

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

- Product Name** • High Temp Cop-R-Lube®
- Synonyms** • Thread Compound, Sealant, Anti-Seize, Lubricant

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

- Relevant identified use(s)** • Anti-Seize, Lubricant, and Sealant

1.3 Details of the supplier of the safety data sheet

- Manufacturer** • Topco Oilsite Products Ltd.
 Bay 7, 3401 - 19th Street N.E.
 Calgary, Alberta T2E 6S8
 Canada
 www.topcoilsite.com
 msds@topcoilsite.com
- Telephone (General)** • 403-219-0255

1.4 Emergency telephone number

- Manufacturer** • 403-219-0255 - Manufacturer

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

- CLP**
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
 - Reproductive Toxicity 1B - H360D
 - Specific Target Organ Toxicity Single Exposure 1 - H370
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373
 - Hazardous to the aquatic environment Acute 1 - H400
 - Hazardous to the aquatic environment Chronic 1 - H410

2.2 Label Elements

CLP

DANGER



- Hazard statements** • H335 - May cause respiratory irritation
 H360D - May damage the unborn child.
 H370 - Causes damage to organs.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention** • P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER/doctor if you feel unwell.
P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P321 - Specific treatment, see supplemental first aid information.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P391 - Collect spillage.
- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other Hazards

- CLP**
 - Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

UN GHS Revision 4

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Fourth Revised Edition

2.1 Classification of the substance or mixture

- UN GHS**
 - Skin Mild Irritation 3
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Reproductive Toxicity 1B
Specific Target Organ Toxicity Single Exposure 1
Specific Target Organ Toxicity Repeated Exposure 2
Hazardous to the aquatic environment Acute 1
Hazardous to the aquatic environment Chronic 1

2.2 Label elements

UN GHS

DANGER



- Hazard statements** • Causes mild skin irritation
May cause respiratory irritation
May damage fertility or the unborn child.
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention** • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.

Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.
 Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 If skin irritation occurs: Get medical advice/attention.
 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
 Specific treatment, see supplemental first aid information.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 Collect spillage.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS

- Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain
 According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
 Reproductive Toxicity 1B
 Specific Target Organ Toxicity Single Exposure 1
 Specific Target Organ Toxicity Repeated Exposure 2
 Hazards Not Otherwise Classified - Health Hazards - Metal fume fever

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • May cause respiratory irritation
 May damage fertility or the unborn child.
 Causes damage to organs.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention** • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 IF exposed: Call POISON CENTER or doctor/physician.
 Specific treatment, see supplemental first aid information.
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.

- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.
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Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Reproductive Toxicity 1B
Specific Target Organ Toxicity Single Exposure 1
Specific Target Organ Toxicity Repeated Exposure 2
Health Hazards Not Otherwise Classified 1

2.2 Label elements

WHMIS 2015

DANGER



- Hazard statements** • May cause respiratory irritation
May damage fertility or the unborn child.
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.
Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Precautionary statements

