

**Kocide® 3000 Fungicide/Bactericide**

Version 1.0

Revision Date 04/08/2015

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 : 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

Medical Emergency : ChemTel 1-800-255-3924 (outside the U.S. 1-813-248-0585)  
Transport Emergency : ChemTel 1-800-255-3924 (outside the U.S. 1-813-248-0585)

**SECTION 2. HAZARDS IDENTIFICATION**

## Emergency Overview

## Caution

Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin, or on 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.
- Repeated exposure  
Quartz : Kocide LLC has classified this material as a known human carcinogen.

Carcinogenicity Material	IARC	NTP	OSHA
Quartz	1	X	

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

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

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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 1-800-255-3924. See Label for Additional Precautions and Directions for Use.
- Notes to physician** : Probable mucosal damage may contraindicate the use of gastric lavage.

### **SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media** : Water spray, Dry chemical, Foam, Carbon dioxide (CO2)
- Unsuitable extinguishing media** : High volume water jet, (contamination risk)

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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.

### **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.

Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.

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.

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### **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  
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 *	(KOCIDE)	1.5 mg/m <sup>3</sup>	8 & 12 hr. TWA
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Quartz PEL:	(OSHA)	2.4 millions of particles per cubic foot of air Respirable.	TWA
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Remarks The exposure limit is calculated from the equation,  $250/(\%SiO_2+5)$ , using a value of 100% SiO<sub>2</sub>. Lower percentages of SiO<sub>2</sub> will yield higher exposure limits.

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PEL:	(OSHA)	0.1 mg/m3 Remarks	TWA Respirable. The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$ , using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits.
PEL:	(OSHA)	0.3 mg/m3 Remarks	TWA Total dust. The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$ , using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.
TLV	(ACGIH)	0.025 mg/m3	TWA Respirable fraction.
AEL *	(KOCIDE)	0.01 mg/m3	12 hr. TWA Respirable dust.
AEL *	(KOCIDE)	0.02 mg/m3	8 hr. TWA Respirable dust.

\* AEL is Kocide LLC'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	: characteristic copper odor
pH	: 7.5 - 9.5
Bulk density	: 33 - 44 lb/ft <sup>3</sup>
Water solubility	: dispersible

### SECTION 10. STABILITY AND REACTIVITY

Stability	: Stable at normal temperatures and storage conditions.
Incompatibility	: None reasonably foreseeable.

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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

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.

Oral - feed  
rat

Spleen effects

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.

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**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.

Information given is based on data obtained from similar substances.

**Reproductive toxicity** : 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.

Quartz

**Repeated dose toxicity** : The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

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

**Carcinogenicity** : Human carcinogen.

Kocide LLC has classified this material as a known human carcinogen.

### **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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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

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.

### 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 1-800-255-3824 (outside the U.S. 1-813-248-0585) day 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

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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 INFORMATION

SARA 313 Regulated Chemical(s) : Copper Hydroxide

Title III hazard classification : Acute Health Hazard: Yes  
Chronic Health Hazard: No  
Fire: No  
Reactivity/Physical hazard: No  
Pressure: No

EPA Reg. No. : 91411-2  
In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and 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.

California Prop. 65 : WARNING! This product contains a chemical or chemicals known to the State of California to cause cancer.  
WARNING! This product contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.

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

### SECTION 16. OTHER INFORMATION

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

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Contact person : Kocide LLC, 9145 Guilford Road, Suite 175, Columbia, MD, 21046-1883  
Phone: 1-301-604-5365

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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