

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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

#### 1.1 Product identifier

Trade name : COPPER SUPREME SPECIAL BLEND® PLUS

SDS-Identcode : 476G

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

Use of the Sub-stance/Mixture : Industrial use, Thread Compound (Pipe Dope) and Jacking grease for use in Offshore industries, Mining, (without offshore industries)

Recommended restrictions on use : Do not use on oxygen lines or in oxygen enriched atmospheres.

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

Company : Bestolife Corporation INTERTEK FRANCE  
2777 N. Stemmons Frwy 27400 HEUDEBOUVILLE  
DALLAS, TX 75207, FRANCE

Telephone : 855-243-9164/972-865-8961 +33 385 991270

Telefax : 214-631-3047 +33 385 991288

E-mail address of person responsible for the SDS : [www.bestolife.com/christian.gimenez@intertek.com/if.reach@intertek.com](http://www.bestolife.com/christian.gimenez@intertek.com/if.reach@intertek.com)

#### 1.4 Emergency telephone number

CHEMTREC: +(44)-870-8200418; Interntnl: +1-703-527-3887 NHS Drct: +44 0845 4647 (Medical only)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
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Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P280 Wear eye protection/ face protection.

**Response:**  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Additional Labelling

EUH208 Contains 2,5-Bis(octyldithio)-1,3,4-thiadiazole, Benzenesulphonic acid, propenated, calcium salts, overbased. May produce an allergic reaction.

### 2.3 Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Copper metal powder	7440-50-8 231-159-6 01-2119480154-42	Flam. Sol. 1; H228 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 10 - < 20
Dilithium azelate	38900-29-7 254-184-4	Acute Tox. 4; H302	>= 1 - < 10
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1 240-130-7 051-003-00-9	Acute Tox. 4; H302 Acute Tox. 4; H332 Aquatic Chronic 1; H410	>= 1 - < 2.5
Calcium oxide	1305-78-8 215-138-9	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	>= 1 - < 3
Antimony, dialkyl dithiocarbamate	15890-25-2 240-028-2 051-003-00-9	Acute Tox. 4; H302 Acute Tox. 4; H332 Aquatic Chronic 1; H410	>= 1 - < 2.5
Quartz	14808-60-7 238-878-4	STOT RE 1; H372	>= 1 - < 10
Calcium bis(di C8-C10, branched, C9 rich, alkyl naphthalenesulphonate)	Not Assigned 01-2119980985-16	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
2,5-Bis(octyldithio)-1,3,4-thiadiazole	13539-13-4 236-912-2	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 0.1 - < 1

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
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		Skin Sens. 1; H317	
Diocetyl disulphide	822-27-5 212-494-7	Acute Tox. 3; H301 Acute Tox. 3; H331	>= 0.1 - < 1
Benzenesulphonic acid, propenated, calcium salts, over- based	68610-84-4 271-877-7	Skin Sens. 1; H317 Aquatic Chronic 4; H413	>= 0.1 - < 0.25
Hydrogen sulfide	7783-06-4 231-977-3 016-001-00-4	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280 Acute Tox. 2; H330 STOT SE 3; H335 Aquatic Acute 1; H400	>= 0.025 - < 0.1

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water.  
Remove contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.  
If easy to do, remove contact lens, if worn.  
Get medical attention.
- 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

- Risks : Causes serious eye irritation.  
  
May produce an allergic reaction.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

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5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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### 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 (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

### 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 products : Carbon oxides  
Metal oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Silicon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances 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.

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## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Follow safe handling advice and personal protective equipment 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.

# SAFETY DATA SHEET

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## COPPER SUPREME SPECIAL BLEND® PLUS

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5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or 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

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not get on skin or clothing.  
Do not swallow.  
Do not get in eyes.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
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, including 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

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Graphite	7782-42-5	TWA (inhalable dust)	10 mg/m <sup>3</sup>	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those			

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

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	<p>fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>			
		TWA (Respirable dust)	4 mg/m3	GB EH40
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>			
Copper metal powder	7440-50-8	TWA (Fumes)	0.2 mg/m3 (Copper)	GB EH40
		TWA (Dusts and mists)	1 mg/m3 (Copper)	GB EH40
		STEL (Dusts and mists)	2 mg/m3 (Copper)	GB EH40
Talc	14807-96-6	TWA (Respirable dust)	1 mg/m3	GB EH40
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those</p>			

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
 Date of first issue: 12.05.2015