- Prevention** • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Call a POISON CENTER/doctor.
Specific treatment, see supplemental first aid information.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).
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Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	CAS: 64741-88-4 EC Number: 265-090-8 EU Index: 649-454-00-7	45.5% TO 67.5%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Skin-Rabbit LD50 • >2000 mg/kg	EU CLP: Annex VI, Table 3.1: Carc. 1B, H350 UN GHS Revision 4: Skin Irrit. 3; Asp. Tox. 2 OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Copper oxide	CAS: 1317-38-0	25% TO 35%	Ingestion/Oral-Rat LD50 • 470 mg/kg	EU CLP: Annex VI, Table 3.1: Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100) UN GHS Revision 4: Acute Tox. 4 (Orl); Aquatic Acute 1 (M=10); Aquatic Chronic 1 (M=1) OSHA HCS 2012: Acute Tox. 4 (Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever WHMIS 2015: Acute Tox. 4 (Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever	NDA
Copper	CAS: 7440-50-8 EC Number: 231-159-6	31.5% TO 35%	NDA	EU CLP: Repr. 1B, H360D (Oral); STOT SE 1, H370 (Kidney/Oral); STOT SE 3: Resp. Irrit., H335; STOT RE 2, H373 (Liver/Oral); Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=10) UN GHS Revision 4: Repr. 1B (Orl); STOT SE 1 (Kidney/Orl); STOT SE 3: Resp. Irrit.; STOT RE 2 (Liver/Orl); Aquatic Acute 1 (M=100); Aquatic Chronic 1 (M=10) OSHA HCS 2012: Comb. Dust; Repr. 1B (Orl); STOT SE 1 (Kidney/Orl); STOT SE 3: Resp. Irrit.; STOT RE 2 (Liver/Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever WHMIS 2015: Comb. Dust; Repr. 1B (Orl); STOT SE 1 (Kidney/Orl); STOT SE 3: Resp. Irrit.; STOT RE 2 (Liver/Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever	NDA
Sulfonic acid, petroleum, calcium salt	CAS: 61789-86-4 EINECS: 263-093-9	0.65% TO 3.75%	NDA	EU CLP: Not Classified UN GHS Revision 4: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Calcium monocarbonate	CAS: 471-34-1 EC Number: 207-439-9	0.65% TO 3.75%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	EU CLP: Skin Irrit. 2, H315; Eye Irrit. 2, H319 UN GHS Revision 4: Skin Irrit. 2; Eye Irrit. 2 OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2 WHMIS 2015: Skin Irrit. 2; Eye Irrit. 2	NDA
				EU CLP: Acute Tox. 4, H302	

Benzenesulfonic acid, dodecyl-, calcium salt	CAS:26264-06-2	0.65% TO 3.75%	Ingestion/Oral-Rat LD50 • 1300 mg/kg	UN GHS Revision 4: Acute Tox. 4 (orl); Aquatic Acute 2 OSHA HCS 2012: Acute Tox. 4 (orl) WHMIS 2015: Acute Tox. 4 (orl)	NDA
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	CAS:68584-23-6 EINECS:271-529-4	0.65% TO 3.75%	NDA	EU CLP: Not Classified UN GHS Revision 4: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Mineral oil, white	CAS:8042-47-5 EC Number:232-455-8	0.35% TO 1.75%	Ingestion/Oral-Rat LD50 • >5000 mg/kg	EU CLP: Not Classified UN GHS Revision 4: Asp. Tox. 2 OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Get medical attention if symptoms occur.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Get medical attention if symptoms occur.

Ingestion

- Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • The product itself does not burn.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate the area. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.
- Emergency Procedures**
- Keep unauthorized personnel away. Stay upwind.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Carefully shovel or sweep up spilled material and place in suitable container.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

- Handling**
- Use only with adequate ventilation. Use good safety and industrial hygiene practices. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Keep container tightly closed. Store in a cool, dry, well-ventilated place.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Argentina	Australia	Canada Alberta	Canada British Columbia
Calcium mon carbonate (471-34-1)	TWAs	Not established	Not established	10 mg/m ³ TWA (containing no asbestos and <1% crystalline silica, inhalable dust)	10 mg/m ³ TWA	Not established
Copper oxide	TWAs	1 mg/m ³ TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	Not established
Copper (7440-50-8)	TWAs	0.2 mg/m ³ TWA (fume)	0.2 mg/m ³ TWA [CMP] (fume); 1 mg/m ³ TWA [CMP] (dust and mist)	1 mg/m ³ TWA (dust and mist); 0.2 mg/m ³ TWA (fume)	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dust and mist)	1 mg/m ³ TWA (dust and mist); 0.2 mg/m ³ TWA (fume)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
				20 mg/m ³ STEL		20 mg/m ³ STEL

