

# SAFETY DATA SHEET



## DuPont™ Kocide® Opti™ fungicide

Version 3.3

Revision Date 07.03.2016

Document no. 130000024626

This SDS adheres to the standards and regulatory requirements of Australia and may not meet the regulatory requirements in other countries.

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product name** : DuPont™ Kocide® Opti™ fungicide  
: (Cu 30%)

**Other names** : B12015094  
DPX-GFJ52 46.1WG

**Recommended use of the chemical and restriction on use**

Recommended use : Fungicide

**Manufacturer, importer, supplier**

Company : Du Pont (Australia) Pty Ltd  
Street address : 7 Eden Park Drive  
Macquarie Park NSW 2113  
Australia

Telephone : (02) 9923 6111  
Telefax : (02) 9923 6011

**Emergency telephone number** : (02) 9923 6275 (Transport Emergency)  
(24 hr Emergency Medical Information: 1800 674 415)

### 2. HAZARDS IDENTIFICATION

**Product hazard classification**

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Serious eye damage/eye irritation : Category 2A

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

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

**Label content**

Pictogram :



Signal word : Warning

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

Precautionary : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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### statements

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.  
IF SWALLOWED: Call a POISON CENTER/doctor 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.  
Collect spillage.  
Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

If you mill or grind this product you may change its toxicological properties.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : Mixture

### Components

Chemical name	CAS-No.	Concentration
Copper Hydroxide	20427-59-2	46.1 %
Other Ingredients		53.9 %

## 4. FIRST AID MEASURES

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 to fresh air. Artificial respiration and/or oxygen may be necessary. Call a poison control center or doctor for treatment advice.
- Skin contact** : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison information centre or doctor for treatment advice.
- Eye contact** : Hold eye 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 eye. Call a poison information centre 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/effects, acute and delayed** : No information available.
- Protection of first-aiders** : No information available.

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**Notes to physician** : Treat symptomatically.  
Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIREFIGHTING MEASURES

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

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

**Specific hazards** : No information available.

**Special protective equipment for firefighters** : Wear full protective equipment.

**Specific extinguishing methods** : No information available.

**Further information** : 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.  
(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.  
Runoff from fire control may be a pollution hazard. Control Runoff.

**Hazchem Code** : 2Z

### 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.

**Environmental precautions** : Prevent material from entering sewers, waterways, or low areas.

**Methods and materials for containment and cleaning up** : Shovel or sweep up. Avoid dust formation. Shovel into suitable container for disposal.  
Water Spill: If feasible, copper may be precipitated/-ultrafiltrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill.

**Additional advice** : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

### 7. HANDLING AND STORAGE

**Handling**

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Technical measures/Precautions : Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.  
Avoid contact with skin, eyes and clothing.

Precautions for safe handling : Keep away from heat and sources of ignition.

### Storage

Suitable storage conditions : Keep container tightly closed in a dry and well-ventilated place. Keep in cool, dry place in original containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Chemical name	Occupational Exposure Limits	Regulation
Copper Hydroxide		
TWA (as Cu)	0.2 mg/m <sup>3</sup> (Fume.)	US ACGIH (03 2014)
TWA (as Cu)	1 mg/m <sup>3</sup> (Dust and mist.)	US ACGIH (03 2014)

Engineering measures : Ensure adequate ventilation.

Biological occupational exposure limits : No information available.

### Personal protective equipment

Respiratory protection : None specified.

Hand protection : None specified.

Eye protection : Wear protective eyewear to prevent contact with this substance.

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

Hygiene measures : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Protective measures : End users of this product should follow label instructions for personal protection when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance (Physical state, form, colour, etc.)

Physical state : solid  
Form : solid, granular  
Colour : blue

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<b>Odour</b>	:	characteristic copper odor
<b>Odour Threshold</b>	:	not determined
<b>pH</b>	:	7.5 - 9.5
<b>Melting point/freezing point</b>	:	No information available.
<b>Initial boiling point and boiling range</b>	:	No information available.
<b>Flash point</b>	:	No information available.
<b>Evaporation rate</b>	:	No information available.
<b>Flammability (solid, gas)</b>	:	Does not sustain combustion.
<b>Upper/lower flammability or explosive limits</b>	:	
Upper explosion limit	:	No information available.
Lower explosion limit	:	No information available.
<b>Vapour pressure</b>	:	No information available.
<b>Vapour density</b>	:	No information available.
<b>Density</b>	:	
Bulk density	:	529 - 705 kg/m <sup>3</sup>
<b>Solubility(ies)</b>	:	
Water solubility	:	dispersible
<b>Partition coefficient: n-octanol/water</b>	:	No information available.
<b>Auto-ignition temperature</b>	:	No information available.
<b>Decomposition temperature</b>	:	No information available.
<b>Viscosity</b>	:	
Viscosity, kinematic	:	No information available.
<b>Molecular weight</b>	:	No information available.

