



Arysta LifeScience

SAFETY DATA SHEET

ORTHENE XTRA INSECTICIDE

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Orthene Xtra Insecticide

PRODUCT USE: Agricultural insecticide for use as described on the product label.

MANUFACTURER

Arysta LifeScience North America Corporation
15401 Weston Parkway, Suite 150
Cary, NC 27513

DISTRIBUTOR

Cheminova Australia Pty Ltd
12 Julius Avenue
North Ryde NSW 2113

Free Call: 1800 624 597 (BH)

Emergency Phone: 1800 033111 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Hazardous according to the criteria of ASCC Australia.
Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R22. Harmful if swallowed.

Safety Phrases: S20. When using, do not eat or drink.

SUSDP Classification: S6

ADG Classification: None allocated. Not a Dangerous Good.

UN Number: None allocated

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Acephate	30560-19-1	97	not set	not set
Other non hazardous ingredients	secret	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 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 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

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.

If swallowed, splashed on skin or inhaled, contact a Poisons Information Centre or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed, use of activated charcoal may be advised.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. See instructions above about treatment with atropine.

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

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor. See instructions above about treatment with atropine.

Medical centers should have Atropine and activated charcoal available

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product are likely to be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.

Fire Fighting: When fighting fires involving significant quantities of this product, wear a fully encapsulated splash suit complete with self contained breathing apparatus.

Flash point: No data

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: No data.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. 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 MSDS 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 MSDS 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 class of poison. Make sure that containers of this product are kept tightly closed. Keep containers of this product in a well ventilated area. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Check packaging - there may be further storage instructions on the label.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment: Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

ASCC Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by ASCC for this product.

The ADI for acephate is set at 0.003mg/kg/day. The corresponding NOEL is set at 0.22mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, April 2008.

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

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

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

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

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour:	White or blue pellets.
Odour:	Strong cabbage-like odour.
Boiling Point:	Not available.
Freezing/Melting Point:	Technical Acephate melts in a range 82-89°C
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	1.35
Water Solubility:	790g/L at 20°C
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water distribution:	-0.89 (log P octanol/water)
Autoignition temp:	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: This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry. Protect this product from light.

Incompatibilities: strong oxidising agents.

Fire Decomposition: **Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Oxides of phosphorus and other phosphorus compounds. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions, and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.**

Polymerisation: This product is unlikely to undergo polymerisation processes.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity: An information profile for Acephate is available at <http://extoxnet.orst.edu/pips/ghindex.html>

Acute Toxicity: The acute oral LD₅₀ for technical grade acephate in female rats is 866 mg/kg; 945 mg/kg for male rats; 361 mg/kg for mice; 350 mg/kg for mallard ducks; 852 mg/kg for chickens; and 140 mg/kg for ringneck pheasants. The oral LDLo (Lethal Dose Low - lowest dose of a substance other than LD₅₀ introduced by any route other than inhalation, over any given period of time in one or more divided portions and reported to have caused death in humans or animals) for dogs is 681 mg/kg. The 96 hour LC₅₀ for rainbow trout is >1,000 mg/l; 2,050 mg/l for bluegill fish; 1,725 mg/l for largemouth black bass; 2,230 mg/l for channel catfish; and 9550 mg/l for goldfish. The toxicity of acephate to rainbow trout increased with increasing temperature.

Chronic Toxicity: In 2-year feeding trials, dogs exhibited depression of cholinesterase at 100 mg/kg diet (maximum dose level) of acephate but no other significant effects; rats showed depression of cholinesterase but no effect on weight gain or pathological effect at 30 mg/kg diet.

Reproductive Effects: Acephate is considered a foetotoxin (can poison the foetus) and there is some evidence of hormonal effects.

Teratogenic Effects: No effects were observed in 2-year feeding trials on dogs.

Mutagenic Effects: No effects were observed in 2-year feeding trials on dogs.

Carcinogenic Effects: No effects were observed in 2-year feeding trials in dogs.

Organ Toxicity: Exposure effects of acephate in humans can include: cardiac responses (bradycardia/tachycardia, heart block), central nervous system impairment, eye problems (miosis/mydriasis, loss of accommodation, ocular pain, sensation of retrobulbar pressure, tearing, dark or blurred vision, conjunctiva hyperaemia, cataracts), gastrointestinal problems (abdominal cramps, heart burn, hyperperistalsis), respiratory effects (apnea, dyspnoea, hypopnoea, atelectasis, bronchoconstriction, bronchopharyngeal secretion, chest tightness, productive cough, rales/ronchi, wheezing, pulmonary oedema, laryngeal spasms, rhinorrhea, oronasal frothing) and death due to respiratory failure.

Fate in Humans and Animals. Exposure to acephate can result in alkyl phosphates in urine. There is no data to hand indicating any particular target organs.

SECTION 12: ECOLOGICAL INFORMATION

This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Effects on Birds: Acephate is considered moderately toxic to upland game birds. The LD₅₀ for acephate in mallard ducks is 350 mg/kg; 140 mg/kg in pheasants; > 5,000 ppm for the mallard and 1,280 ppm for the bobwhite quail. Acephate may affect behaviour and breeding success.

Effects on Aquatic Organisms: The compound is considered relatively non-toxic to fish with an LC₅₀ for goldfish of 9,550 mg/l and rainbow trout >1,000 mg/l over 96 hours.

Effects on Other Animals (Nontarget species): Acephate is considered toxic to bees. The LC₅₀ for bees is 1.2 µg/bee.

ENVIRONMENTAL FATE

Breakdown of Chemical in Soil and Groundwater: Acephate dissipates rapidly with half-lives of <3 and 6 days in aerobic and anaerobic soils, respectively. The major metabolite was CO₂ in both soil types.

Breakdown of Chemical in Surface Water: No information was currently available.

Breakdown of Chemical in Vegetation: Acephate is quickly absorbed, translocated, and transformed in pine seedlings and cotton plants. The chemical was metabolized via cleavage of the amide bond to form methamidophos and an unknown, but insecticidally active compound, which were identified in the roots, stems, and leaves.

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.

SECTION 14: TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

SECTION 15: REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

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 (7 th edition)
AICS	Australian Inventory of Chemical Substances
ASCC	Office of the Australian Safety and Compensation Council
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
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct. Contact Arysta LifeScience North America Corporation at (919) 678-4900 to determine if additional data and information have become available since the issue date.

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