	<b>SAFETY DATA SHEET</b>	Page : 1/ 10
	<b>COPPER</b>	Revision nr : 2
		Issuing date : 17/12/2012
		Supersedes : 02/02/2011

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

### 1.1. Product identifier

Commercial Product Name : COPPER  
 Chemical name of the substance : Copper  
 EC No : 231-159-6  
 CAS No. : 7440-50-8  
 REACH Registration Number : 01-2119480154-42-0073

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

Specific use(s) : Intermediate,  
 Catalyst,  
 particulate,  
 Alloy,  
 Preparation,  
 Dipping,  
 powder,  
 Coating,  
 Spraying,  
 Article,  
 Welding .

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

Company : Trafigura Beheer BV  
 Gustav Mahlerplein 102, ITO Tower - 20th Floor  
 1082 MA Amsterdam, The Netherlands  
 Tel.+31 20 504 1852  
 E-mail address:TrafiguraReach@trafigura.com

### 1.4. Emergency telephone number

Emergency telephone : +32 3 575 03 30 (This telephone number is available 24 hours per day,  
 7 days per week.)

IRELAND (REPUBLIC OF)  
 National Poisons Information Centre  
 Beaumont Hospital : +353 1 8379964  
 UNITED KINGDOM  
 National Poisons Information Service  
 (Birmingham Centre) : +44 (0) 870 600 6266 (UK only)  
 City Hospital


## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### **2.1.1. Classification according to Regulation (EU) 1272/2008**

CLP-Classification : Not a hazardous substance or mixture according to Regulation (EC)  
 No. 1272/2008.

Not classified

	<b>SAFETY DATA SHEET</b>	Page : 2/ 10
	<b>COPPER</b>	Revision nr : 2
		Issuing date : 17/12/2012
		Supersedes : 02/02/2011

### 2.1.2. Classification according to EU Directives 67/548/EC or 1999/45/EC

Classification : The product is non-dangerous in accordance with Directive 67/548/EEC.

Not classified

### 2.2. Label elements

#### 2.2.1. Labelling according to Regulation (EU) 1272/2008

Not applicable.

#### 2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

### 2.3. Other hazards

Other hazards which do not result in classification : Risk of dust explosion.  
Results of PBT and vPvB assessment  
Non-classified PBT substance  
Non-classified vPvB substance

## SECTION 3: Composition/information on ingredients


### 3.1. Substances

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Copper	(CAS No.) 7440-50-8 (EC No) 231-159-6 (EC Index) -	~ 100	Not classified
Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Copper	(CAS No.) 7440-50-8 (EC No) 231-159-6 (EC Index) -	~ 100	Not classified

Full text of R-, H- and EUH-phrases: see section 16

### 3.2. Mixtures

Not applicable

	<b>SAFETY DATA SHEET</b>	Page : 3/ 10
		Revision nr : 2
	<b>COPPER</b>	Issuing date : 17/12/2012
		Supersedes : 02/02/2011

#### SECTION 4: First aid measures

##### **4.1. Description of first aid measures**

Inhalation	: Keep at rest. Move to fresh air. If symptoms persist, call a physician.
Skin contact	: Wash off with plenty of water. If symptoms persist, call a physician.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Ingestion	: Rinse mouth. Call a physician immediately.
Additional advice	: Never give anything by mouth to an unconscious person or a person with cramps. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

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

Inhalation	: as offered : This product has no known adverse effect on human health. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Inhalation of fumes may cause metal fume fever.
Skin contact	: No adverse effects are expected.
Eye contact	: No adverse effects are expected.
Ingestion	: No adverse effects are expected.

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

No data available

#### SECTION 5: Firefighting measures

##### **5.1. Extinguishing media**


Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray or alcohol resistant foam.
Extinguishing media which shall not be used for safety reasons	: High volume water jet

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

Fire hazard	: Non-flammable.
Specific hazards	: Possible decomposition products are: CuOx Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

##### **5.3. Advice for firefighters**

Advice for firefighters	: Special protective equipment for firefighters Wear self contained breathing apparatus for fire fighting if necessary.
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	<b>SAFETY DATA SHEET</b>	Page : 4/ 10
		Revision nr : 2
	<b>COPPER</b>	Issuing date : 17/12/2012
		Supersedes : 02/02/2011

## SECTION 6: Accidental release measures

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

- Advice for non-emergency personnel : Ensure adequate ventilation.  
Wear personal protective equipment.  
See also section 8 .  
Keep away from open flames, hot surfaces and sources of ignition.
- Advice for emergency responders : Only qualified personnel equipped with suitable protective equipment may intervene.  
See also section 8.