	<p>fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, Talc is defined as the mineral talc together with other hydrous phyllosilicates including chlorite and carbonate materials which occur with it, but excluding amphibole asbestos and crystalline silica., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>			
Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony	15991-76-1	TWA	0.5 mg/m3 (antimony)	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
Calcium oxide	1305-78-8	TWA	2 mg/m3	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
		TWA (Respirable fraction)	1 mg/m3	2017/164/EU
Further information	Indicative			
		STEL (Respirable fraction)	4 mg/m3	2017/164/EU
Further information	Indicative			
Antimony, dialkyl dithiocarbamate	15890-25-2	TWA	0.5 mg/m3 (antimony)	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
Quartz	14808-60-7	TWA (Respirable dust)	0.1 mg/m3 (Silica)	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed			

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
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	above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhale-able' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
Hydrogen sulfide	7783-06-4	TWA	5 ppm 7 mg/m3	2009/161/EU
Further information	Indicative			
		STEL	10 ppm 14 mg/m3	2009/161/EU
Further information	Indicative			
		TWA	5 ppm 7 mg/m3	GB EH40
		STEL	10 ppm 14 mg/m3	GB EH40

**These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.**

Quartz

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Graphite	Consumers	Inhalation	Long-term local effects	0.3 mg/m3
	Consumers	Ingestion	Long-term systemic effects	813 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	1.2 mg/m3
Copper metal powder	Workers	Inhalation	Acute systemic effects	20 mg/m3
	Workers	Skin contact	Long-term systemic effects	137 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	237 mg/kg bw/day
	Consumers	Inhalation	Acute systemic effects	20 mg/m3
	Consumers	Inhalation	Long-term local effects	1 mg/m3
	Consumers	Inhalation	Acute local effects	1 mg/m3
	Consumers	Skin contact	Long-term systemic effects	137 mg/kg bw/day
	Consumers	Skin contact	Acute systemic ef-	273 mg/kg



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
Date of first issue: 12.05.2015

Dilithium azelate	Workers	Skin contact	Acute systemic effects	13.5 mg/kg bw/day
	Workers	Skin contact	Long-term systemic effects	13.5 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	13.5 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	0.172 mg/kg bw/day
	Consumers	Skin contact	Long-term local effects	0.023 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	13.5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	13.5 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	27 mg/kg bw/day
	Calcium oxide	Workers	Inhalation	Long-term local effects
Workers		Inhalation	Acute local effects	4 mg/m <sup>3</sup>
Consumers		Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
Consumers		Inhalation	Acute local effects	4 mg/m <sup>3</sup>
Calcium bis(di C8-C10, branched, C9 rich, alkyl naphthalenesulphonate)	Workers	Inhalation	Long-term systemic effects	2.23 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0.32 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	0.32 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0.55 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0.16 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	0.16 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0.16 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	0.16 mg/kg bw/day
	Benzenesulphonic acid, propenated, calcium salts, over-based	Workers	Inhalation	Long-term systemic effects
Workers		Inhalation	Acute systemic effects	668 mg/m <sup>3</sup>
Workers		Skin contact	Long-term systemic effects	8.33 mg/kg bw/day
Workers		Skin contact	Acute systemic effects	100 mg/kg bw/day
Consumers		Inhalation	Long-term systemic effects	11.8 mg/m <sup>3</sup>

# SAFETY DATA SHEET

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## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
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	Consumers	Inhalation	Acute systemic effects	267.2 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	4.17 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	50 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	1.7 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	50 mg/kg bw/day
Hydrogen sulfide	Workers	Inhalation	Long-term systemic effects	7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	14 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	14 mg/m <sup>3</sup>

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

Substance name	Environmental Compartment	Value	
Distillates (petroleum), hydrotreated 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	
Dilithium azelate	Soil	65 mg/kg	
	Fresh water	0.023 mg/l	
	Marine water	0.002 mg/l	
Calcium oxide	Intermittent use/release	0.23 mg/l	
	Fresh water	0.37 mg/l	
	Marine water	0.24 mg/l	
	Intermittent use/release	0.37 mg/l	
	Sewage treatment plant	2.27 mg/l	
	Soil	817.4 mg/kg dry weight (d.w.)	
	Oral (Secondary Poisoning)	9.33 mg/kg food	
	Calcium bis(di C8-C10, branched, C9 rich, alkyl naphthalenesulphonate)	Fresh water	0.27 µg/l
		Marine water	0.027 µg/l
Intermittent use/release		2.7 µg/l	
Sewage treatment plant		10 mg/l	
Fresh water sediment		4.69 mg/kg	
Marine sediment		0.469 mg/kg	
	Soil	0.936 mg/kg	
	Oral (Secondary Poisoning)	9.5 mg/kg food	
	Benzenesulphonic acid, propenated, calcium salts, over-based	Fresh water	1 mg/l
Marine water		1 mg/l	

