

Product name: Zorvec™ Enicade™ Fungicide**Issue Date:** 14.09.2021

PRODUCTION AGRISCIENCE (AUSTRALIA) PTY LTD encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container.

SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product name: Zorvec™ Enicade™ Fungicide**Recommended use of the chemical and restrictions on use****Identified uses:** End use fungicide product. Do not use product for anything outside of the above specified uses.**COMPANY IDENTIFICATION**

PRODUCTION AGRISCIENCE (AUSTRALIA) PTY LTD
LEVEL 9, 67 ALBERT AVENUE
CHATSWOOD NSW 2067
AUSTRALIA

Customer Information Number:

1800-700-096

aucustomerservice@corteva.com

EMERGENCY TELEPHONE NUMBER**24-Hour Emergency Contact:** +61 2 9474 7350**Local Emergency Contact:** 1800-370-754**For advice, contact a doctor (at once) or the Australian Poisons Information Centre:** 131 126**Transport Emergency Only Dial** 000

SECTION 2: HAZARD(S) IDENTIFICATION

GHS Classification

Flammable liquids – Category 4

Skin sensitisation – Category 1

Short-term (acute) aquatic hazard - Category 1

Long-term (chronic) aquatic hazard - Category 1

Endpoints which are not classified, cannot be classified or are not applicable, are not shown.

GHS label elements**Hazard pictograms**Signal word: **WARNING!**

Hazard statements

Combustible liquid.
May cause an allergic skin reaction.
Very toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention**

Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/ eye protection/ face protection.

Response

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before re-use.
In case of fire: Water spray, Dry chemical, Foam, Carbon dioxide (CO₂).
Collect spillage.

Disposal

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

Other hazards

No data available

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS, IN ACCORDANCE WITH SCHEDULE 8

This product is a mixture.

Component	CASRN	Concentration
Oxathiapiprolin	1003318-67-9	10.2 %
Balance	Not available	89.8 %

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. If poisoning occurs, contact a doctor or Poisons Information Centre. In Australia 13 11 26.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. If eye irritation persists, consult a specialist. Call a poison control center or doctor for treatment advice.

Ingestion: No specific intervention is indicated as the compound is not likely to be hazardous. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Hazchem code: •3Z

Suitable extinguishing media: Water spray, Dry chemical, Foam, Carbon dioxide (CO₂)

Unsuitable extinguishing media: High volume water jet, (contamination risk)

Special hazards arising from the substance or mixture

Hazardous combustion products: No information available

Unusual Fire and Explosion Hazards:

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

On small fires: If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/ tanks with water spray.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible.

Small spills: Soak up with sawdust, sand, oil dry or other absorbent material. Never return spills in original containers for re-use. Dispose of in accordance with local regulations. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. See Section 13, Disposal Considerations, for additional information.
Large spills: Contact Corteva Agriscience for clean-up assistance.

SECTION 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling: Keep out of reach of children. Keep away from heat and sources of ignition. Avoid contact with eyes, skin and clothing. Wash hands with soap and water after handling. Remove clothing/PPE immediately if material gets inside. Wash contaminated clothing before re-use. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Observe label precautions. Keep out of the reach of children. DO NOT store for prolonged periods in direct sunlight.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure limits have not been established for those substances listed in the composition, if any have been disclosed.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will

depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. The following should be effective types of air-purifying respirators: Organic vapour cartridge with a particulate pre-filter.

Other Information: Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and face protection – Guidelines.

AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.

AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.

AS/NZS 2161: Occupational protective gloves.

AS/NZS 2210: Occupational protective footwear.

AS/NZS 4501: Occupational protective clothing Set

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid
Colour	Off-white
Odour	Oily characteristic
Odour Threshold	No information available
pH	6.5 (1 % solution)
Melting point/range	Not applicable
Freezing point	No information available
Boiling point (760 mmHg)	No information available
Flash point	> 80 °C
Evaporation Rate (Butyl Acetate = 1)	No information available
Flammability (solid, gas)	No information available
Lower explosion limit	No information available
Upper explosion limit	No information available
Vapour Pressure	No information available
Relative Vapour Density (air = 1)	No information available
Relative Density (water = 1)	No information available
Water solubility	Insoluble
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	335 °C
Decomposition temperature	No information available
Kinematic Viscosity	No information available
Explosive properties	No test data available
Oxidizing properties	The product is not oxidizing.
Density	0.99 g/cm ³
Molecular weight	No information available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No information available

Chemical stability: Stable at normal use temperatures and storage conditions.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Elevated temperature.