Calcium monocarbonate (471-34-1)	STELs	Not established	Not established	(listed under Limestone)	Not established	(listed under Limestone)
	TWAs	Not established	Not established	10 mg/m3 TWA (listed under Limestone)	Not established	10 mg/m3 TWA (listed under Limestone)
Copper oxide	TWAs	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established
Copper (7440-50-8)	TWAs	0.2 mg/m3 TWA (fume)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.2 mg/m3 TWA (fume)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)
	STELs	Not established	Not established	3 mg/m3 STEL (dust and mist); 0.6 mg/m3 STEL (fume)	Not established	3 mg/m3 STEL (dust and mist); 0.6 mg/m3 STEL (fume)

Exposure Limits/Guidelines (Con't.)

	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Calcium monocarbonate (471-34-1)	TWAs	Not established	10 mg/m3 TWAEV (total dust)	10 mg/m3 TWA (listed under Limestone)	30 mppcf TWA; 10 mg/m3 TWA	Not established
	STELs	Not established	Not established	20 mg/m3 STEL (listed under Limestone)	20 mg/m3 STEL	Not established
Copper (7440-50-8)	STELs	Not established	Not established	0.6 mg/m3 STEL (fume); 3 mg/m3 STEL (dust and mist)	0.2 mg/m3 STEL (fume); 2 mg/m3 STEL (dust and mist)	2.5 mg/m3 STEL (dust); 0.6 mg/m3 STEL (fume)
	TWAs	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.2 mg/m3 TWAEV (fume); 1 mg/m3 TWAEV (dust and mist)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	1 mg/m3 TWA (dust); 0.2 mg/m3 TWA (fume)

Exposure Limits/Guidelines (Con't.)

	Result	France	Germany DFG	Germany TRGS	India	Indonesia
Mineral oil, white (8042-47-5)	TWAs	Not established	Not established	5 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, respirable fraction, exposure factor 4)	Not established	Not established
	Ceilings	Not established	20 mg/m3 Peak (respirable fraction)	Not established	Not established	Not established
	MAKs	Not established	5 mg/m3 TWA MAK (respirable fraction)	Not established	Not established	Not established
Calcium monocarbonate (471-34-1)	TWAs	10 mg/m3 TWA [VME]	Not established	Not established	Not established	Not established
Sulfonic acid, petroleum, calcium salt (61789-86-4)	TWAs	Not established	Not established	5 mg/m3 TWA AGW (respirable fraction, exposure factor 4)	Not established	Not established
	Ceilings	Not established	20 mg/m3 Peak (respirable fraction)	Not established	Not established	Not established

	MAKs	Not established	5 mg/m3 TWA MAK (respirable fraction)	Not established	Not established	Not established
Copper (7440-50-8)	TWAs	0.2 mg/m3 TWA [VME] (fume); 1 mg/m3 TWA [VME] (dust, as Cu)	Not established	Not established	0.2 mg/m3 TWA (fume)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)
	STELs	2 mg/m3 STEL [VLCT] (dust, as Cu)	Not established	Not established	Not established	Not established
	Ceilings	Not established	0.02 mg/m3 Peak (respirable fraction)	Not established	Not established	Not established
	MAKs	Not established	0.01 mg/m3 TWA MAK (including inorganic copper compounds, respirable fraction)	Not established	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Israel	Malaysia	Mexico	Netherlands	NIOSH
Calcium mon carbonate (471-34-1)	TWAs	Not established	Not established	Not established	Not established	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Copper oxide	TWAs	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	0.1 mg/m3 TWA (fume, as Cu)
Copper	STELs	Not established	Not established	2 mg/m3 STEL [PPT-CT] (fume, as Cu); 2 mg/m3 STEL [PPT-CT] (dust and mist, as Cu)	Not established	Not established
	TWAs	0.2 mg/m3 TWA (fume)	0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.2 mg/m3 TWA VLE-PPT (fume, as Cu); 1 mg/m3 TWA VLE-PPT (dust and mist, as Cu)	0.1 mg/m3 TWA (inhalable fraction)	1 mg/m3 TWA (dust and mist); 0.1 mg/m3 TWA (fume)

Exposure Limits/Guidelines (Con't.)