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version 5.4      Revision Date: 01.10.2018      SDS Number: 116817-00015      Date of last issue: 07.05.2018  
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	Intermittent use/release	10 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	43500 mg/kg
	Marine sediment	3480 mg/kg
	Soil	8850 mg/kg
	Oral (Secondary Poisoning)	33333 mg/kg food
Hydrogen sulfide	Fresh water	0.00005 mg/l
	Marine water	0.0149 mg/l
	Intermittent use/release	0.0005 mg/l
	Sewage treatment plant	1.33 mg/l

### 8.2 Exposure controls

#### Engineering measures

Minimize workplace exposure concentrations.

#### Personal protective equipment

Eye protection : Wear the following personal protective equipment:  
Safety goggles

Hand protection  
Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Combined particulates and organic vapour type (A-P)

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : Viscous semi-solid  
Colour : dark, copper  
Odour : Petroleum  
Odour Threshold : No data available

pH : Not applicable (not an aqueous solution)

Melting point/freezing point : No data available

Initial boiling point and boiling : No data available

# SAFETY DATA SHEET

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Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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range  
Flash point :  $\geq 204$  °C  
Method: Pensky-Martens closed cup

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 : 1.2

Solubility(ies)  
Water solubility : negligible  
Partition coefficient: n-octanol/water : Not applicable  
Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, kinematic : Not applicable

Flow time : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

### 9.2 Other information

Molecular weight : No data available

Particle size : No data available

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## SECTION 10: Stability and reactivity

### 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.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

### 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 exposure : Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

#### 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

Acute inhalation toxicity : LC50 (Rat): > 5.11 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

##### **Dilithium azelate:**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg  
Method: OECD Test Guideline 420  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

### **Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:**

Acute oral toxicity : Acute toxicity estimate: 2,000 mg/kg  
Method: Expert judgement  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute inhalation toxicity : Acute toxicity estimate: 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Expert judgement  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Based on data from similar materials

### **Calcium oxide:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 425

Acute inhalation toxicity : (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,500 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

### **Antimony, dialkyl dithiocarbamate:**

Acute oral toxicity : Acute toxicity estimate: 2,000 mg/kg  
Method: Expert judgement  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Expert judgement

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

### Quartz:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

### Calcium bis(di C8-C10, branched, C9 rich, alkyl)naphthalenesulphonate):

Acute oral toxicity : LD50 (Rat): > 2,500 mg/kg  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Based on data from similar materials

### 2,5-Bis(octyldithio)-1,3,4-thiadiazole:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3.08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

### Diocetyl disulphide:

Acute oral toxicity : LD50 (Rat): > 290 - 500 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): 5.05 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Remarks: Based on data from similar materials

### Benzenesulphonic acid, propenated, calcium salts, overbased:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402

### Hydrogen sulfide:

Acute inhalation toxicity : LC50 (Rat): 444 ppm  
Exposure time: 4 h  
Test atmosphere: gas

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

### Skin corrosion/irritation

Not classified based on available information.

#### Components:

##### **Copper metal powder:**

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

##### **Dilithium azelate:**

Method	:	OECD Test Guideline 439
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

##### **Calcium oxide:**

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation
Remarks	:	Based on data from similar materials

##### **Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):**

Species	:	Rabbit
Result	:	Skin irritation
Remarks	:	Based on data from similar materials

##### **2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Species	:	Rabbit
Result	:	Skin irritation

##### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

Species	:	Rabbit
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Components:

##### **Copper metal powder:**

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

##### **Dilithium azelate:**

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



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

### Calcium oxide:

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irreversible effects on the eye

### Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days  
Remarks : Based on data from similar materials

### 2,5-Bis(octyldithio)-1,3,4-thiadiazole:

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

### Benzenesulphonic acid, propenated, calcium salts, overbased:

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

#### Dilithium azelate:

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : negative  
Remarks : Based on data from similar materials

#### Calcium oxide:

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Result : negative  
Remarks : Based on data from similar materials

### **Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):**

Test Type : Human repeat insult patch test (HRIPT)  
Exposure routes : Skin contact  
Result : negative