### 6.2. Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

- Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.  
Dispose of in accordance with local regulations.

### 6.4. Reference to other sections

- See also section 8  
See also section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Handling : Wear personal protective equipment.  
See also section 8 .  
Keep away from open flames, hot surfaces and sources of ignition.  
Ensure adequate ventilation.  
During handling operations:  
Do not breathe vapours/dust.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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

- Storage : Keep tightly closed in a dry, cool and well-ventilated place.  
Do not store near or with any of the incompatible materials listed in section 10.  
Keep away from open flames, hot surfaces and sources of ignition.
- Packaging material : Store in original container.

### 7.3. Specific end use(s)


No data available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Exposure limit(s) :

<b>Copper (7440-50-8)</b>		
Austria	MAK (mg/m <sup>3</sup> )	0,4 mg/m <sup>3</sup>
Belgium	Limit value (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>

	<b>SAFETY DATA SHEET</b>	Page : 5/ 10
	<b>COPPER</b>	Revision nr : 2
		Issuing date : 17/12/2012
		Supersedes : 02/02/2011

<b>Copper (7440-50-8)</b>		
France	VLE (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Greece	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Greece	OEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
Latvia	OEL TWA (mg/m <sup>3</sup> )	0,5 mg/m <sup>3</sup>
Spain	VLA-ED (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Switzerland	VLE (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
Switzerland	VME (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
The Netherlands	MAC TGG 8H (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Hungary	AK-érték	0,1 mg/m <sup>3</sup>
Hungary	CK-érték	0,4 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	0,50 mg/m <sup>3</sup>
Romania	OEL STEL (mg/m <sup>3</sup> )	1,50 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>

Recommended monitoring procedures : Personal monitoring  
Concentration measurement in air

## **8.2. Exposure controls**

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : Not required under normal use.  
In the case of respirable dust and/or fumes, use self-contained breathing apparatus.  
Respirator with a full face mask  
Recommended Filter type: P (EN143)


Hand protection : Not required under normal use.

Eye protection : Not required under normal use.

Skin and body protection : Overalls, apron and boots recommended.

Thermal hazard protection : Use dedicated equipment.

Engineering measures : Use only in area provided with appropriate exhaust ventilation.

	<b>SAFETY DATA SHEET</b>	Page : 6/ 10
		Revision nr : 2
	<b>COPPER</b>	Issuing date : 17/12/2012
		Supersedes : 02/02/2011

Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours.  
Organisational measures to prevent /limit releases, dispersion and exposure

Avoid dust formation.

Fumes

Take precautionary measures against static discharges.

See also section 7

Environmental exposure controls : Exhaust air must be cleaned using approved equipment before returning it to the work place.  
Comply with applicable Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

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

Appearance : solid  
 Colour : no data available  
 Odour : no data available  
 pH : not applicable  
 Melting point/range : ~ 1083 °C  
 Boiling point/boiling range : ~ 2567 °C  
 Flash point : not applicable  
 Evaporation rate : not applicable  
 Flammability (solid, gas) : The product is not flammable.  
 Explosion limits : not applicable  
 Vapour pressure : not applicable  
 Vapour density : not applicable  
 Density : ~ 8,89 g/cm<sup>3</sup> (@ 20°C)  
 Water solubility : insoluble in water  
 Partition coefficient: n-octanol/water : not applicable  
 Autoignition temperature : no data available  
 Decomposition temperature : no data available  
 Viscosity : not applicable  
 Explosive properties : not applicable  
 Oxidizing properties : not applicable

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity


Reactivity : See also section 10.5

### 10.2. Chemical stability

Stability : Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous reactions : No data available

