

Product name: KOCIDE® BLUE XTRA® Fungicide**Issue Date:** 14.09.2021

PRODUCTION AGRISCIENCE (AUSTRALIA) LIMITED 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: Kocide® Blue Xtra® Fungicide**Recommended use of the chemical and restrictions on use****Identified uses:** End use fungicide product**COMPANY IDENTIFICATION**

PRODUCTION AGRISCIENCE (AUSTRALIA) LIMITED
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

Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Serious eye damage/eye irritation	:	Category 2A
Short-term (acute) aquatic hazard	:	Category 2
Long-term (chronic) aquatic hazard	:	Category 1

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

Hazard statements

Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention**

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear eye protection/ face protection.

Response

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Disposal

Collect spillage.
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

Component	CASRN	Concentration
Copper dihydroxide	20427-59-2	53.8 %
Limestone	1317-65-3	10 - 15%
Polyacrylic Acid	9003-01-4	3 - 10%
Tetrasodium pyrophosphate	7722-88-5	3 - 10%
Quartz	14808-60-7	0.3 - 1%
Other Ingredients		3 - 10%

SECTION 4: FIRST AID MEASURES**Description of first aid measures**

If poisoning occurs, contact a doctor or Poisons Information Centre. In Australia 13 11 26. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Remove person to fresh air. If signs/symptoms continue, get medical attention. Artificial respiration and/or oxygen may be necessary. Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. 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. Call a poison control center or doctor for treatment advice.

Ingestion: Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Call a poison information centre or doctor for treatment advice.

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. Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: FIREFIGHTING MEASURES

Hazchem code: 2Z

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: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Unusual Fire and Explosion Hazards: None known.

Advice for firefighters

Fire Fighting Procedures: Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Control Runoff. (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: Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.

Use personal protective equipment.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12: Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up: Clean-up methods - large spillage Prevent further leakage or spillage. Use approved industrial vacuum cleaner for removal. Shovel into suitable container for disposal. Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of in accordance with local regulations.

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

Precautions for safe handling: Avoid contact with eyes, skin, and clothing. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air. See Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a cool, dry, well-ventilated area. Store in original container. Keep away from direct sunlight. Do not store near food, foodstuffs, drugs or potable water supplies. Keep out of reach of children.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure limits are listed below if they exist.

Component	Regulation	Type of listing	Value/Notation
Limestone	AU OEL	TWA (Calcium carbonate)	10 mg/m3
Tetrasodium pyrophosphate	AU OEL	TWA	5 mg/m3
Quartz	AU OEL	TWA (Respirable dust)	0.1 mg/m3
	ACGIH	TWA (Silica; Respirable fraction)	0.025 mg/m3

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 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: Wear protective eyewear to prevent contact with this substance.

Skin protection: Wear protective clothing such as gloves, apron, boots, or coveralls, as appropriate.

Hand protection: 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: Wear clean, body-covering clothing.

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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved particulate respirator.

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: Recommended practices for occupational eye protection.

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	Solid, granular
Colour	Blue
Odour	Characteristic copper odour
Odour Threshold	No data available
pH	9.1 (10 g/l)
Melting point/range	No test data available
Freezing point	No test data available
Boiling point (760 mmHg)	No test data available
Flash point – closed cup	No test data available
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Does not sustain combustion
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapour Pressure	No test data available
Relative Vapour Density (air = 1)	No test data available
Relative Density (water = 1)	1.0417 g/cm ³
Water solubility	0.0029 g/l
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	340 °C
Decomposition temperature	No test data available
Kinematic Viscosity	No test data available
Explosive properties	No

Oxidizing properties	The product is not oxidizing.
Molecular weight	No data 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 under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Temperature: > 140°C. Avoid extreme heat..

Incompatible materials: No information available.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include trace amounts of: Copper oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity

As product: LD50, Rat > 1,346 mg/kg.

Acute dermal toxicity

As product: LC50, Rabbit > 5,000 mg/kg.

Acute inhalation toxicity

As product: LC50 /4 h/Rat (dust/mist): 1.311 mg/l

Skin corrosion/irritation

As product: Rabbit: No skin irritation

Serious eye damage/eye irritation

As product: Rabbit: Irritating to eyes

Sensitization

As product: Guinea pig: Animal test did not cause sensitization by skin contact.

Specific Target Organ Systemic Toxicity (Single Exposure)

For other ingredients: Limestone: The substance or mixture is not classified as specific target organ toxicant, single exposure.

For other ingredients: Tetrasodium pyrophosphate. The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

As product: The substance or mixture is not classified as specific target organ toxicant, repeated exposure. Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

Carcinogenicity

As product: Not classifiable as a human carcinogen.