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	:	No hazards to be specially mentioned.
<b>Chemical stability</b>	:	Stable at normal temperatures and storage conditions.
<b>Possibility of hazardous reactions</b>	:	No information available.


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- Conditions to avoid** : No information available.
- Materials to avoid** : None reasonably foreseeable.
- Hazardous decomposition products** : Hazardous thermal decomposition products:  
Copper oxides

**11. TOXICOLOGICAL INFORMATION**
**Acute toxicity**
**Oral**

DuPont™ Kocide® Opti™ fungicide : LD50/Rat: 1,847 mg/kg

**Inhalation**

DuPont™ Kocide® Opti™ fungicide : LC50/4 h/Rat: &gt; 2.08 mg/l

**Dermal**

DuPont™ Kocide® Opti™ fungicide : LD50/Rat: &gt; 2,000 mg/kg

**Skin corrosion/irritation**

 DuPont™ Kocide® Opti™ fungicide : Species: Rabbit  
Result: No skin irritation

**Serious eye damage/eye irritation**

 DuPont™ Kocide® Opti™ fungicide : Species: Rabbit  
Result: Irritating to eyes.

**Respiratory or skin sensitisation**

 DuPont™ Kocide® Opti™ fungicide : Species: Guinea pig  
Result: Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity**

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

**Carcinogenicity**

 Copper Hydroxide : Not classifiable as a human carcinogen.  
Animal testing did not show any carcinogenic effects.  
Information given is based on data obtained from similar substances.

**Reproductive toxicity**

 Copper Hydroxide : 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-fetal development at levels equal to or above those causing maternal toxicity.

**Specific Target Organ Toxicity**
**Specific target organ toxicity - single exposure**

DuPont™ Kocide® Opti™ fungicide : Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

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### Aspiration hazard

DuPont™ Kocide® Opti™ fungicide : No aspiration toxicity classification

### Other

Copper Hydroxide : 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.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Acute and prolonged toxicity to fish

DuPont™ Kocide® Opti™ fungicide : LC50/96 h/Oncorhynchus mykiss (rainbow trout): 0.24 mg/l

Toxicity to aquatic plants

Copper Hydroxide : ErC50/72 h/Pseudokirchneriella subcapitata (green algae): 0.00939 mg/l

Acute toxicity to aquatic invertebrates

DuPont™ Kocide® Opti™ fungicide : EC50/48 h/Daphnia magna (Water flea): 0.118 mg/l

Chronic toxicity to fish

Copper Hydroxide : NOEC/90 d: 0.0017 mg/l

Chronic toxicity to aquatic Invertebrates

Copper Hydroxide : NOEC/21 d: 0.03 mg/l

### Persistence and degradability

DuPont™ Kocide® Opti™ fungicide : Not readily biodegradable. Estimation based on data obtained on active ingredient.

### Bioaccumulation

DuPont™ Kocide® Opti™ fungicide : Does not bioaccumulate. Estimation based on data obtained on active ingredient.

### Mobility in soil

No information available.

### Other adverse effects

DuPont™ Kocide® Opti™ fungicide : See product label for additional application instructions relating to environmental precautions.

## 13. DISPOSAL CONSIDERATIONS

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- Waste disposal methods** : Do not contaminate ponds, waterways or ditches with chemical or used container. 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. Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture and bury empty containers in a local authority landfill. Empty containers and product should not be burnt.
- Contaminated packaging** : Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

#### ADG

- UN number : 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper hydroxide)  
Class : 9  
Packing group : III  
Hazchem Code : 2Z

#### IMDG

- UN number : 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper hydroxide)  
Class : 9  
Packing group : III  
Marine pollutant : yes

#### IATA

- UN number : 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper hydroxide)  
Class : 9  
Packing group : III

- Matters needing attention for transportation** : Not dangerous goods under ADG code when being transported in IBCs or other receptacles < 500 kg (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.

### 15. REGULATORY INFORMATION

APMVA Number: 63216

### 16. OTHER INFORMATION

#### References

SDS Number: 130000024626

#### Revision Date/Version



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Date of first preparation : 04.10.2007  
Revision Date : 07.03.2016  
Version : 3.3

Before use read DuPont's safety information. Take notice of the directions of use on the label.

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Significant change from previous version is denoted with a double bar.

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