

Material Safety Data Sheet

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Version 1.4
Regulation (EC) No 1907/2006

1 - Product and Company Information

Product Name COPPER ICP/DCP STANDARD SOLUTION (HNO3)
Product Number 356182

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2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Irritating to eyes and skin.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number	
COPPER ICP/DCP STANDARD SOLUTION (HNO3)	None	None	None	
Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
WATER	>= 95 < 99	7732-18-5	231-791-2	None
NITRIC ACID, >70%	>= 1 < 5	7697-37-2	231-714-2	007-004-00-1

Symbols: O-C

R-Phrases: 8-35

Contact with combustible material may cause fire. Causes severe burns.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of

water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Use extinguishing media appropriate to surrounding fire conditions. Quench with large quantities of water. Use water spray to cool fire-exposed containers.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Discard contaminated clothing and shoes.

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL OEL OEL	TWA TWA TW	5,000 mg/m3 5,000 mg/m3 5,000 mg/m3
		2,000 ppm 2,000 ppm 2,000 ppm

EXPOSURE LIMITS - GERMANY

Source	Type	Value
TRGS 900 TRGS 900 OEL OEL OE	OEL OEL OE	5,000 mg/m3 5,000 mg/m3 5,000 mg/m3
		2,000 ppm 2,000 ppm 2,000 ppm

Remarks: =1= =1= =1=

EXPOSURE LIMITS - SWITZERLAND

Source	Type	Value
OEL	OEL	5,0000 mg/m3 2,0000 ppm

EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL OEL OEL	OEL OEL OEL	5,2000 mg/m3 5,2000 mg/m3 5,20 2,0000 ppm 2,0000 ppm 2,0000 p
OEL OEL OEL	STEL STEL	10,0000 mg/m3 10,0000 mg/m3 10 4,0000 ppm 4,0000 ppm 4,0000 p

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Use supplied-air or SCBA respirators. Europe permits the use of type ABEK full-face cartridge respirators (EN 14387).
Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	1,0200 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.
Conditions of Instability: May discolor on exposure to light.
Materials to Avoid: May react with metals, releasing flammable hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nitrogen oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Cardiovascular system. Teeth. Lungs.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

UN#: 3264
Class: 8
PG: III
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.

IMDG

UN#: 3264
Class: 8
PG: III
Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA

UN#: 3264
Class: 8
PG: III
Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36/38

Irritating to eyes and skin.

S-PHRASES: 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Caution: Substance not yet fully tested (EU).

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

ID-Number: 414

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2010 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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