

**DuPont™ Kocide® 3000 Fungicide/Bactericide**

Version 3.1

Revision Date 12/06/2010

Ref. 130000024626

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

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	DuPont™ Kocide® 3000 Fungicide/Bactericide
Product Grade/Type	:	(Cu 30%)
Tradename/Synonym	:	DPX-GFJ52 30WG GX-569 30WG Kocide Opti Kocide 46.1 DF B12015094
MSDS Number	:	130000024626
Product Use	:	Fungicide
Manufacturer	:	DuPont 1007 Market Street Wilmington, DE 19898
Product Information	:	1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency	:	1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency	:	CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Caution

Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.

This product is toxic to fish. This product is toxic to: Aquatic invertebrates

Potential Health Effects

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This section includes potential acute adverse effects which could occur if this material is not used according to the label.

- Skin : No adverse effects expected. Prolonged contact may cause:, Irritation, There are no reports of human skin sensitization..
- Eyes : May cause: Irritation with discomfort, pain, redness, or visual impairment.
- Inhalation : May cause irritation of respiratory tract. Cough
- Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Metallic taste, Gross overexposure may cause:, Kidney failure, Bloody urine, anemia, Loss of consciousness.

**Carcinogenicity
Material**

IARC

NTP

OSHA

Quartz

1

X

Quartz

: DuPont has classified this material as a probable human carcinogen.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Copper Hydroxide	20427-59-2	46.1 %
Inert Ingredients		53.9 %

Present as an impurity in the clay component of this product:

Quartz		<1 %
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SECTION 4. FIRST AID MEASURES

- | | |
|--------------------|---|
| Skin contact | : Take off all 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 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 control center or doctor for treatment advice. |
| Inhalation | : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. |
| Ingestion | : Call a poison control center or doctor for treatment advice. 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. |
| General advice | : Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
For medical emergencies involving this product, call toll free 1-800-441-3637. See Label for Additional Precautions and Directions for Use. |
| Notes to physician | : Probable mucosal damage may contraindicate the use of gastric lavage. |

SECTION 5. FIRE-FIGHTING MEASURES

- | | |
|--------------------------------|---|
| Suitable extinguishing media | : Water spray, Dry chemical, Foam, Carbon dioxide (CO2) |
| Unsuitable extinguishing media | : High volume water jet, (contamination risk) |
| Firefighting Instructions | : In the event of fire, wear self-contained breathing apparatus. Wear full protective equipment.
(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. |

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SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Spill Cleanup : 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.
- Accidental Release Measures : Prevent material from entering sewers, waterways, or low areas.
Follow applicable Federal, State/Provincial and Local laws/regulations.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : 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.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place. Keep out of the reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Ensure adequate ventilation.
- Personal protective equipment
Skin and body protection : Applicators and other handlers must wear:
Long sleeved shirt and long pants
Shoes plus socks
Chemical resistant gloves made of any waterproof material


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Natural Rubber

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls

Chemical resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber

Shoes plus socks

Protective measures : Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines**Exposure Limit Values**

Copper Hydroxide

AEL *

(DUPONT) 1.0 mg/m³ 8 & 12 hr. TWA as Cu

Quartz

PEL:

(OSHA)

2.4millions of particles per cubic foot of air TWA Respirable.

Remarks

The exposure limit is calculated from the equation, $250/(\%SiO_2+5)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.

PEL:

(OSHA)

0.1 mg/m³ TWA Respirable.

Remarks

The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.

PEL:

(OSHA)

0.3 mg/m³ TWA Total dust.

Remarks

The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower values of % SiO₂ will give higher exposure limits.

TLV

(ACGIH)

0.025 mg/m³ TWA Respirable fraction.

AEL *

(DUPONT)

0.02 mg/m³ 8 hr. TWA Respirable dust.

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AEL * (DUPONT) 0.01 mg/m³ 12 hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: solid, granular
Color	: blue
Odor	: none
pH	: 7.5 - 9.5
Bulk density	: 33 - 44 lb/ft ³
Water solubility	: dispersible

SECTION 10. STABILITY AND REACTIVITY

Stability	: Stable at normal temperatures and storage conditions.
Incompatibility	: None reasonably foreseeable.
Hazardous decomposition products	: Hazardous thermal decomposition products:: Copper oxides

SECTION 11. TOXICOLOGICAL INFORMATION

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Inhalation 4 h LC50	: > 2.08 mg/l , rat
Dermal LD50	: > 2,000 mg/kg , rat
Oral LD50	: 1,847 mg/kg , rat
Skin irritation	: No skin irritation, rabbit
Eye irritation	: Moderate eye irritation, rabbit
Sensitisation	: Animal test did not cause sensitization by skin contact., guinea pig

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Copper Hydroxide

Repeated dose toxicity

:

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.

Carcinogenicity

:

Animal testing did not show any carcinogenic effects.

Information given is based on data obtained from similar substances.

Mutagenicity

:

Evidence suggests this substance does not cause genetic damage in cultured bacterial cells.

Evidence suggests this substance does not cause genetic damage in animals.

Reproductive toxicity

:

Animal testing did not show any effects on fertility.

Information given is based on data obtained from similar substances.

Teratogenicity

:

Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Quartz

Repeated dose toxicity

:

Inhalation

Fluid retention in lungs (pulmonary oedema), lung effects,
Inflammation, Chronic lung disease, Fibrosis

SECTION 12. ECOLOGICAL INFORMATION**Aquatic Toxicity**

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96 h LC50

:

Oncorhynchus mykiss (rainbow trout) 0.24 mg/l

48 h EC50

:

Daphnia magna (Water flea) 0.118 mg/l

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Copper Hydroxide

72 h ErC50	:	Pseudokirchneriella subcapitata (green algae) 0.00939 mg/l
90 d	:	NOEC 0.0017 mg/l
21 d	:	NOEC 0.03 mg/l

Toxicity to other organisms

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LD50	:	Colinus virginianus (Bobwhite quail) 496 mg/kg Information given is based on data obtained from similar product.
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Copper Hydroxide

8 d LC50	:	Colinus virginianus (Bobwhite quail) > 3,400 mg/kg Dietary
8 d LC50	:	Anas platyrhynchos (Mallard duck) > 5,000 mg/kg Dietary

Additional ecological information	:	Environmental Hazards: For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. See product label for additional application instructions relating to environmental precautions.
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SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal	:	Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
Container Disposal	:	Refer to the product label for instructions. Do not transport if this container is damaged or leaking.
In the event of a major spill, fire or other emergency, call 1-800-441-3637 day		

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or night.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Copper hydroxide)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9MI
IMDG	UN number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Copper hydroxide)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Copper hydroxide)

Not regulated by DOT/49 CFR unless shipped in bulk package or by water.

SECTION 15. REGULATORY INFORMATIONSARA 313 Regulated : Copper Hydroxide
Chemical(s)Title III hazard : Acute Health Hazard: Yes
classification : Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: NoEPA Reg. No. : 352-662
In the United States this product is regulated by the US Environmental
Protection Agency (EPA) under the Federal Insecticide, Fungicide and

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Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

PA Right to Know : Substances on the Pennsylvania Hazardous Substances List present at
Regulated Chemical(s) a concentration of 1% or more (0.01% for Special Hazardous
Substances): Sodium sulphate

SECTION 16. OTHER INFORMATION

	NFPA	HMIS
Health :	2	2
Flammability :	1	1
Reactivity/Physical hazard :	0	0

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Contact person : DuPont Crop Protection, Wilmington, DE, 19898, Phone: 1-888-638-7668

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