Incompatible materials: No materials to be especially mentioned.

Hazardous decomposition products: No information available.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity**Acute oral toxicity**

As product: LD50, Rat > 5,000 mg/kg

Acute dermal toxicity

As product: LD50, rat > 5,000 mg/kg

Acute inhalation toxicity

As product: LC50/4 h/Rat (dust/mist): > 5.0 mg/l. This substance has no acute inhalation toxicity.

Skin corrosion/irritation

As product: Rabbit. Mild skin irritation

Serious eye damage/eye irritation

As product: Rabbit. No eye irritation

Respiratory or skin sensitisation

As product: Guinea pig. May cause sensitisation by skin contact. Buehler test.

Specific Target Organ Systemic Toxicity (Single Exposure)

For active ingredient. Oxathiapiprolin. The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For active ingredient. Oxathiapiprolin. Repeated dose toxicity:

Oral/Rat: No toxicologically significant effects were found.

Oral/Dog: No toxicologically significant effects were found.

Oral/Mouse: No toxicologically significant effects were found.

Carcinogenicity

For active ingredient. Oxathiapiprolin. Animal testing did not show any carcinogenic effects

Reproductive toxicity

For active ingredient. Oxathiapiprolin.

Reproductive toxicity: No toxicity to reproduction. Slight delays in maturation observed in rats.

Teratogenicity: Animal testing showed no developmental toxicity.

Mutagenicity

For active ingredient. Oxathiapiprolin. Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.

Aspiration Hazard

The mixture does not have properties associated with aspiration hazard potential.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity**Acute and prolonged toxicity to fish**

For the product. LC50/96 h/Oncorhynchus mykiss (rainbow trout): > 10 mg/l.

Acute toxicity to aquatic invertebrates

As product. EC50/48 h/Daphnia magna (Water flea): > 9.62 mg/l

Chronic toxicity to aquatic invertebrates

For active ingredient. Oxathiapiprolin. Flow-through test/NOEC/32 d/Americamysis bahia (mysid shrimp): 0.058 mg/l. Information source: Internal study report

Toxicity to aquatic plants

As product. EC50/72 h/Pseudokirchneriella subcapitata (green algae): > 3.5 mg/l

Persistence and degradability

For active ingredient. Oxathiapiprolin. Not readily biodegradable

Bioaccumulative potential

No information available.

Mobility in Soil

No information available

Other adverse effects

No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: Do not re-use empty containers. Do not contaminate ponds, waterways or ditches with chemical or used container. Triple rinse (or equivalent) the container. Add rinsing's to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture, and bury empty

containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: TRANSPORT INFORMATION

ADG

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oxathiapiprolin)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Oxathiapiprolin

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oxathiapiprolin)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Oxathiapiprolin
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oxathiapiprolin)
UN number	UN 3082
Class	9
Packing group	III

Hazchem code: •3Z

Further information:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the Australian Code for the Transport of Dangerous Goods (ADG). This applies when transported by road or rail in packaging's that do not incorporate a receptacle exceeding 500 kg(L) or IBCs per ADG Special Provision AU01.

Marine Pollutants in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code and IATA special provision A197.

This information is not intended to convey all specific regulatory or operational requirements/ information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

Poison Schedule: None allocated
APVMA Approval Number: 68375

SECTION 16: ANY OTHER RELEVANT INFORMATION

Revision

Identification Number: / A143 / Issue Date: 14.09.2021 / Replaces: 10.12.2019

Code: B13124414

Sections amended: All

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;

vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

PRODUCTION AGRISCIENCE (AUSTRALIA) PTY LTD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.