

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

### 1.1 Product identifier

**Product Name**

• **Green-Seal®Supreme**

**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, Sealant, sealant and lubricant for API casing, tubing, and line pipe connections

### 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.topcooilsite.com  
msds@topcooilsite.com

**Telephone (General)** • 403-219-0255

### 1.4 Emergency telephone number

**Manufacturer**

• 403-219-0255

**Poison & Drug Information Service (Alberta Health Services)**

• 1-800-332-1414

## 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**

• Hazardous to the aquatic environment Acute 1 - H400  
Hazardous to the aquatic environment Chronic 1 - H410

### 2.2 Label Elements

**CLP**

#### WARNING



**Hazard statements** • H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

#### Precautionary statements

**Prevention** • P273 - Avoid release to the environment.

**Response** • P391 - Collect spillage.

**Storage/Disposal** • 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.
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## 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**
- Acute Toxicity Oral 5
  - Skin Mild Irritation 3
  - Hazardous to the aquatic environment Acute 2
  - Hazardous to the aquatic environment Chronic 3

### 2.2 Label elements

**UN GHS**

#### **WARNING**

- Hazard statements**
- May be harmful if swallowed
  - Causes mild skin irritation
  - Toxic to aquatic life
  - Harmful to aquatic life with long lasting effects

#### **Precautionary statements**

- Prevention**
- Avoid release to the environment.
- Response**
- If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell.

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

- Supplemental information**
- 40.6 - 53 percent of this product consists of an ingredient of unknown toxicity.

### 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
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## United States (US)

According to: **OSHA 29 CFR 1910.1200 HCS**

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Hazards Not Otherwise Classified - Health Hazards - Metal fume fever

### 2.2 Label elements

**OSHA HCS 2012**

- Hazard statements**
- No label element(s) required

### 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.

## Canada

According to: WHMIS 2015

### 2.1 Classification of the substance or mixture

**WHMIS 2015** • Health Hazards Not Otherwise Classified 1

### 2.2 Label elements

**WHMIS 2015**

#### **DANGER**

**Hazard statements** • 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**

### 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
Solvent-refined heavy paraffinic petroleum distillates	<b>CAS:</b> 64741-88-4 <b>EC Number:</b> 265-090-8 <b>EU Index:</b> 649-454-00-7	30% TO 42%	NDA	<b>EU CLP:</b> Annex VI, Table 3.1: Carc. 1B, H350 <b>UN GHS Revision 4:</b> Skin Irrit. 3; Asp. Tox. 2 <b>OSHA HCS 2012:</b> Not Classified <b>WHMIS 2015:</b> Not Classified	NDA
Graphite	<b>CAS:</b> 7782-42-5 <b>EC Number:</b> 231-955-3	20% TO 35%	NDA	<b>EU CLP:</b> STOT RE 1 (Lungs / Inhl), H372 <b>UN GHS Revision 4:</b> STOT RE 1 (Lungs / Inhl) <b>OSHA HCS 2012:</b> Comb. Dust; STOT RE 1 (Lungs / Inhl) <b>WHMIS 2015:</b> Comb. Dust; STOT RE 1 (Lungs / Inhl)	NDA
Talc	<b>CAS:</b> 14807-96-6 <b>EC Number:</b> 238-877-9	10% TO 20%	NDA	<b>EU CLP:</b> STOT RE 1 (Lungs / Inhl), H372 <b>UN GHS Revision 4:</b> Skin Irrit. 3; STOT RE 1 (Lungs / Inhl) <b>OSHA HCS 2012:</b> STOT RE 1 (Lungs / Inhl) <b>WHMIS 2015:</b> STOT RE 1 (Lungs / Inhl)	NDA
Calcium monocarbonate	<b>CAS:</b> 471-34-1 <b>EC</b>	3% TO 6%	Ingestion/Oral-Rat LD50 • 6450 mg/kg	<b>EU CLP:</b> Skin Irrit. 2, H315; Eye Irrit. 2, H319 <b>UN GHS Revision 4:</b> Skin Irrit. 2; Eye	NDA

