



## SAFETY DATA SHEET NORDOX 75 WG



### SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued 03.06.2014

#### 1.1. Product identifier

Product name NORDOX 75 WG  
Chemical name Cuprous Oxide  
Synonyms Copper (I) oxide

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation Fungicide

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Company name NORDOX AS  
Postal address Østensjøveien 13  
Postcode 0661  
City OSLO  
Country Norway  
Tel +47 22 97 50 00  
Fax +47 22 64 12 08  
E-mail marketing@nordox.no  
Website http://www.nordox.no

#### 1.4. Emergency telephone number

Emergency telephone Emergency telephone: +47 22 97 50 00

### SECTION 2: Hazards identification

#### 2.1. Classification of substance or mixture

#### 2.2. Label elements

##### Hazard Pictograms (CLP)



Signal word

Warning

Hazard statements

H410 Very toxic to aquatic life with long lasting effects. H400 Very toxic to aquatic life. H302 Harmful if swallowed.

EEC-directive

EC Regulations for the formulated product:  
Label name: NORDOX 75 WG

#### 2.3. Other hazards

Description of hazard

Physical/chemical hazards :

Not Flammable.

Not explosive

Environmental hazards :

Copper is a necessary trace element and stimulates plant growth and yield on copper deficient soil. Copper is an integral part of various oxidating

enzymes, and several animal diseases may occur if the diet is deficient in copper.

#### Human health hazards :

Cuprous oxide is classified as harmful, but is not considered a dangerous material for working -(Ullmann Encyclopedia, Band 15, page 560 (1978)). It may cause "metallic fever" after inhalation of dust in the same way as other metal dusts.

#### Skin irritation :

Non-irritant.

#### Eye irritation :

Positive irritant.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents
Copper (I) Oxide	CAS no.: 1317-39-1 EC no.: 215-270-7	Xn, N; R22, R50/53 Acute tox. 4; H302; On basis of test data Aquatic Acute 1; H400; On basis of test data Aquatic Chronic 1; H410; On basis of test data	86.2 %
Other ingredients not classified			13.8 %
Substance comments	Substance/preparation : Preparation  As copper dusts or mists (CAS No. 7440-50-8). Compounds not precisely identified are proprietary or not hazardous.		

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation	Remove victim to fresh air. Give artificial respiration if victim does not breathe. Seek medical advice.
Skin contact	Remove contaminated clothing. Wash off with plenty of water and soap.
Eye contact	Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Seek medical advice.
Ingestion	One glass of water with addition of one tablespoon of common salt may induce vomiting.

### 4.2. Most important symptoms and effects, both acute and delayed

### 4.3. Indication of any immediate medical attention and special treatment needed

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

### 5.2. Special hazards arising from the substance or mixture

### 5.3. Advice for firefighters

Other Information	Non-flammable product
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## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Personal protection measures	Use dust mask and eye protection.
	No smoking.
	Do not breathe dust and avoid contact with eyes.

**6.2. Environmental precautions**

Environmental precautionary measures	Do not allow to enter sewerage and other bodies of water.
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**6.3. Methods and material for containment and cleaning up**

Cleaning method	The product should be collected for recycling, or be disposed of in a place where copper is tolerated or needed. To be recovered in the most convenient way.
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**6.4. Reference to other sections****SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Handling	Do not breathe dust and avoid contact with eyes.
	Take pre-cautionary measures against static discharges.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage	Store in a dry and preferably cool place.
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**7.3. Specific end use(s)****SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure limit values**

Substance	Identification	Value	TWA Year
Copper (I) Oxide	CAS no.: 1317-39-1 EC no.: 215-270-7	8-hour TWA: 1 mg/m <sup>3</sup> , TLV 8-hour TWA: 1 mg/m <sup>3</sup> , PEL	

**8.2. Exposure controls**

Occupational exposure limits	Engineering measures : Take precautionary measures against static discharges.
	Hygienic measures : When using do not eat, drink or smoke.
	Occupational Exposure Limits : Not classified.

**Safety signs****Respiratory protection**

Respiratory protection	Wear dust mask.
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**Hand protection**

Hand protection	Wear rubber gloves
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**Eye / face protection**

Eye protection	Safety goggles.
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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state	Granules
Colour	Red-brown
Odour	Weak earthy odor
pH (as supplied)	Value: 7.0-8.5
Comments, pH (as supplied)	(1% solution)
Melting point/melting range	Value: 1326 °C
Comments, Melting point / melting range	(a.i.)
Comments, Boiling point / boiling range	Decompose at 1800 °C (a.i.)
Comments, Flash point	Not applicable
Lower explosion limit with unit of measurement	Non explosive
Upper explosion limit with units of measurement	Non explosive
Comments, Vapour pressure	Not applicable
Specific gravity	Value: 1.62 kg/l
Comments, Specific gravity	(Br. Stand. 2955)
Solubility in water	Insoluble
Comments, Spontaneous combustability	Not applicable
Comments, Viscosity	Not applicable

