SAFETY DATA SHEET



according to Regulation (EC) No. 1907/2006

# CU-800 - 1 KG

Version	Revision Date:	SDS Number:	Date of last issue: 12.12.2016
8.1	15.02.2017	334566-00008	Date of first issue: 11.06.2010

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

1.1 Product identifier	
Trade name	: CU-800 - 1 KG
Product code	: 08938002

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

Use of the Sub-	:	Polishing agent and lubricant
stance/Mixture		

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

Company	:	Adolf Wuerth GmbH & Co. KG Reinhold-Würth-Str. 12-17 74653 Künzelsau
Telephone	:	+49 794015 0
Telefax	:	+49 794015 10 00
E-mail address of person responsible for the SDS	:	prodsafe@wuerth.com

### **1.4 Emergency telephone number**

Giftnotrufzentrale Berlin +49 30 30686 790. Gesellschaft (07:00 - 18:00 Uhr) +49 794015 2552

# **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)			
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.		
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.		

### 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

5

2

Hazard statements

H410 Very toxic to aquatic life with long lasting effects.



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Preca	autionary statements	Respons	woid release to the environment.

### 2.3 Other hazards

None known.

# **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

### Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Copper metal powder	7440-50-8 231-159-6	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 2,5 - < 10

For explanation of abbreviations see section 16.

# **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

Protection of first-aiders	:	No special precautions are necessary for first aid responders.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	Wash with water and soap as a precaution. Get medical attention if symptoms occur.
In case of eye contact	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

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

None known.

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

Treatment

: Treat symptomatically and supportively.



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# **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical	
Unsuitable extinguishing media	: High volume water jet	

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

Specific hazards during fire- fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Carbon oxides Metal oxides Nitrogen oxides (NOx)

### 5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if nec- essary. Use personal protective equipment.
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

# **SECTION 6:** Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Follow safe handling advice and personal protective equip- ment recommendations.
6.2 Environmental precautions		
Environmental precautions	:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material.
		For large spills, provide dyking or other appropriate contain-
		ment to keep material from spreading. If dyked material can
		be pumped, store recovered material in appropriate container.



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		bent. Local or natior posal of this m employed in th mine which re Sections 13 ar	aining materials from spill with suitable absor- nal regulations may apply to releases and dis- naterial, as well as those materials and items ne cleanup of releases. You will need to deter- gulations are applicable. nd 15 of this SDS provide information regarding r national requirements.

# 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

	9	
Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use only with adequate ventilation.
Advice on safe handling	:	Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.
Hygiene measures	:	Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.
7.2 Conditions for safe storage, i	incl	luding any incompatibilities
Requirements for storage areas and containers	:	Keep in properly labelled containers. Store in accordance with the particular national regulations.
Advice on common storage	:	Do not store with the following product types: Strong oxidizing agents

		Strong oxidizing agents
Storage class (TRGS 510)	:	11, Combustible Solids
Recommended storage tem- perature	:	<= 35 °C

# 7.3 Specific end use(s)

Specific use(s)	:	No data available
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### **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

Contains no substances with occupational exposure limit values.



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### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	
Copper metal powder	Consumers	Inhalation	Acute systemic ef-	20 mg/m3
			fects	
	Consumers	Skin contact	Acute systemic ef-	137 mg/kg
			fects	bw/day
	Workers	Skin contact	Long-term systemic	137 mg/kg
			effects	bw/day
	Workers	Inhalation	Acute systemic ef-	20 mg/m3
			fects	J
	Workers	Skin contact	Acute systemic ef-	273 mg/kg
			fects	bw/day
	Consumers	Skin contact	Long-term systemic	137 mg/kg
			effects	bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment Value	
Distillates (petroleum), solvent refined heavy paraffinic	Oral (Secondary Poisoning)	9,33 mg/kg food
Copper metal powder	Fresh water	7,8 µg/l
	Marine water	5,2 µg/l
	Sewage treatment plant	230 µg/l
	Fresh water sediment	87 mg/kg
	Marine sediment	676 mg/kg
	Soil	65 mg/kg