	Result	OSHA	OSHA Vacated	Portugal	Russia	Singapore
Calcium mon carbonate (471-34-1)	TWAs	Not established	Not established	10 mg/m3 TWA [VLE-MP] (particulate matter containing no Asbestos and <1% Crystalline silica)	Not established	Not established
Copper (7440-50-8)	TWAs	0.1 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)	0.1 mg/m3 TWA (dust, fume, mist, as Cu)	0.2 mg/m3 TWA [VLE-MP] (fume); 1 mg/m3 TWA [VLE-MP] (dust and mist, as Cu)	0.5 mg/m3 TWA (aerosol)	0.2 mg/m3 PEL (fume); 1 mg/m3 PEL (dust and mist)
	STELs	Not established	Not established	Not established	1 mg/m3 STEL (aerosol)	Not established

Exposure Limits/Guidelines (Con't.)

	Result	United Kingdom	United States - California	Venezuela
Calcium mon carbonate (471-34-1)	TWAs	Not established	5 mg/m3 PEL (respirable fraction, listed under Particulates not otherwise regulated); 10 mg/m3 PEL (total dust, listed	10 mg/m3 TWA [VTRE-L-8/40

			under Particulates not otherwise regulated)	
Copper (7440-50-8)	TWAs	1 mg/m3 TWA (dust and mists); 0.2 mg/m3 TWA (fume)	0.1 mg/m3 PEL (fume); 1 mg/m3 PEL (dust and mist)	0.2 mg/m3 TWA [VTRE-L-8/40 (fume); 1 mg/m3 TWA [VTRE-L- 8/40 (dust and mist)
	STELs	0.6 mg/m3 STEL (calculated, fume); 2 mg/m3 STEL (dust and mist)	Not established	Not established

Exposure Control Notations

Japan

- Copper oxide as Copper compounds: **Sensitizers:** (Group 2 skin sensitizer (Evaluation does not necessarily apply to all individuals within the group))
- Copper (7440-50-8): **Sensitizers:** (Group 2 skin sensitizer)
- Copper as Copper compounds: **Sensitizers:** (Group 2 skin sensitizer (Evaluation does not necessarily apply to all individuals within the group))

Egypt

- Calcium monocarbonate (471-34-1): **Nuisance Dusts:** (10 mg/m3 TWA (containing <1% Quartz, total dust); 30 mppcf TWA (containing <1% Quartz, total dust); 3 mg/m3 TWA (containing <1% Quartz, inhalable dust))

Russia

- Mineral oil, white (8042-47-5): **Skin:** (Skin notation)

Germany DFG

- Sulfonic acid, petroleum, calcium salt (61789-86-4): **Pregnancy:** (classification not yet possible (respirable fraction))
- Copper (7440-50-8): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- Mineral oil, white (8042-47-5): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (respirable fraction))

Exposure Limits Supplemental

ACGIH

- Copper oxide as Copper compounds: **TLV Basis - Critical Effects:** (gastrointestinal (dust and mist); irritation (dust and mist))
- Copper (7440-50-8): **TLV Basis - Critical Effects:** (metal fume fever (fume))
- Copper as Copper compounds: **TLV Basis - Critical Effects:** (gastrointestinal (dust and mist); irritation (dust and mist))

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

STEL = Short Term Exposure Limits are based on 15-minute exposures

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Brown/copper semi-solid paste with mild petroleum odor.
Color	Brown/copper	Odor	Mild, petroleum.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Keep away from heat, sparks and flame.

10.5 Incompatible materials

- Strong oxidizing agents.

