



SAFETY DATA SHEET

Creation Date 04-Oct-2010

Revision Date 24-Nov-2010

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description: Copper
Cat No. 448050000; 448051000; 448055000

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

E-mail address begeel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not hazardous

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R phrases mentioned in this Section, see Section 16

R-phrases(s) none

Label Elements

Signal Word None

Hazard Statements

Other Hazards

No information available.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	Classification	GHSCLAS	REACH No.
Copper 7440-50-8	EEC No. 231-159-6	>95	7440-50-8	-	-	-

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Ingestion	Do not induce vomiting. Obtain medical attention.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

Specific End Uses

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Copper

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 0.6 mg/m ³ 15 min STEL: 2 mg/m ³ 15 min TWA: 0.2 mg/m ³ 8 hr TWA: 1 mg/m ³ 8 hr	VME: 0.2 mg/m ³ 8 heures. fume VME: 1 mg/m ³ 8 heures. Cu dust VLCT: 2 mg/m ³	TWA: 0.2 mg/m ³ 8 uren TWA: 1 mg/m ³ 8 uren	VLA-ED: 0.2 mg/m ³ 8 horas VLA-ED: 1 mg/m ³ 8 horas

Component

Copper

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 0.1 mg/m ³ 8 Stunden. inhalable fraction Peak: 0.2 mg/m ³	TWA: 0.2 mg/m ³ 8 horas TWA: 1 mg/m ³ 8 horas	TWA: 0.1 mg/m ³ 8 uren	TWA: 1 mg/m ³ 8 tunteina TWA: 0.1 mg/m ³ 8 tunteina

Component

Copper

Austria	Denmark	Switzerland	Poland	Norway
STEL: 4 mg/m ³ 15 Minuten STEL: 0.4 mg/m ³ 15 Minuten MAK: 1 mg/m ³ 8 Stunden MAK: 0.1 mg/m ³ 8 Stunden	TWA: 1.0 mg/m ³ 8 timer TWA: 0.1 mg/m ³ 8 timer	STEL: 0.2 mg/m ³ 15 Minuten MAK: 0.1 mg/m ³ 8 Stunden		TWA: 0.1 mg/m ³ 8 timer TWA: 1 mg/m ³ 8 timer STEL: 0.3 mg/m ³ 15 minutter. fume STEL: 3 mg/m ³ 15 minutter. dust

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**Component
Copper**

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³ 8 satima. fume TWA: 1 mg/m ³ 8 satima. Cu dust STEL: 2 mg/m ³ 15 minutama.	TWA: 0.2 mg/m ³ 8 hr. fume TWA: 1 mg/m ³ 8 hr. dust and mist STEL: 2 mg/m ³ 15 min		TWA: 1 mg/m ³ 8 hodinách. dust TWA: 0.1 mg/m ³ 8 hodinách. fume Ceiling: 2 mg/m ³ dust Ceiling: 0.2 mg/m ³ fume

**Component
Copper**

Estonia	Gibraltar	Greece	Hungary	Iceland
TWA: 1 mg/m ³ 8 tundides. total dust TWA: 0.2 mg/m ³ 8 tundides. respirable dust		STEL: 2 mg/m ³ TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	STEL: 4 mg/m ³ 15 percekben. STEL: 0.4 mg/m ³ 15 percekben. fume TWA: 1 mg/m ³ 8 órában. TWA: 0.1 mg/m ³ 8 órában. fume	TWA: 1.0 mg/m ³ 8 klukkustundum. total dust and powder TWA: 0.1 mg/m ³ 8 klukkustundum. Cu respirable dust and fume Ceiling: 2 mg/m ³ total dust and powder Ceiling: 0.2 mg/m ³ respirable dust and fume

**Component
Copper**

Latvia	Lithuania	Luxembourg	Malta	Romania
STEL: 1 mg/m ³ TWA: 0.5 mg/m ³	TWA: 1 mg/m ³ inhalable fraction TWA: 0.2 mg/m ³ respirable fraction			TWA: 0.50 mg/m ³ 8 ore STEL: 0.20 mg/m ³ 15 minute STEL: 1.50 mg/m ³ 15 minute

**Component
Copper**

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
TWA: 0.5 mg/m ³ STEL: 1 mg/m ³ aerosol	1 0.1	TWA: 1 mg/m ³ 8 urah inhalable fraction TWA: 0.1 mg/m ³ 8 urah respirable fraction, fume STEL: 4 mg/m ³ 15 minutah inhalable fraction STEL: 0.4 mg/m ³ 15 minutah respirable fraction, fume	LLV: 1 mg/m ³ 8 timmar. total dust LLV: 0.2 mg/m ³ 8 timmar. respirable dust	

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

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Engineering Measures	Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas
Personal protective equipment	
Eye Protection	Goggles
Hand Protection	Protective gloves
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Brown
odor	odorless
pH	No information available.
Boiling Point/Range	2595°C / 4703°F @ 760 mmHg
Melting Point/Range	1083°C / 1981.4°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	Insoluble
Molecular Formula	Cu
Molecular Weight	63.54

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Air sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions . None under normal processing..

Conditions to Avoid

Incompatible products, Excess heat, Avoid dust formation, Exposure to air.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Copper oxides.

Copper

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11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.
Mutagenic Effects No information available
Reproductive Effects No information available.
Developmental Effects No information available.
Target Organs None known.
Other Adverse Effects The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information
Endocrine Disruptor Information None known

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects No information available.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper	0.0426 - 0.0535 mg/L EC50 72 h 0.031 - 0.054 mg/L EC50 96 h	0.3 mg/L LC50 96 h 0.112 mg/L LC50 96 h 0.052 mg/L LC50 96 h 0.0068 - 0.0156 mg/L LC50 96 h 1.25 mg/L LC50 96 h 0.8 mg/L LC50 96 h 0.2 mg/L LC50 96 h		0.03 mg/L EC50 = 48 h

Persistence and degradability

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No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken to local recyclers for disposal

14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

ADR

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Copper	231-159-6	-		X	X	-	X	-	X	X	X

Legend

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TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
AICS - Inventory of Chemical Substances
KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment**16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

No information available.

Revision Date 24-Nov-2010**Revision Summary** Not applicable**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet