

Section 1 - Identification of the Material and Supplier

Conquest Crop Protection Pty Ltd
Level 1, 4 Collingwood St
Osborne Park, WA 6017

Phone: (08) 9347 0500 (Business hours)

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Emergency (24 Hours): 1800 033 111 (Australia wide)

Chemical nature: Suspension concentrate containing alpha-cypermethrin
Trade Name: Conquest Alpha Forte 250 SC Insecticide
APVMA Code: 65245
Product Use: Agricultural insecticide for use as described on the product label.
Creation Date: August, 2016
This version issued: April, 2017 and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xi, Irritating. T, Toxic. Hazardous according to the criteria of SWA.

Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg (L) or less; or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG/IMSBC respectively. See details below and in Section 14 of this SDS.

Note: differing Hazard Criteria of SWA and TGA may result in seeming inconsistencies between SDS and label.

SUSMP Classification: S6

ADG Classification: Class 9: Miscellaneous Dangerous Goods.

UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.



GHS Signal word: DANGER

Acute Toxicity Oral Category 3

Specific Target Organ Toxicity - Single Exposure Category 3

Specific Target Organ toxicity - repeated exposure Category 2

Hazardous to aquatic environment Short term/Chronic Category 1

HAZARD STATEMENT:

H301: Toxic if swallowed.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

H410: Very toxic to aquatic life with long lasting effects.

PREVENTION

P260: Do not breathe fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well ventilated area.

P273: Avoid release to the environment.

RESPONSE

P314: Get medical advice or attention if you feel unwell.

P362: Take off contaminated clothing and wash before reuse.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P391: Collect spillage.

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P370+P378: In case of fire, use carbon dioxide, dry chemical, foam.

STORAGE

P405: Store locked up.

P410: Protect from sunlight.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL

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

Emergency Overview

Physical Description & colour: White liquid.

Odour: No data.

Major Health Hazards: The onset of symptoms varies depending upon such factors as the route of absorption and quantity involved. In patients with occupational poisoning, skin symptoms usually develop within 4-6 hours after exposure, with systemic symptoms occurring as late as 48 hours after exposure. Paraesthesia of the facial skin can develop approximately 30 minutes after exposure and does not usually last beyond 24 hours when exposure is terminated. Following ingestion, the initial symptoms involve the gastrointestinal tract, developing 10-60 minutes after exposure. Patients suffering from acute oral poisoning usually develop prominent digestive symptoms such as epigastric pain, nausea and vomiting. Severely poisoned patients may have frequent convulsive attacks, coma, or pulmonary oedema. The prognosis is good if treated, with usually full recovery even in severely poisoned patients. (The hospitalisation period is usually longer than 4 weeks). Death may occur from respiratory paralysis. Toxic if swallowed, respiratory tract irritant.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, g/L	TWA (mg/m ³)	STEL (mg/m ³)
Alpha-cypermethrin	67375-30-8	250	not set	not set
Water	7732-18-5	>550	not set	not set
Other non hazardous ingredients	secret	to 1 L	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 1126 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 irritation occurs, contact a Poisons Information Centre, or call a doctor. 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. In severe cases, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

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 little risk of an explosion from this product if commercial quantities are 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.

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Emergency Phone: 1800 0333 111 (any time)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam. Only use a soft stream water fog if no alternatives are available. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Flash point: Will not burn until water component is driven off.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Does not burn.

Flammability Class: Does not burn.

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 chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include no specific manufacturer recommendations. Use impermeable gloves with care. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup 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).

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. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains. 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: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Check packaging - there may be further storage instructions on the label.

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

The ADI for Alpha-cypermethrin is set at 0.05mg/kg/day. The corresponding NOEL is set at 4.7mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, June 2014.

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: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

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Skin Protection: Cover all areas of skin likely to come into contact with this product. We suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

Protective Material Types: There is no data that enables us to recommend any type except that it should be impermeable.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	White liquid.
Odour:	No data.
Boiling Point:	Approximately 100°C at 100kPa (water component).
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	Water component.
Vapour Pressure:	2.37 kPa at 20°C (water vapour pressure).
Vapour Density:	As for water.
Specific Gravity:	1.08 at 20°C
Water Solubility:	Miscible.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	As for water.
Coeff Oil/water distribution:	No data
Autoignition temp:	Does not burn.

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: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong oxidising agents.

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 nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. 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:

Acute Toxicity: Synthetic pyrethroid compounds vary in their toxicity as do the natural pyrethrins. Inhaling high levels of pyrethrum may bring about asthmatic breathing, sneezing, nasal stuffiness, headache, nausea, incoordination, tremors, convulsions, facial flushing and swelling, and burning and itching sensations. The most severe poisonings have been reported in infants, who are not able to efficiently break down pyrethrum. The lowest lethal oral dose of pyrethrum is 750 mg/kg for children and 1,000 mg/kg for adults. Oral LD₅₀ values of pyrethrins in rats range from 200 mg/kg to greater than 2,600 mg/kg. Some of this variability is due to the variety of constituents in the formulation. Mice have a pyrethrum oral LD₅₀ of 370 mg/kg. Animals exposed to toxic amounts may experience tongue and lip numbness, nausea, and diarrhoea. Symptoms may also include incoordination, tremors, convulsions, paralysis, respiratory failure, and death. Pyrethroids can cause two quite different responses at near lethal doses in rats; aggressive sparring and a sensitivity to external stimuli progressing to tremors is the one response and pawing and burrowing behaviour, and salivation leading to chronic seizures is the other. Human response to these two different types of Pyrethroids has not yet been evaluated. Recovery from serious poisoning in mammals is fairly rapid. Rats and rabbits are not affected by large dermal applications. On broken skin, pyrethrum produces irritation and sensitization, which is further aggravated by sun exposure.