10.6 Hazardous decomposition products

- Carbon Monoxide, Carbon Dioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Copper oxide (25% TO 35%)	1317-38-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 470 mg/kg
Calcium monocarbonate (0.65% TO 3.75%)	471-34-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 6450 mg/kg; Irritation: Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Multi-dose Toxicity: Ingestion/Oral-Woman TDLo • 4.08 g/kg 30 Day(s)-Intermittent; Vascular:BP elevation not characterized in autonomic section; Gastrointestinal:Changes in structure or function of endocrine pancreas; Biochemical:Metabolism (intermediary):Effect on inflammation or mediation of inflammation
Sulfonic acid, petroleum, calcium salt (0.65% TO 3.75%)	61789-86-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5 g/kg; Gastrointestinal:Hypermotility, diarrhea; Skin-Rabbit LD50 • >5 g/kg
Copper (31.5% TO 35%)	7440-50-8	Acute Toxicity: Ingestion/Oral-Mouse TDLo • 108 mg/kg; Behavioral:Tremor; Gastrointestinal:Hypermotility, diarrhea; Gastrointestinal:Nausea or vomiting; Ingestion/Oral-Mouse TDLo • 158 mg/kg; Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis); Ingestion/Oral-Mouse TDLo • 232 mg/kg; Kidney, Ureter, and Bladder:Changes primarily in glomeruli; Blood:Changes in spleen; Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Multi-dose Toxicity: Ingestion/Oral-Rabbit TDLo • 3 g/kg 60 Day(s)-Continuous; Cardiac:Other changes; Liver:Hepatitis (hepatocellular necrosis), zonal; Related to Chronic Data:Death in the Other Multiple Dose data type field; Reproductive: Ingestion/Oral-Rat TDLo • 152 mg/kg (22W pre); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Central nervous system; Ingestion/Oral-Rat TDLo • 1210 µg/kg (35W pre); Reproductive Effects:Effects on Fertility:Pre-implantation mortality; Reproductive Effects:Effects on Fertility:Post-implantation mortality; Ingestion/Oral-Rat TDLo • 1520 µg/kg (22W pre); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Tumorigen / Carcinogen: Ingestion/Oral-Mouse TDLo • 10.08 mg/kg 12 Week(s)-Continuous; Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Other changes
Mineral oil, white (0.35% TO 1.75%)	8042-47-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 92 g/kg 92 Day(s)-Continuous; Liver:Changes in liver weight; Blood:Changes in leucocyte (WBC) count; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain
Benzenesulfonic acid, dodecyl-, calcium salt (0.65% TO 3.75%)	26264-06-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1300 mg/kg

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking UN GHS 4 • Skin Mild Irritation 3 OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin sensitization	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking

	WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking UN GHS 4 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 1B UN GHS 4 • Toxic to Reproduction 1B OSHA HCS 2012 • Toxic to Reproduction 1B WHMIS 2015 • Toxic to Reproduction 1B
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 1; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation UN GHS 4 • Specific Target Organ Toxicity Single Exposure 1; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 1; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation WHMIS 2015 • Specific Target Organ Toxicity Single Exposure 1; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 UN GHS 4 • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2 WHMIS 2015 • Specific Target Organ Toxicity Repeated Exposure 2

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause respiratory irritation.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Causes mild skin irritation.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Ingestion of large amounts of copper may cause damage to the kidneys.
- Chronic (Delayed)** • Repeated and prolonged exposure to copper may affect the liver.

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

11.2 Other information

- Heating above the melting point releases metallic oxides which may cause metal fume fever which is an influenza like illness. Symptoms include headache, metallic taste in the mouth, cough, thirst, throat irritation, shortness of breath, fever, sweating and pain in the limbs. This illness is not permanent and recovery usually occurs within 24-48 hours after onset.