	Number:207-439-9			Irrit. 2 <b>OSHA HCS 2012:</b> Skin Irrit. 2; Eye Irrit. 2 <b>WHMIS 2015:</b> Skin Irrit. 2; Eye Irrit. 2	
Copper oxide	CAS:1317-38-0 EU Index:029-016-00-6 EINECS:215-269-1	1% TO 3%	Ingestion/Oral-Rat LD50 • 470 mg/kg	<b>EU CLP:</b> Annex VI, Table 3.1: Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100) <b>UN GHS Revision 4:</b> Acute Tox. 4 (Orl); Aquatic Acute 1 (M=10); Aquatic Chronic 1 (M=1) <b>OSHA HCS 2012:</b> Acute Tox. 4 (Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever <b>WHMIS 2015:</b> Acute Tox. 4 (Orl); Hazard Not Otherwise Classified - Health Hazard - Metal Fume Fever	NDA
Benzenesulfonic acid, dodecyl-, calcium salt	CAS:26264-06-2 EINECS:247-557-8	0.6% TO 3%	Ingestion/Oral-Rat LD50 • 1300 mg/kg	<b>EU CLP:</b> Acute Tox. 4, H302 <b>UN GHS Revision 4:</b> Acute Tox. 4 (orl); Aquatic Acute 2 <b>OSHA HCS 2012:</b> Acute Tox. 4 (orl) <b>WHMIS 2015:</b> Acute Tox. 4 (orl)	NDA
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	CAS:68584-23-6 EINECS:271-529-4	0.6% TO 3%	NDA	<b>EU CLP:</b> Not Classified <b>UN GHS Revision 4:</b> Not Classified <b>OSHA HCS 2012:</b> Not Classified <b>WHMIS 2015:</b> Not Classified	NDA

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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. Get medical attention if symptoms occur.
- 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** • Dry chemical, Carbon dioxide (CO 2), Foam, sand, Water fog.
- Unsuitable Extinguishing Media** • No data available

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

- Unusual Fire and Explosion Hazards** • No data available

- Hazardous Combustion Products** • Hazardous decomposition products formed under fire conditions: Carbon oxides, Sulphur oxides.

### 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. 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** • Store in original container. 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
Copper oxide	TWAs	1 mg/m <sup>3</sup> TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	Not established
Calcium monocarbonate (471-34-1)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA (containing no asbestos and <1% crystalline silica, inhalable dust)	10 mg/m <sup>3</sup> TWA	Not established
Talc (14807-96-6)	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)	2 mg/m <sup>3</sup> TWA [CMP] (respirable fraction, particulate matter containing no asbestos and less than 1% crystalline silica)	2.5 mg/m <sup>3</sup> TWA (containing no asbestos fibers)	2 mg/m <sup>3</sup> TWA (respirable particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)
Graphite	TWAs	2 mg/m <sup>3</sup> TWA (all forms except graphite fibres, respirable particulate matter)	2 mg/m <sup>3</sup> TWA [CMP] (all forms except fibres, respirable fraction)	3 mg/m <sup>3</sup> TWA (containing no asbestos and <1% crystalline silica; all forms except fibres;	2 mg/m <sup>3</sup> TWA (all forms except Graphite fibres, respirable)	2 mg/m <sup>3</sup> TWA (all forms except Graphite fibres, respirable)

