

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

Version 2.0

Revision Date 05/28/2015

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 : DuPont™ Kocide® 3000 Fungicide/Bactericide
Tradename/Synonym : B12015094
GX-569 30WG
DPX-GFJ52 46.1WG
Kocide Opti
Kocide 46.1 DF

Product Grade/Type : (Cu 30%)

Product Use : Fungicide

Restrictions on use :
Do not use product for anything outside of the above specified uses

Manufacturer/Supplier : DuPont
4417 Lancaster Pike
Wilmington, DE 19805, USA

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**Product hazard category**

Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation)	Category 4
Serious eye damage/eye irritation	Category 2A

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Label content

Pictogram

:



Signal word

: Warning

Hazardous warnings

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

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Copper Hydroxide	20427-59-2	46.1 %
Clay		1 - 5 %
2-Propenoic Acid, Homopolymer		5 - 10 %
Other Ingredients		38.9 - 47.9 %

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- 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.
- 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.
- 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.


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- 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.
- 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.
- Most important symptoms/effects, acute and delayed : No applicable data available.
- Protection of first-aiders : No applicable data available.
- 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)
- Specific hazards : No applicable data available.
- Special protective equipment for firefighters : Wear full protective equipment.
- Further information : (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.

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- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- 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 : 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.
- Dust explosion class : No applicable data available.
- 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.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

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


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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

TLV	(ACGIH)	0.2 mg/m ³	TWA Fume. as Cu
TLV	(ACGIH)	1 mg/m ³	TWA Dust and mist. as Cu
AEL *	(DUPONT)	1.5 mg/m ³	8 & 12 hr. TWA

Clay

No applicable data available.

2-Propenoic Acid, Homopolymer

No applicable data available.

* 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
Appearance

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

Odor : characteristic copper odor

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Odor threshold	: not determined
pH	: 7.5 - 9.5
Melting point/range	: No applicable data available.
Boiling point/boiling range	: No applicable data available.
Flash point	: No applicable data available.
Evaporation rate	: No applicable data available.
Flammability (solid, gas)	: Does not sustain combustion.
Upper explosion limit	: No applicable data available.
Lower explosion limit	: No applicable data available.
Vapour Pressure	: No applicable data available.
Vapour density	: No applicable data available.
Specific gravity (Relative density)	: No applicable data available.
Water solubility	: dispersible
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.


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Chemical stability	:	The product is chemically stable under recommended conditions of storage, use and temperature. Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	:	No applicable data available.
Conditions to avoid	:	No applicable data available.
Incompatible materials	:	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 : Irritating to eyes., Rabbit

Sensitisation : Animal test did not cause sensitization by skin contact., Guinea pig

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

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Rat
-
Spleen effects

Information given is based on data obtained from similar substances.

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

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

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.

2-Propenoic Acid, Homopolymer
Repeated dose toxicity : Ingestion
Rat
- 28 d
NOAEL: 1,136 mg/kg
No toxicologically significant effects were found., Information given is
based on data obtained from similar substances.

Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic
effects.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.
Information given is based on data obtained from similar substances.



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Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a 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

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

2-Propenoic Acid, Homopolymer

72 h EC50 : Selenastrum capricornutum (green algae) 40 mg/l see user defined free text
Information given is based on data obtained from similar substances.

96 h NOEC : Desmodesmus subspicatus (green algae) 32.8 mg/l OECD Test Guideline 201
Information given is based on data obtained from similar substances.

28 d : NOEC Danio rerio (zebra fish) > 450 mg/l OECD Test Guideline 204
Information given is based on data obtained from similar substances.

21 d : NOEC Daphnia magna (Water flea) 58 mg/l see user defined free text
Information given is based on data obtained from similar substances.

Environmental Fate

2-Propenoic Acid, Homopolymer


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Biodegradability	:	Not rapidly biodegradable Information given is based on data obtained from similar substances.
Bioaccumulation	:	Bioaccumulation is unlikely. Information given is based on data obtained from similar substances.
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 methods - Product	:	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.
Waste disposal methods - Container	:	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 or night.
Contaminated packaging	:	No applicable data available.

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


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IMDG	UN number	: 3077
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper hydroxide)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9

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

Marine Pollutants assigned UN number 3077 and 3082 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, IATA special provision A197, and ADR/RID special provision 375.

SECTION 15. REGULATORY INFORMATION

Other regulations : Very toxic to aquatic organisms.

SARA 313 Regulated Chemical(s) : Copper Hydroxide

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

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

EPA 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 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.

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

SECTION 16. OTHER INFORMATION

NFPA

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

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

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