	<b>SAFETY DATA SHEET</b>	Page : 7/ 10
		Revision nr : 2
	<b>COPPER</b>	Issuing date : 17/12/2012
		Supersedes : 02/02/2011

#### **10.4. Conditions to avoid**

Conditions to avoid : Keep away from heat and sources of ignition.  
See also section 7

#### **10.5. Incompatible materials**

Incompatible materials : Strong acids, Oxidizing agent . See also section 7

#### **10.6. Hazardous decomposition products**

Hazardous decomposition products : CuOx

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

#### **11.1. Information on toxicological effects**

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)  
pH: not applicable

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)  
pH: not applicable

Respiratory/skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met.)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met.)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

#### **Further information**


Symptoms related to the physical, chemical and toxicological characteristics, See section 4.2.

### **SECTION 12: Ecological information**

#### **12.1. Toxicity**

Ecotoxicity effects : Ecological injuries are not known or expected under normal use.

<b>Copper (7440-50-8)</b>	
LC50/96h/fish	0,0068 - 0,0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50/48h/daphnia	0,03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 other aquatic organisms 1	0,0426 - 0,0535 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])
LC50 fish 2	< 0,3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

	<b>SAFETY DATA SHEET</b>	Page : 8/ 10
	<b>COPPER</b>	Revision nr : 2
		Issuing date : 17/12/2012
		Supersedes : 02/02/2011

<b>Copper (7440-50-8)</b>	
EC50 other aquatic organisms 2	0,031 - 0,054 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])

**12.2. Persistence and degradability**

Persistence and degradability : Not applicable

**12.3. Bioaccumulative potential**

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : not applicable

**12.4. Mobility in soil**

Mobility : No data available

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).  
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**12.6. Other adverse effects**

Further information : Not applicable.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste from residues / unused products : Dispose of in accordance with local regulations.  
Do not let product enter drains.

Contaminated packaging : Dispose of in accordance with local regulations.

Waste codes / waste designations according to EWC / AVV : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

**SECTION 14: Transport information**

**14.1. UN number**

UN-No. : NA

**14.2. UN proper shipping name**

Proper shipping name : NA

**14.3. Transport hazard class(es)**


**14.3.1. Overland transport**

ADR/RID : Not classified as dangerous in the meaning of transport regulations.

**14.3.2. Inland waterway transport (ADN)**

ADN : Not classified as dangerous in the meaning of transport regulations.



	<b>SAFETY DATA SHEET</b>	Page : 9/ 10
		Revision nr : 2
	<b>COPPER</b>	Issuing date : 17/12/2012
		Supersedes : 02/02/2011

#### 14.3.3. Transport by sea

IMDG : Not classified as dangerous in the meaning of transport regulations.  
 Class : Not applicable

#### 14.3.4. Air transport

ICAO/IATA : Not classified as dangerous in the meaning of transport regulations.  
 Class : Not applicable

#### 14.4. Packing group

Packing group : NA

#### 14.5. Environmental hazards

Other information : Not applicable.

#### 14.6. Special precautions for user

Special precautions : Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : Not applicable.

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Restrictions on use : Not applicable.

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.

: None

Authorisations : Not applicable

##### 15.1.2. National regulations

DE: WGK : nwg

#### 15.2. Chemical safety assessment


Chemical Safety Assessment : A Chemical Safety Assessment has been carried out for this substance.

### SECTION 16: Other information

Sources of key data used to compile the datasheet : European Chemicals Bureau

Safety datasheet sections which have been updated: : 2,4,8,14

Abbreviations and acronyms : ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin  
 ADR = Accord européen relatif au transport international des marchandises

	<b>SAFETY DATA SHEET</b>	Page : 10/ 10
	<b>COPPER</b>	Revision nr : 2
		Issuing date : 17/12/2012
		Supersedes : 02/02/2011

Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

LEL = Lower Explosive Limit/Lower Explosion Limit

UEL = Upper Explosion Limit/Upper Explosive Limit

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

vPvB = very persistent and very bioaccumulating

WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

TWA = time weighted average

TLV = Threshold limits

STEL = Short term exposure limit

NA = not applicable

PBT = persistent, bioaccumulating and toxic (PBT).

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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