**Physical hazards**

Explosive properties	Non explosive
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**9.2. Other information**

Bulk density	Value: 1.57 kg/l
Comments, Bulk density	(Br. Stand. 2955)

**Other physical and chemical properties**

Physical and chemical properties	Einecs ref.: Unit 250, col. 2, page 125. Specific gravity: 6.0 kg/l
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**SECTION 10: Stability and reactivity****10.1. Reactivity****10.2. Chemical stability**

Stability	Stable under normal conditions
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**10.3. Possibility of hazardous reactions****10.4. Conditions to avoid**

Conditions to avoid	High humidity
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**10.5. Incompatible materials****10.6. Hazardous decomposition products**

Hazardous decomposition products	None
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**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicological Information:**

Other toxicological data	Chemical name : Copper (I) oxide
	Acute toxicity
	Oral : LD50 (rat) 3165 mg/kg bodyweight
	Dermal : > 2000 mg/kg
	Inhalation : LC50 > 4,84 mg/l, no deaths observed

**Potential acute effects**

Inhalation	Inhalation: Copper (I) oxide showed little/no toxicity when administered to test animals by other routes. Furthermore, information on the particle size distribution and low water solubility of Copper (I) oxide indicate a low potential for inhalation exposure.
Skin contact	Skin sensitivity: Non sensitiser
Eye contact	Moderate (unwashed) and non-irritation (washed)

**Delayed effects / repeated exposure**

Skin contact	Non-sensitiser
Chronic effects	Cuprous oxide is classified as harmful, but is not considered a dangerous material for working (Ullmann Encyclopedia, Band 15, page 560 (1978)). It may cause "metallic fever" after inhalation of dust in the same way as other metal dusts.

**Carcinogenic, Mutagenic or Reprotoxic**

Carcinogenicity	Negative results were obtained for copper sulphate in vitro in a bacterial cell reverse mutation assay (OECD 471). An In vivo unscheduled DNA synthesis test (equivalent to OECD 486) and a mouse micronucleus test (EC method B.12) performed on copper sulphate also gave negative results.
Reproductive toxicity	Copper (I) oxide does not meet the criteria for classification. NOAEL for reproductive toxicity of copper sulphate pentahydrate in rats is > 1500 ppm in food. Test guideline OECD 416.

Copper (I) oxide does not meet the criteria for classification.

**Symptoms of Exposure**

Other Information	Copper (I) oxide is not classified on the basis of acute oral, inhalation or dermal toxicity.  Copper (I) oxide does not meet the criteria for classification as STOT for a single exposure.
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**SECTION 12: Ecological information****12.1. Toxicity**

Ecotoxicity	Copper is a necessary trace element and stimulates plant growth and yield on copper deficient soil. Copper is an intergral part of various oxidating enzymes, and several animal diseases may occur if the diet is deficient in copper. Cuprous oxide is an active ingredient in antifouling paints and accordingly toxic to primitive marine organisms.
Aquatic, comments	Ecotoxicity (Cu <sup>2+</sup> ): EC50 (Daphnia magna: 48 h): 9.8 - 41.2 ppb Chronic marine waters toxicity test results and PNEC derivation:  Chronic toxicity of copper ions from soluble copper compounds was assessed using 51 NOEC/EC10 values from 24 species representing different trophic levels (fish, invertebrates and algae). Species-specific NOECs were calculated after normalizing to dissolved organic carbon (DOC) and were used to derive SSDs and HC5 values. Normalisation at a typical DOC for coastal waters of 2 mg/l resulted in an HC5 of 5.2 µg dissolved Cu/L. Applying an assessment factor of 1, a default chronic marine PNEC of 5.2 µg dissolved Cu/L is assigned to assess local risks.

**12.2. Persistence and degradability****12.3. Bioaccumulative potential**

Bioaccumulative potential	The "bioaccumulative" criteria are not applicable to essential metals.
Comments, BCF	Copper-ions bind strongly to soil. The median water-soil partitioning coefficient (K <sub>p</sub> ) is 2120 L/kg.



S-phrases	in the aquatic environment.
	S 2 Keep out of reach for children
	S 29 Do not empty into drains
	S 36/37 Wear suitable protective clothing and gloves
	S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

References (laws/regulations) There are no additional National Regulations required/available.

### 15.2. Chemical safety assessment

## SECTION 16: Other information

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Acute tox. 1; H302; Aquatic Acute 1; H410;
List of relevant R-phrases (under headings 2 and 3).	R22 Harmful if swallowed. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
List of relevant H-phrases (Section 2 and 3).	H302 Harmful if swallowed. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
Responsible for safety data sheet	NORDOX AS