### 8.2 Exposure controls

### **Engineering measures**

Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

Personal protective equipme	nt	
Eye protection	:	Wear the following personal protective equipment: Safety glasses
Hand protection Material	:	PVC
Remarks	:	Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous sub- stance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufactur- er. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often!
Skin and body protection	:	Skin should be washed after contact.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates

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		that exposures	are within recommended exposure guidelines.
Filter	type	: Combined part	ticulates and organic vapour type (A-P)

# **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance	:	paste
Colour	:	light yellow, red
Odour	:	characteristic
Odour Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	> 220 °C
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	0,904 - 1,11 Method: DIN 51757
Density	:	1 g/cm3 (20 °C)
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n- octanol/water	:	Not applicable
Auto-ignition temperature	:	> 370 °C
Decomposition temperature	:	> 350 °C



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	cosity Viscosity, kinematic blosive properties	: Not applicable : Not explosive	
Ox	idizing properties	: The substance	e or mixture is not classified as oxidizing.
• • •••	er information rticle size	: No data availa	ble
SECTIO	ON 10: Stability and re	activity	

### 10.1 Reactivity

Not classified as a reactivity hazard.

#### 10.2 Chemical stability

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Hazardous reactions : Can react with strong oxidizing agents.

### 10.4 Conditions to avoid

Conditions to avoid : None known.

#### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### **10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

### **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

Information on likely routes of	:	Skin contact
exposure		Ingestion
		Eye contact

### Acute toxicity

Not classified based on available information.

### Components:

# Copper metal powder:

Acute oral toxicity

: LD50 (Rat): > 2.500 mg/kg Method: OECD Test Guideline 423 Assessment: The substance or mixture has no acute oral toxicity



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Acute	inhalation toxicity	: LC50 (Rat): > 5,1 Exposure time: 4 Test atmosphere Method: OECD T	h
Acute	e dermal toxicity		000 mg/kg Fest Guideline 402 e substance or mixture has no acute dermal

### Skin corrosion/irritation

Not classified based on available information.

### Components:

#### Copper metal powder:

Species: Rabbit Method: OECD Test Guideline 404 Result: No skin irritation

### Serious eye damage/eye irritation

Not classified based on available information.

### **Components:**

Copper metal powder:

Species: Rabbit Method: OECD Test Guideline 405 Result: No eye irritation

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

### **Respiratory sensitisation**

Not classified based on available information.

### Components:

#### Copper metal powder:

Test Type: Maximisation Test Exposure routes: Skin contact Species: Guinea pig Method: OECD Test Guideline 406 Result: negative

### Germ cell mutagenicity

Not classified based on available information.

### **Components:**

#### Copper metal powder:



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Genot	toxicity in vitro		icterial reverse mutation assay (AMES) D Test Guideline 471 ve
Genot	toxicity in vivo	cytogenetic as Species: Mou Application Ro Method: Direc Result: negati	se bute: Ingestion tive 67/548/EEC, Annex V, B.12.
	nogenicity		
	assified based on avail	lable information.	
•	oductive toxicity		
	assified based on avail	lable information.	
<u>Comp</u>	oonents:		
Сорр	er metal powder:		
Effect	s on fertility	Species: Rat Application Re	vo-generation reproduction toxicity study oute: Ingestion D Test Guideline 416 ve
Effect ment	s on foetal develop-	Species: Rabl	pute: Ingestion
STOT	- single exposure		
	assified based on avail	lable information.	

### STOT - repeated exposure

Not classified based on available information.

### Components:

#### Copper metal powder:

Exposure routes: inhalation (dust/mist/fume) Assessment: No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

### Repeated dose toxicity

#### Components:

### Copper metal powder:

Species: Rat NOAEL: >= 2 mg/m3 Application Route: inhalation (dust/mist/fume) Exposure time: 28 Days



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### Aspiration toxicity

Not classified based on available information.

