special Provisions: A3

U.N. Number 1993

UN proper shipping name

FLAMMABLE LIQUID, N.O.S.(Contains D-Limonene)

Transport hazard class(es) 3 Packing Group

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Hazchem Code •3Y

Not available

Special Precautions for User Not available

IERG Number 14 IMDG Marine pollutant Yes Transport in Bulk

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S5

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS reviewed: May 2017 Supersedes: December 2012

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

END OF SDS

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