### **2,5-Bis(octyldithio)-1,3,4-thiadiazole:**

Exposure routes : Skin contact  
Species : Guinea pig  
Result : positive

Assessment : Probability or evidence of skin sensitisation in humans

### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : positive

Assessment : Probability or evidence of skin sensitisation in humans

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **Copper metal powder:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Method: Directive 67/548/EEC, Annex V, B.12.  
Result: negative  
Remarks: Based on data from similar materials

#### **Dilithium azelate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

### Calcium oxide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

### Antimony, dialkyl dithiocarbamate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: equivocal

### Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

### Benzenesulphonic acid, propenated, calcium salts, overbased:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

### Hydrogen sulfide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)  
Species: Rat  
Application Route: inhalation (gas)  
Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Product:**

Carcinogenicity - Assessment : Petroleum distillates have been classified as not carcinogenic based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L).

### **Components:**

#### **Calcium oxide:**

Species : Rat  
Application Route : Ingestion  
Exposure time : 104 weeks  
Result : negative  
Remarks : Based on data from similar materials

#### **Quartz:**

Species : Humans  
Application Route : inhalation (dust/mist/fume)  
Result : positive  
Remarks : IARC: (International Agency for Research on Cancer)  
These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **Copper metal powder:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rabbit  
Application Route: Ingestion  
Result: negative

#### **Dilithium azelate:**

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Application Route: Skin contact  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: Skin contact  
Result: negative  
Remarks: Based on data from similar materials

### Calcium oxide:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

### Antimony, dialkyl dithiocarbamate:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on foetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Result: negative

### Hydrogen sulfide:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (gas)  
Result: negative

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

### STOT - single exposure

Not classified based on available information.

#### Components:

##### Calcium oxide:

Assessment : May cause respiratory irritation.

##### Hydrogen sulfide:

Assessment : May cause respiratory irritation.

### STOT - repeated exposure

Not classified based on available information.

#### Components:

##### Quartz:

Exposure routes : inhalation (dust/mist/fume)  
Target Organs : Lungs  
Assessment : Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

### Repeated dose toxicity

#### Components:

##### Copper metal powder:

Species : Rat  
NOAEL :  $\geq 2$  mg/m<sup>3</sup>  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 28 Days

##### Dilithium azelate:

Species : Rat  
NOAEL : 1,089.75 mg/kg  
Application Route : Skin contact  
Exposure time : 28 Days  
Remarks : Based on data from similar materials

##### Calcium oxide:

Species : Rat  
NOAEL :  $\geq 0.399$  mg/l  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 90 Days  
Method : OECD Test Guideline 413

##### Antimony, dialkyl dithiocarbamate:

Species : Rat  
NOAEL :  $\geq 1,000$  mg/kg  
Application Route : Ingestion

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

Exposure time : 54 Days

### Quartz:

Species : Humans  
LOAEL : 0.053 mg/m<sup>3</sup>  
Application Route : inhalation (dust/mist/fume)  
Remarks : These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

### Aspiration toxicity

Not classified based on available information.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,250 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 15,470 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 30,940 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 70,100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201

NOEC (Selenastrum capricornutum (green algae)): 60,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201

#### Components:

##### **Copper metal powder:**

Toxicity to fish : LC50 : > 10 - 100 µg/l  
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: > 1 - 10 µg/l

M-Factor (Chronic aquatic toxicity) : 10

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

### Dilithium azelate:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials
- ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

### Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:

- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.02 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211  
Remarks: Based on data from similar materials

- M-Factor (Chronic aquatic toxicity) : 1

### Ecotoxicology Assessment

- Chronic aquatic toxicity : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Calcium oxide:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials
- EC10 (Pseudokirchneriella subcapitata (green algae)): > 1



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 : > 100 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 mg/l  
Exposure time: 14 d  
Species: Crangon crangon (shrimp)  
Remarks: Based on data from similar materials

### Antimony, dialkyl dithiocarbamate:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.02 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

### Ecotoxicology Assessment

Chronic aquatic toxicity : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Quartz:

#### Ecotoxicology Assessment

Acute aquatic toxicity : No toxicity at the limit of solubility

Chronic aquatic toxicity : No toxicity at the limit of solubility

### Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 100 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC10 : 110 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: Based on data from similar materials

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

- Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1,000 mg/l  
Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Remarks: Based on data from similar materials
- Toxicity to algae : NOELR (Pseudokirchneriella subcapitata (green algae)): 1,000 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC50 : > 10,000 mg/l  
Exposure time: 3 h  
Remarks: Based on data from similar materials

### **Hydrogen sulfide:**

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.0144 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia sp. (water flea)): 0.12 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae : ErC50 (Scenedesmus subspicatus): 1.87 mg/l  
Exposure time: 24 h
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to microorganisms : EC50 : 29 mg/l  
Method: ISO 8192

## **12.2 Persistence and degradability**

### **Product:**

- Biodegradability : Result: Readily biodegradable.