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Chronic Toxicity: Absorption of pyrethrum through the stomach and intestines and through the skin is slow. However, humans can absorb pyrethrum more quickly through the lungs during respiration. Response appears to depend on the pyrethrum compound used. Overall, pyrethrins and Pyrethroids are of low chronic toxicity to humans and the most common problems in humans have resulted from the allergenic properties of pyrethrum. Patch tests for allergic reaction are an important tool in determining an individual's sensitivity to these compounds. Many of the natural and synthetic compounds can produce skin irritation, itching, pricking sensations and local burning sensations. These symptoms may last for about two days.

Reproductive Effects: Rabbits that received pyrethrins orally at high doses during the sensitive period of pregnancy had normal litters. A group of rats fed very high levels of pyrethrins daily for three weeks before first mating had litters with weanling weights much lower than normal. Overall, pyrethrins appear to have low reproductive toxicity.

Teratogenic Effects: The one rabbit reproduction study performed showed no effect of pyrethrins on development of the offspring. More information is needed.

Mutagenic Effects: No information was found.

Carcinogenic Effects: No carcinogenic status has been established for pyrethrins or pyrethroids.

Organ Toxicity: In mammals, tissue storage has not been recorded. At high doses, pyrethrum can be damaging to the central nervous system and the immune system. When the immune system is attacked by pyrethrum, allergies can be worsened. Animals fed large doses of pyrethrins may experience liver damage. Rats fed pyrethrin at high levels for two years showed no significant effect on survival, but slight, definite damage to the livers was observed. Inhalation of high doses of pyrethrum for 30 minutes each day for 31 days caused slight lung irritation in rats and dogs.

Fate in Humans and Animals: Pyrethrins, pyrethroids, and their metabolites are not known to be stored in the body nor excreted in the milk. The urine and faeces of people given oral doses of pyrethrum contain chrysanthemumic acid and other metabolites. These metabolites are less toxic to mammals than are the parent compounds. Pyrethrins I and II are excreted unchanged in the faeces. Other pyrethrum components undergo rapid destruction and detoxification in the liver and gastrointestinal tract.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Alpha-cypermethrin	Conc>=25%: T; R25; R48/22; R37
<ul style="list-style-type: none">Acute toxicity - category 3Specific target organ toxicity (repeated exposure) - category 2Specific target organ toxicity (single exposure) - category 3Hazardous to the aquatic environment (acute) - category 1Hazardous to the aquatic environment (chronic) - category 1	

Potential Health Effects

Inhalation:

Short term exposure: This product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased if treatment is prompt.

Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short term exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. Dermal contact may result in irritation.

Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short term exposure: May irritate the eyes, but symptoms are likely to cease once exposure has stopped.

Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short term exposure: Significant oral exposure is considered to be unlikely. Available data shows that this product is toxic; symptoms of overexposure include tremors, loss of motor control, numbing, burning and tingling. May cause irritation if swallowed.

Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

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

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

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

Section 12 - Ecological Information

This product is toxic to aquatic organisms. This product is toxic to bees.

Pyrethrin is extremely toxic to aquatic life, such as bluegill and lake trout while it is slightly toxic to bird species, such as mallards. Toxicity increases with higher water temperatures and acidity. Natural pyrethrins are highly fat soluble, but are easily degraded and thus do not accumulate in the body. These compounds are toxic to bees also. Because pyrethrin-I, pyrethrin-II, and allethrin have multiple sites in their structures that can be readily attacked in biological systems, it is unlikely that they will concentrate in the food chain.

ENVIRONMENTAL FATE

Two pyrethroid synthetic insecticides, permethrin and cypermethrin, break down in plants to produce a variety of products. Pyrethrins have little residual effect. In stored grain, 50% or more of the applied pyrethrins disappear during the first three or four months of storage. At least 80% of what remains is removed by handling, processing, and cooking. Pyrethrins alone provide limited crop protection because they are not stable. As a result, they are often combined with small amounts of antioxidants to prolong their effectiveness. Pyrethrum compounds are broken down in water to nontoxic products. Pyrethrins are inactivated and decomposed by exposure to light and air. Pyrethrins are also rapidly decomposed by mild acids and alkalis. Stored pyrethrin powders lose about 20% of their potency in one year. As the pyrethrins are purified, their stability decreases; thus, pure pyrethrin-I and pyrethrin-II are the least stable of the pyrethrins. Purified pyrethrins are very expensive and are only available for laboratory uses.

Section 13 - Disposal Considerations

Disposal: 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

Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG/IMSBC when carried by Air or Sea transport (see details below).

UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazchem Code: 2XE

Special Provisions: 179, 274, 331, 335, AU01

Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Dangerous Goods Class: Class 9: Miscellaneous Dangerous Goods.

Packing Group: III

Packing Instruction: P001, IBC03, LP01

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

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.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS Australian Inventory of Chemical Substances

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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" (Feb 2016)

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<http://www.kilford.com.au/> Phone (02)9251 4532

End of SDS

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