				natural and synthetic, respirable dust)		
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
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
Calcium mon carbonate (471-34-1)	STELs	Not established	Not established	20 mg/m3 STEL (listed under Limestone)	Not established	20 mg/m3 STEL (listed under Limestone)
	TWAs	Not established	Not established	10 mg/m3 TWA (listed under Limestone)	Not established	10 mg/m3 TWA (listed under Limestone)
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matter)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	2 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matter)	2 mg/m3 TWA (respirable fraction)
Graphite	TWAs	2 mg/m3 TWA (all forms except Graphite fibers, respirable particulate matter)	2 mg/m3 TWA (all forms except graphite fibres)	2 mg/m3 TWA (natural, all forms, except Graphite fibres, respirable fraction)	2 mg/m3 TWA (all forms except Graphite fibers, respirable particulate matter)	2 mg/m3 TWA (natural, all forms, except Graphite fibres, respirable fraction)
	STELs	Not established	Not established	4 mg/m3 STEL (natural, all forms, except Graphite fibres, respirable fraction)	Not established	4 mg/m3 STEL (natural, all forms, except Graphite fibres, respirable fraction)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Calcium mon carbonate (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
Talc (14807-96-6)	STELs	Not established	Not established	Not established	Not established	6 mg/m3 STEL (free SiO2 <10%, total dust); 2 mg/m3 STEL (free SiO2 <10%, respirable dust)
	TWAs	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	3 mg/m3 TWA (free SiO2 <10%, total dust); 1 mg/m3 TWA (free SiO2 <10%, respirable dust)
Graphite	STELs	Not established	Not established	4 mg/m3 STEL (natural, except Graphite fibres, respirable fraction)	Not established	8 mg/m3 STEL (total dust); 4 mg/m3 STEL (respirable dust)
	TWAs	2 mg/m3 TWA (except Graphite fibres, respirable)	2 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, except Graphite fibres, respirable dust)	2 mg/m3 TWA (natural, except Graphite fibres, respirable fraction)	20 mppcf TWA; 30 mppcf TWA (synthetic); 10 mg/m3 TWA (synthetic)	4 mg/m3 TWA (total dust); 2 mg/m3 TWA (respirable dust)
Exposure Limits/Guidelines (Con't.)						
	Result	France	Germany DFG	Indonesia	Israel	Japan

Copper oxide	TWAs	Not established	Not established	Not established	1 mg/m <sup>3</sup> TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established
Calcium monocarbonate (471-34-1)	TWAs	10 mg/m <sup>3</sup> TWA [VME]	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	Not established	Not established	2 mg/m <sup>3</sup> TWA (not containing fiber Asbestos, use NAB asbestos for talc containing fiber asbestos, respirable particulate)	4 mg/m <sup>3</sup> TWA (airborne dust no otherwise classified); 2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% crystalline silica, respirable fraction)	0.5 mg/m <sup>3</sup> OEL (Class 1 Dust, respirable dust); 2 mg/m <sup>3</sup> OEL (Class 1 Dust, total dust)
Graphite (7782-42-5)	TWAs	2 mg/m <sup>3</sup> TWA [VME] (alveolar fraction)	Not established	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA (respirable fraction, all forms except graphite fibers)	2 mg/m <sup>3</sup> OEL (Class 1 Dust, total dust); 0.5 mg/m <sup>3</sup> OEL (Class 1 Dust, respirable dust)
	MAKs	Not established	1.5 mg/m <sup>3</sup> TWA MAK (respirable fraction); 4 mg/m <sup>3</sup> TWA MAK (inhalable fraction)	Not established	Not established	Not established

**Exposure Limits/Guidelines (Con't.)**

	Result	Malaysia	Mexico	Netherlands	NIOSH	OSHA
Copper oxide	TWAs	Not established	Not established	Not established	0.1 mg/m <sup>3</sup> TWA (fume, as Cu)	Not established
Calcium monocarbonate (471-34-1)	TWAs	Not established	Not established	Not established	10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust)	Not established
Talc (14807-96-6)	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction of particulate matter)	2 mg/m <sup>3</sup> TWA VLE-PPT (respirable fraction)	0.25 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Graphite	TWAs	2 mg/m <sup>3</sup> TWA (all forms except Graphite fibres, respirable fraction)	2 mg/m <sup>3</sup> TWA VLE-PPT (synthetic and natural)	Not established	2.5 mg/m <sup>3</sup> TWA (natural, respirable dust)	15 mg/m <sup>3</sup> TWA (synthetic, total dust); 5 mg/m <sup>3</sup> TWA (synthetic, respirable fraction)