### **Components:**

#### **Dilithium azelate:**

- Biodegradability : Result: Readily biodegradable.  
Biodegradation: 83 %  
Exposure time: 30 d

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

---

Method: OECD Test Guideline 301D  
Remarks: Based on data from similar materials

### **Tris[bis(2-ethylhexyl)dithiocarbamate-S,S'] antimony:**

Biodegradability : Result: Not readily biodegradable.  
Remarks: Based on data from similar materials

### **Antimony, dialkyl dithiocarbamate:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 20 %  
Exposure time: 28 d

### **Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 16 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Based on data from similar materials

### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 12.5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Based on data from similar materials

### **Hydrogen sulfide:**

Biodegradability : Result: rapidly degradable

## 12.3 Bioaccumulative potential

### **Components:**

#### **Dilithium azelate:**

Partition coefficient: n- : log Pow: -3.53  
octanol/water

#### **Benzenesulphonic acid, propenated, calcium salts, overbased:**

Partition coefficient: n- : log Pow: 5.8  
octanol/water

## 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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

### 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 discussion with the waste disposal authorities.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

### SECTION 14: Transport information

#### 14.1 UN number

- ADN : UN 3077
- ADR : UN 3077
- RID : UN 3077
- IMDG : UN 3077
- IATA : UN 3077

#### 14.2 UN proper shipping name

- ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper metal powder, Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony)
- ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper metal powder, Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony)
- RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper metal powder, Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony)
- IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Copper metal powder, Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony)
- IATA : Environmentally hazardous substance, solid, n.o.s.  
(Copper metal powder, Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony)

#### 14.3 Transport hazard class(es)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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**ADN** : 9  
**ADR** : 9  
**RID** : 9  
**IMDG** : 9  
**IATA** : 9

### 14.4 Packing group

**ADN**  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9

**ADR**  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (-)

**RID**  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9

**IMDG**  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous

**IATA (Passenger)**  
Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous

### 14.5 Environmental hazards

**ADN**  
Environmentally hazardous : yes

**ADR**  
Environmentally hazardous : yes

**RID**  
Environmentally hazardous : yes

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

### IMDG

Marine pollutant : yes

### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : yes

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 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.

34 Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

### The components of this product are reported in the following inventories:

- DSL : All components of this product are on the Canadian DSL
- TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
- AICS : All ingredients listed or exempt.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

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

### Full text of H-Statements

- H220 : Extremely flammable gas.  
H228 : Flammable solid.  
H280 : Contains gas under pressure; may explode if heated.  
H301 : Toxic if swallowed.  
H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H330 : Fatal if inhaled.  
H331 : Toxic if inhaled.  
H332 : Harmful if inhaled.  
H335 : May cause respiratory irritation.  
H372 : Causes damage to organs through prolonged or repeated exposure if inhaled.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H413 : May cause long lasting harmful effects to aquatic life.

### Full text of other abbreviations

- Acute Tox. : Acute toxicity  
Aquatic Acute : Short-term (acute) aquatic hazard  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Dam. : Serious eye damage  
Eye Irrit. : Eye irritation  
Flam. Gas : Flammable gases  
Flam. Sol. : Flammable solids  
Press. Gas : Gases under pressure  
Skin Irrit. : Skin irritation  
Skin Sens. : Skin sensitisation  
STOT RE : Specific target organ toxicity - repeated exposure  
STOT SE : Specific target organ toxicity - single exposure  
2009/161/EU : Europe. COMMISSION DIRECTIVE 2009/161/EU establishing

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

2017/164/EU : a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC  
: Commission Directive (EU) 2017/164 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
2009/161/EU / TWA : Limit Value - eight hours  
2009/161/EU / STEL : Short term exposure limit  
2017/164/EU / STEL : Short term exposure limit  
2017/164/EU / TWA : Limit Value - eight hours  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)  
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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; SVHC - Substance of Very High Concern; 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 compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## COPPER SUPREME SPECIAL BLEND® PLUS

Version	Revision Date:	SDS Number:	Date of last issue: 07.05.2018
5.4	01.10.2018	116817-00015	Date of first issue: 12.05.2015

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### Classification of the mixture:

Eye Irrit. 2

H319

### Classification procedure:

Calculation method

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GB / EN