Section 1 - Identification of The Material and Supplier

Ensystex Australasia Pty Ltd
Unit 3, The Junction Estate
AUBURN, NSW 2144
13 35 36 (all hours)

Ensystex New Zealand Ltd
17C Corinthian Drive
Albany, Auckland 0752
0800 ENSYSTEX (0800 367 978)

Chemical nature: Pyrethrins are found naturally in some chrysanthemum flowers.

Trade Name: **ECOTHOR ACTIVE NATURE® EXONET**

Product Use: Natural insecticide for use as per the product label.

Creation Date: **August, 2019**

This version issued: **August, 2020** and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as:

Acute Tox. 4 H332 Harmful if inhaled

Eye Irritation 2 H319 Causes serious eye irritation

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects

Not classified as hazardous according to the criteria of SWA.

SUSMP Classification: None allocated.
ADG Classification: Class 9: Miscellaneous Dangerous Goods.
UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

GHS Signal word: WARNING

HAZARD STATEMENT:

H332: Harmful if inhaled.
H319: Causes serious eye irritation
H411: Toxic to aquatic life with long lasting effects.

PREVENTION

P102: Keep out of reach of children.
P261: Avoid breathing mist/vapours/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves / eye protection.

RESPONSE

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

STORAGE

P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Emergency Overview

Physical Description & Colour: Liquid.
Odour: Faint, characteristic odour.
Major Health Hazards: Irritating in contact with eyes.

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Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc., %	TWA (mg/m^3)	STEL (mg/m^3)
Natural pyrethrins	8003-34-7	1	not set	not set
Polyalkyleneoxide modified heptamethyltrisiloxane	67674-67-3	80 - 99	not set	not set
Other non-hazardous ingredients		to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The SWA TWA exposure value is the 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.

Skin Contact: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Rinse mouth with plenty of water and contact a Poisons Information Centre or call a doctor. If occurs, keep victim's head low to avoid getting the product into respiratory tract.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: In case of small fires use foam, snow or powder extinguisher. For large fires use foam or water mist.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point:	> 100 °C.	**Upper Flammability Limit:**	Not applicable.
Lower Flammability Limit:	Not applicable.	**Autoignition temperature:**	No data.
Flammability Class:	Not applicable.		

Section 6 – Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you

use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 – Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under “Storage” should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under “Incompatibilities” in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging – there may be further storage instructions on the label. Store at temperatures of 0 to 35 °C. Avoid water and humidity during storage.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501** set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should be used in a well-ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: No special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves and protective clothing when skin contact is likely.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: Usually, no respirator is necessary when using this product. If there is a significant chance that high concentrations of vapours are likely to build up in the area, we recommend that you use a half mark with SA type filter. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Liquid.
Odour:	Faint, characteristic odour.
Boiling Point:	No data.
Freezing/Melting Point:	No data.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	1.0 approx.
Water Solubility:	insoluble, emulsifies.
pH:	No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid: Protect this product from high temperature, humidity. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities: No data.
Fire Decomposition: This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form carbon oxides, silica oxides, formaldehyde. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: The acute oral and dermal LD_{50} of product is greater than 5,000 mg/kg of body weight in rats. It classified as harmful if inhaled and severely irritating to the eye. It is not a skin contact sensitizer.
Product does not contain any compounds with germ cell mutagenicity or carcinogenic or reprotoxic hazard. Based on available data, the classification criteria of STOT-SE, STOT-RE and aspiration hazard are not met.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

Section 12 - Ecological Information

This product is toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.
Ecotoxicity: Information on product compound (polymeric silica compounds):
Fish: Rainbow trout (*Oncorhynchus mykiss*): LC_{50} (96 h) 4.5 mg/L, NOEC (96 h) 3.2 mg/L
Aquatic invertebrates: Daphnia (*Daphnia magna*): EC_{50} (48 h) 24 mg/L, NOEC (48 h) 5.6 mg/L
Persistence and degradability: Siloxanes are removed from water by sedimentation and adsorption onto sludge. In soil siloxanes undergo degradation.
Bioaccumulative potential: No data.
Mobility in soil: No data.
Other adverse effects: No data.

Section 13 - Disposal Considerations

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.
Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

Section 14 - Transport Information

UN number:	3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyalkyleneoxide modified heptamethyltrisiloxane contained)
Transport class:	9
Packing group:	III
Environmentally hazardous:	Yes

According to AU01 of Australian Special Provision, Environmentally Hazardous Substance meeting the descriptions of UN3082 is not subject to this Code (ADG 07) when transported by road and rail in;

a) packaging that do not incoperater a receptacle exceeding 500 kg(L); or
b) IBCs

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

If there is any conflict between this SDS and the registered label, instructions on the label prevail.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (December 2011)