## **SECTION 12: Ecological information**

### 12.1 Toxicity

### Components:

Copper metal powder:		
Toxicity to fish	:	LC50 : 8,1 μg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,792 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Chlorella vulgaris (Fresh water algae)): 0,333 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic tox- icity)	:	100
Toxicity to fish (Chronic tox- icity)	:	NOEC: 1 µg/l Species: Oncorhynchus mykiss (rainbow trout)
M-Factor (Chronic aquatic toxicity)	:	100
12.2 Persistence and degradabil	ity	
No data available		
12.3 Bioaccumulative potential		
No data available		
12.4 Mobility in soil		
No data available		

# 12.5 Results of PBT and vPvB assessment Not relevant

#### 12.6 Other adverse effects

No data available

### **SECTION 13: Disposal considerations**

:

### 13.1 Waste treatment methods

Product

Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in



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		discuss	sion with the waste disposal authorities.
Conta	minated packaging	dling si	containers should be taken to an approved waste han- ite for recycling or disposal. therwise specified: Dispose of as unused product.
Waste	e Code	: The fol	llowing Waste Codes are only suggestions:
		used p 120112	roduct 2, spent waxes and fats
			d product 2, spent waxes and fats
		150110	ned packagings 0, packaging containing residues of or contaminated by rous substances
		Proper hazard	ackaging Ordinance properly emptied packaging: ly emptied, non-contaminated packaging of non- lous products can be supplied to a system for the col- of sales packaging.

# **SECTION 14: Transport information**

# 14.1 UN number

ADN	: UN 3077
ADR	: UN 3077
RID	: UN 3077
IMDG	: UN 3077
ΙΑΤΑ	: UN 3077
14.2 UN proper shipping name	
ADN	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)
ADR	<ul> <li>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)</li> </ul>
RID	<ul> <li>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)</li> </ul>
IMDG	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)
ΙΑΤΑ	: Environmentally hazardous substance, solid, n.o.s. (Copper metal powder)

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14.3	Trans	port hazard class(es)		
	ADN		: 9	
	ADR		: 9	
I	RID		: 9	
ļ	IMDG		: 9	
I	ΙΑΤΑ		: 9	
14.4	Packir	ng group		
(	Classif	g group ication Code I Identification Number	: III : M7 : 90 : 9	
	Classif Hazarc Labels	g group ication Code I Identification Number restriction code	: III : M7 : 90 : 9 : (-)	
(	Classif	g group ication Code I Identification Number	: III : M7 : 90 : 9	
	<b>IMDG</b> Packin Labels EmS C		: III : 9 : F-A, S-F	
 ; 	Packin aircraft Packin	g instruction (LQ) g group	: 956 : Y956 : III : Miscellaneous	
	Packin ger aire		: 956	
		g instruction (LQ) g group	: Y956 : III : Miscellaneous	
14.5	Enviro	onmental hazards		
		nmentally hazardous	: yes	
l	<b>ADR</b> Enviroi <b>RID</b>	nmentally hazardous	: yes	

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Envir	onmentally hazardous	: yes		
<b>IMDC</b> Marir	<b>3</b> ne pollutant	: yes		
	a <b>(Passenger)</b> ne pollutant	: yes		
	a <b>(Cargo)</b> ne pollutant	: yes		
-	<b>cial precautions for us</b>	er		
<b>14.7 Tran</b> Rema	•	•	rpol and the IBC Code for product as supplied.	

### **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mix-ture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pol- lutants	:	Not applicable
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1		ENVIRONMENTAL HAZARDS	100 t	200 t
Water contaminating class (Germany)	:	WGK 1 slightly water endangering Classification according VwVwS, Annex 4.		
Volatile organic compounds :		emissions (integrated pollut	10/75/EU of 24 November 2010 on industrial ntegrated pollution prevention and control) nic compounds (VOC) content: 0 %	

# 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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### **SECTION 16: Other information**

Full text of H-Statements				
H400	:	Very toxic to aquatic life.		
H410	:	Very toxic to aquatic life with long lasting effects.		
Full text of other abbreviations				

Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified: NO(A)EC - No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### **Further information**

Sources of key data used to	:	Internal technical data, data from raw material SDSs, OECD
compile the Safety Data		eChem Portal search results and European Chemicals Agen-
Sheet		cy, http://echa.europa.eu/

**Classification procedure:** 

Calculation method Calculation method

#### **Classification of the mixture:**

Aquatic Acute 1	H400
Aquatic Chronic 1	H410



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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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DE / EN