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

Components		
Copper oxide (25% TO 35%)	1317-38-0	<p>Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Gambusia affinis (Western Mosquitofish)</i> >56000 mg/L 15 Day(s) NOEC <i>Cyprinus carpio (Common Carp)</i> 0.0128 mg/L</p> <p>Aquatic Toxicity-Crustacea: 48 Hour(s) EC50 <i>Daphnia magna (Water Flea)</i> 92.7 mg/L</p> <p>Aquatic Toxicity-Algae and Other Aquatic Plant(s): 72 Hour(s) EC50 <i>Pseudokirchneriella subcapitata (Green Algae)</i> 0.014 mg/L 3 Day(s) NOEC <i>Pseudokirchneriella subcapitata (Green Algae)</i> 0.421 mg/L</p>
Copper (31.5% TO 35%)	7440-50-8	<p>Aquatic Toxicity-Fish: 96 Hour(s) LC50 <i>Osteichthyes (Bony Fishes)</i> 0.0051 mg/L 7 Day(s) NOEC <i>Salmo trutta (Brown Trout)</i> 0.0075 mg/L</p> <p>Aquatic Toxicity-Crustacea: 21 Day(s) NOEC <i>Daphnia magna (Water Flea)</i> 0.002 mg/L 48 Hour(s) EC50 <i>Ceriodaphnia dubia (Water Flea)</i> 0.001 mg/L</p> <p>Aquatic Toxicity-Algae and Other Aquatic Plant(s): 48 Hour(s) EC50 <i>Chlorella sp. (Green Algae)</i> 0.0011 mg/L 7 Day(s) NOEC <i>Laminaria saccharina (Tangleweed, Brown Algae)</i> 0.01 mg/L</p>

- Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN3077	Environmentally hazardous substance, solid, n.o.s. (copper, cupric oxide)	9	III	Marine Pollutant
TDG	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper, cupric oxide)	9	III	Marine Pollutant
IMO/IMDG	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper, cupric oxide)	9	III	Marine Pollutant
IATA/ICAO	UN3077	Environmentally hazardous substance, solid, n.o.s. (copper, cupric oxide)	9	III	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

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

State Right To Know		
Component	CAS	PA
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	No
Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Yes
Calcium mon carbonate	471-34-1	No
Copper	7440-50-8	Yes
Copper oxide	1317-38-0	No
Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	No
Mineral oil, white	8042-47-5	No
Sulfonic acid, petroleum, calcium salt	61789-86-4	No

Inventory						
Component	CAS	Australia AICS	Canada DSL	Canada NDSL	China	EU EINECS
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Yes	Yes	No	Yes	Yes
Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Yes	Yes	No	Yes	Yes
Calcium monocarbonate	471-34-1	Yes	Yes	No	Yes	Yes
Copper	7440-50-8	Yes	Yes	No	Yes	Yes
Copper oxide	1317-38-0	Yes	Yes	No	Yes	Yes
Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Yes	Yes	No	Yes	Yes
Mineral oil, white	8042-47-5	Yes	Yes	No	Yes	Yes
Sulfonic acid, petroleum, calcium salt	61789-86-4	Yes	Yes	No	Yes	Yes

Inventory (Con't.)				
Component	CAS	EU ELNICS	Japan ENCS	TSCA
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	No	No	Yes
Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	No	Yes	Yes
Calcium monocarbonate	471-34-1	No	Yes	Yes
Copper	7440-50-8	No	No	Yes
Copper oxide	1317-38-0	No	Yes	Yes
Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	No	No	Yes
Mineral oil, white	8042-47-5	No	Yes	Yes
Sulfonic acid, petroleum, calcium salt	61789-86-4	No	Yes	Yes

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Sulfonic acid, petroleum, calcium salt	61789-86-4	Not Listed
• Copper oxide	1317-38-0	Not Listed
• Copper	7440-50-8	Not Listed
• Mineral oil, white	8042-47-5	Not Listed
• Calcium monocarbonate	471-34-1	Not Listed
• Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	Not Listed
• Benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	Not Listed
• Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic	64741-88-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H350 - May cause cancer.

Revision Date

- 03/July/2018

Last Revision Date

- 03/July/2018

Preparation Date

- 01/August/2016

Disclaimer/Statement of Liability

- The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key to abbreviations

NDA = No Data Available