**Exposure Limits/Guidelines (Con't.)**

	Result	OSHA Vacated	Portugal	Singapore	Thailand	United Kingdom
Calcium monocarbonate (471-34-1)	TWAs	Not established	10 mg/m <sup>3</sup> TWA [VLE-MP] (particulate matter containing no Asbestos and <1% Crystalline silica)	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m <sup>3</sup> TWA (<1% Crystalline silica, containing no Asbestos, respirable dust)	2 mg/m <sup>3</sup> TWA [VLE-MP] (respirable fraction, particulate matter containing no Asbestos and <1% Crystalline silica)	2 mg/m <sup>3</sup> PEL	2 mg/m <sup>3</sup> TWA (containing no asbestos fibres, respirable dust); 0.1 fiber/cm <sup>3</sup> TWA (containing asbestos fibres, respirable dust)	1 mg/m <sup>3</sup> TWA (respirable dust)
	STELs	Not established	Not established	Not established	Not established	3 mg/m <sup>3</sup> STEL (calculated, respirable dust)
Graphite (7782-42-5)	TWAs	2.5 mg/m <sup>3</sup> TWA (natural, respirable dust); 10 mg/m <sup>3</sup> TWA (synthetic, total dust); 5 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA [VLE-MP] (all forms except Graphite fibres, respirable fraction)	2 mg/m <sup>3</sup> PEL (respirable dust)	Not established	10 mg/m <sup>3</sup> TWA (inhalable dust); 4 mg/m <sup>3</sup> TWA (respirable dust)

		(synthetic, respirable fraction)				
	STELs	Not established	Not established	Not established	Not established	30 mg/m3 STEL (calculated, inhalable dust); 12 mg/m3 STEL (calculated, respirable dust)
Exposure Limits/Guidelines (Con't.)						
	Result	United States - California		Venezuela		
Calcium monocarbonate (471-34-1)	TWAs	5 mg/m3 PEL (respirable fraction, listed under Particulates not otherwise regulated); 10 mg/m3 PEL (total dust, listed under Particulates not otherwise regulated)		10 mg/m3 TWA [VTRE-L-8/40		
Talc (14807-96-6)	TWAs	2 mg/m3 PEL (respirable dust, containing no Asbestos fibers, <1% Crystalline silica)		2 mg/m3 TWA [VTRE-L-8/40 (respirable fraction; particulate containing no Asbestos and <1% Crystalline silica)		
Graphite	TWAs	2.5 mg/m3 PEL (natural, respirable dust); 10 mg/m3 PEL (synthetic total dust); 5 mg/m3 PEL (synthetic respirable fraction)		2 mg/m3 TWA [VTRE-L-8/40 (dust)		

## 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))

### Mexico

•Talc (14807-96-6): **Carcinogens:** (A4 - Not classifiable as a human carcinogen)

### Egypt

•Graphite (7782-42-5): **Nuisance Dusts:** (10 mg/m3 TWA (synthetic, containing <1% Quartz, total dust); 30 mppcf TWA (synthetic, containing <1% Quartz, total dust); 3 mg/m3 TWA (synthetic, containing <1% Quartz, total dust))

•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))

### Portugal

•Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

### Indonesia

•Talc (14807-96-6): **Carcinogens:** (A4 - not classifiable as a human carcinogen (not containing asbestos fiber))

### Argentina

•Talc (14807-96-6): **Carcinogens:** (A1 - Confirmed human carcinogen)

### Canada Manitoba

•Talc (14807-96-6): **Carcinogens:** (A4 Not Classifiable as a Human Carcinogen (containing no Asbestos fibers))

### Canada New Brunswick

•Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

### Canada Nova Scotia

•Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (containing no Asbestos fibers))

### Venezuela

•Talc (14807-96-6): **Ceilings:** (Present)

### ACGIH

•Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers))

### Germany DFG

•Graphite (7782-42-5): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to (inhalable fraction; respirable fraction))

•Talc (14807-96-6): **Carcinogens:** (Category 3B (could be carcinogenic for man; free of asbestos fibers))

## Exposure Limits Supplemental

### Thailand

•Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA)

•Graphite as Particulates not otherwise classified (PNO): **Mineral Dusts:** (15 mppcf TWA (respirable dust); 15 mg/m3 TWA (total dust); 50 mppcf TWA (total dust); 5 mg/m3 TWA (respirable dust))

•Talc (14807-96-6): **Mineral Dusts:** (20 mppcf TWA)

### OSHA

•Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA (natural))

•Graphite as Particulates not otherwise classified (PNO): **Mineral Dusts:** (15 mppcf TWA (respirable fraction); 5 mg/m3 TWA (respirable fraction); 50 mppcf TWA (total dust); 15 mg/m3 TWA (total dust))