Reproductive toxicity

For the active ingredient: Copper dihydroxide. Reproductive toxicity: No toxicity to reproduction. Animal testing did not show any effects on fertility. Information given is based on data obtained from similar substances. Teratogenicity: The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions. Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

For other ingredients: Limestone: Reproductive toxicity: No toxicity to reproduction. Animal testing showed no reproductive toxicity. Information given is based on data obtained from similar substances. Teratogenicity: Animal testing showed no developmental toxicity. Information given is based on data obtained from similar substances.

Mutagenicity

For the active ingredient: Copper dihydroxide. Weight of evidence does not support classification as a germ cell mutagen. Information given is based on data obtained from similar substances.

For other ingredients: Limestone: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Overall weight of evidence indicates that the substance is not mutagenic. Information given is based on data obtained from similar substances.

For other ingredients: Tetrasodium pyrophosphate. Did not cause genetic damage in cultured bacterial cells.

Aspiration Hazard

No aspiration toxicity classification.

Other

For the active ingredient: Copper dihydroxide. Repeated dose toxicity: No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification. The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral/Rat: Liver effects, Kidney effects, microcytic anemia. Information given is based on data obtained from similar substances.

Oral - feed/Rat: Spleen effects. Information given is based on data obtained from similar substances.

For other ingredients: Limestone: Repeated dose toxicity:

Ingestion/Rat 48 d. NOAEL: > 1,000 mg/kg. Method: OECD Test Guideline 422

No toxicologically significant effects were found. Information given is based on data obtained from similar substances.

Inhalation/Rat 90 d dust/mist. NOAEL: > 0.212 mg/l. Method: OECD Test Guideline 413

No toxicologically significant effects were found. Information given is based on data obtained from similar substances

For other ingredients: Tetrasodium pyrophosphate. Repeated dose toxicity:

Ingestion/Rat: NOAEL: 500 mg/kg. Method: OECD Test Guideline 408

No toxicologically significant effects were found.

For other ingredients: Quartz. Repeated dose toxicity:

Inhalation/Rat: Fluid retention in lungs (pulmonary oedema), lung effects, Inflammation, Chronic lung disease, Fibrosis.

SECTION 12: ECOLOGICAL INFORMATION

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

Ecotoxicity

Acute and prolonged toxicity to fish

As product: LC50/96 h/Oncorhynchus mykiss (rainbow trout): 4.79 mg/l

For the active ingredient: Copper dihydroxide. Chronic toxicity: NOEC/90 d: 0.0017 mg/l

Acute toxicity to aquatic invertebrates

EC50/48 h/Daphnia (water flea): 1.61 mg/l

Chronic toxicity to aquatic invertebrates

As product: NOEC/21 d/Daphnia magna (Water flea): 0.0025 mg/l

Method: OECD Test Guideline 211. (Data on the product itself), Information source: Internal study report

Acute toxicity to aquatic plants

ErC50/72 h/Pseudokirchneriella subcapitata (green algae): 18.03 mg/l

Persistence and degradability

As product: Not readily biodegradable. Estimation based on data obtained on active ingredient.

Bioaccumulative potential

As product: Does not bioaccumulate. Estimation based on data obtained on active ingredient

13. DISPOSAL CONSIDERATIONS

Disposal methods: Do not re-use empty containers. Triple or preferably pressure rinse containers before disposal. Add rinsing's to spray tank. DO NOT dispose of undiluted chemicals on-site. 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.

14. TRANSPORT INFORMATION

ADG

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER DIHYDROXIDE)
UN number	UN 3077
Class	9
Packing group	III
Marine pollutant	Copper dihydroxide

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER DIHYDROXIDE)
UN number	UN 3077
Class	9
Packing group	III
Marine pollutant	Copper Dihydroxide
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, SOLID, N.O.S. (COPPER DIHYDROXIDE)
UN number	UN 3077
Class	9
Packing group	III

Hazchem Code: 2Z**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. 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.

15. REGULATORY INFORMATION

Poison Schedule: S5**APVMA Approval Number:** 58989

16. OTHER INFORMATION

Revision

Identification Number: 130000000296 / A143 / Issue Date: 14.09.2021 / Replaces: 6.01.2021

Code: B11486799

Sections amended: 5, 14

Legend

ACGIH	American Conference of Governmental Industrial Hygienists. Threshold Limit Values (TLV)
AU OEL	Australia. Workplace Exposure Standards for Airborne Contaminants.
TWA	Exposure standard - time weighted average

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

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