•Talc (14807-96-6): **Mineral Dusts:** (20 mppcf TWA (if 1% Quartz or more; use Quartz limit))

### ACGIH

•Graphite (7782-42-5): **TLV Basis - Critical Effects:** (pneumoconiosis (all forms except graphite fibers))

•Talc (14807-96-6): **TLV Basis - Critical Effects:** (pulmonary fibrosis (containing no asbestos fibers); pulmonary function (containing no asbestos fibers))

•Copper oxide 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**

- Natural Rubber, latex gloves. Break through time: 4-8 Hours. 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	Black semi-solid paste with mild petroleum odor.
Color	Black	Odor	Mild, petroleum.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	260 °C(500 °F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Insoluble
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	> 171 °C(> 339.8 °F)	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 oxidising agents.

## 10.6 Hazardous decomposition products

- Hazardous decomposition products formed under fire conditions: Carbon oxides, Sulphur oxides.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

Components		
Talc (10% TO 20%)	14807-96-6	<b>Irritation:</b> Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; <b>Tumorigen / Carcinogen:</b> Inhalation-Rat • 11 mg/m <sup>3</sup> 1 Year(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</i> ; Inhalation-Rat TCLo • 18 mg/m <sup>3</sup> 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Bronchiogenic carcinoma; Endocrine:Tumors</i>
Copper oxide (1% TO 3%)	1317-38-0	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 470 mg/kg
Calcium monocarbonate (3% TO 6%)	471-34-1	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 6450 mg/kg; <b>Irritation:</b> Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; <b>Multi-dose Toxicity:</b> Ingestion/Oral-Woman TDLo • 4.08 g/kg 30 Day(s)-Intermittent; <i>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</i>
Benzenesulfonic acid, dodecyl-, calcium salt (0.6% TO 3%)	26264-06-2	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 1300 mg/kg

GHS Properties	Classification
Acute toxicity	EU/CLP•Data lacking UN GHS 4•Acute Toxicity - Oral 5 - ATEmix (oral) = 4027 mg/kg 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•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking
STOT-SE	EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking
STOT-RE	EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking

## Potential Health Effects

### Inhalation

**Acute (Immediate)** • Under normal conditions of use, no health effects are expected.

**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)** • May be harmful if swallowed.

**Chronic (Delayed)** • No data available

## 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

TC = Toxic Concentration

TD = Toxic Dose

## Section 12 - Ecological Information

### 12.1 Toxicity

Components		
Copper oxide (1% TO 3%)	1317-38-0	<b>Aquatic Toxicity-Fish:</b> 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 <b>Aquatic Toxicity-Crustacea:</b> 48 Hour(s) EC50 <i>Daphnia magna (Water Flea)</i> 92.7 mg/L <b>Aquatic Toxicity-Algae and Other Aquatic Plant(s):</b> 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

- 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	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	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

SARA Hazard Classifications

- Acute

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 monocarbonate	471-34-1	No
Copper oxide	1317-38-0	No
Graphite	7782-42-5	Yes
Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	No
Talc	14807-96-6	Yes

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 oxide	1317-38-0	Yes	Yes	No	Yes	Yes
Graphite	7782-42-5	Yes	Yes	No	Yes	Yes
Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Yes	Yes	No	Yes	Yes
Talc	14807-96-6	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 oxide	1317-38-0	No	Yes	Yes
Graphite	7782-42-5	No	No	Yes
Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	No	No	Yes
Talc	14807-96-6	No	Yes	Yes

## United States - California

### Environment

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

•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed
•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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

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

•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed

•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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
<b>U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)</b>		
•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed
•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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
<b>U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)</b>		
•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed
•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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
<b>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</b>		
•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed
•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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
<b>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</b>		
•Copper oxide	1317-38-0	Not Listed
•Solvent-refined heavy paraffinic petroleum distillates	64741-88-4	Not Listed
•Talc	14807-96-6	Not Listed
•Calcium monocarbonate	471-34-1	Not Listed
•Graphite	7782-42-5	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

## 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.
- H372 - Causes damage to organs through prolonged or repeated exposure.

#### Revision Date

- 06/March/2018

#### Last Revision Date

- 06/March/2018

#### Preparation Date

- 21/May/2013

#### 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