

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

1.1 Product identifier

Product Name

• RJC®

Synonyms

• RJC Special; Thread Compound

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

Relevant identified use(s)

• Anti-Seize, Lubricant, Sealant, Tool Joint/Drill Collar Compound

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

• Skin Irritation 2 - H315
Hazardous to the aquatic environment Chronic 2 - H411

2.2 Label Elements

CLP

WARNING



Hazard statements • H315 - Causes skin irritation
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention • P264 - Wash thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves.

- Response** • P302+P352 - IF ON SKIN: Wash with plenty of water.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P321 - Specific treatment, see supplemental first aid information.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
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** • 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** • Skin Irritation 2
Hazardous to the aquatic environment Acute 2
Hazardous to the aquatic environment Chronic 2

2.2 Label elements

UN GHS

WARNING



- Hazard statements** • Causes skin irritation
Toxic to aquatic life
Toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Avoid release to the environment.
Wear protective gloves.
- Response** • IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation occurs: Get medical advice/attention.
Collect spillage.

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

2.3 Other hazards

- UN GHS** • 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** • Skin Irritation 2

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes skin irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Wear protective gloves.
- Response** • If on skin: Wash with plenty of water.
Take off contaminated clothing and wash before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

OSHA HCS 2012

- 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 • Skin Irritation 2

2.2 Label elements

WHMIS 2015

WARNING



Hazard statements • Causes skin irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Wear protective gloves.
- Response** • IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation occurs: Get medical advice/attention.

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
Crystalline silica	CAS: 14808-60-7 EC Number: 238-878-4	0% TO 68.7505%	NDA	EU CLP: Carc. 1A, H350i; STOT RE 1, H372 UN GHS Revision 4: Carc. 1A; STOT RE 1 (Lungs / Inhl) OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs / Inhl) WHMIS 2015: Carc. 1A; STOT RE 1 (Lungs / Inhl)	NDA
Asphalt	CAS: 8052-42-4	0% TO 68.7505%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m ³	EU CLP: Carc. 2, H351 UN GHS Revision 4: Carc. 2 OSHA HCS 2012: Carc. 2 WHMIS 2015: Carc. 2	NDA
Catalytic cracked clarified oil	CAS: 64742-62-7 EC Number: 265-166-0 EU Index: 649-471-00-X	15% TO 49%	NDA	EU CLP: Annex VI, Table 3.1: Carc. 1B, H350 UN GHS Revision 4: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	CAS: 64742-65-0 EC Number: 265-169-7 EU Index: 649-474-00-6	12% TO 35%	Skin-Rabbit LD50 • >5000 mg/kg Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >5 mg/L 4 Hour(s)	EU CLP: Annex VI, Table 3.1: Carc. 1B, H350 UN GHS Revision 4: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	this component contains less than 3% DMSO
Graphite	CAS: 7782-42-5 EC Number: 231-955-3	10% TO 20%	NDA	EU CLP: STOT RE 1 (Lungs / Inhl), H372 UN GHS Revision 4: STOT RE 1 (Lungs / Inhl) OSHA HCS 2012: Comb. Dust; STOT RE 1 (Lungs / Inhl) WHMIS 2015: Comb. Dust; STOT RE 1 (Lungs / Inhl)	NDA
Talc	CAS: 14807-96-6 EC Number: 238-877-9	5% TO 15%	NDA	EU CLP: STOT RE 1 (Lungs / Inhl), H372 UN GHS Revision 4: Skin Irrit. 3; STOT RE 1 (Lungs / Inhl) OSHA HCS 2012: STOT RE 1 (Lungs / Inhl) WHMIS 2015: STOT RE 1 (Lungs / Inhl)	NDA
Hydrotreated heavy naphthenic petroleum distillate (highly refined)	CAS: 64742-52-5 EC Number: 265-155-0 EU Index: 649-465-00-7	0% TO 14%	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. 2 OSHA HCS 2012: Skin Irrit. 2 WHMIS 2015: Skin Irrit. 2	NDA
Thickener	CAS: 54326-11-3 EINECS: 259-105-7	3.6% TO 8.4%	NDA	EU CLP: Not Classified UN GHS Revision 4: Not Classified OSHA HCS 2012: Not	NDA

				Classified WHMIS 2015: Not Classified	
Copper oxide	CAS: 1317-38-0 EINECS: 215-269-1	1% TO 5%	Ingestion/Oral-Rat LD50 • 470 mg/kg	EU CLP: Annex VI, Table 3.1: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 UN GHS Revision 4: Acute Tox. 4 (Orl); Aquatic Acute 1; Aquatic Chronic 1 OSHA HCS 2012: Acute Tox. 4 (Orl) WHMIS 2015: Acute Tox. 4 (Orl)	NDA
Antimony, tris(dipentylcarbamo-dithioato-kappa-S,kappa-S)-, (OC-6-11)-	CAS: 15890-25-2 EINECS: 240-028-2	1.2% TO 2.8%	NDA	EU CLP: Not Classified UN GHS Revision 4: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	CAS: 68457-79-4 EINECS: 270-608-0	1.071% TO 1.2495%	NDA	EU CLP: Not Classified UN GHS Revision 4: Acute Tox. 5 (orl) OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA
Naphthenic acid, zinc salt	CAS: 12001-85-3 EINECS: 234-409-2	0.3% TO 1.05%	NDA	EU CLP: Eye Irrit. 2, H319; Aquatic Chronic 3, H412 UN GHS Revision 4: Acute Tox. 5 (orl); Skin Irrit. 3; Eye Irrit. 2; Aquatic Acute 3; Aquatic Chronic 3 OSHA HCS 2012: Eye Irrit. 2 WHMIS 2015: Eye Irrit. 2	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.
- Skin** • Wash skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Eye** • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion** • Rinse mouth. Give plenty of water to drink. 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 • Hazardous decomposition products formed under fire conditions: Carbon 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 • Stop leak if you can do it without risk.
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. Keep away from heat and ignition sources. 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 • Keep only in the 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
Asphalt (8052-42-4)	TWAs	0.5 mg/m ³ TWA (fume, inhalable particulate matter, as benzene-soluble aerosol)	0.5 mg/m ³ TWA [CMP] (Bitumen, inhalable fraction, as soluble aerosol in benzene)	5 mg/m ³ TWA (fume)	5 mg/m ³ TWA (Petroleum; Bitumen, fume)	0.5 mg/m ³ TWA (inhalable fume, as Benzene-soluble aerosol)
Crystalline silica (14808-60-7)	TWAs	0.025 mg/m ³ TWA (respirable particulate matter)	0.05 mg/m ³ TWA [CMP] (respirable fraction)	0.1 mg/m ³ TWA (respirable dust)	0.025 mg/m ³ TWA (respirable particulate)	0.025 mg/m ³ TWA (respirable)

Copper oxide	TWAs	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>	Not established	Not established	Not established	Not established
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 [CMP] (respirable fraction, particulate matter containing no asbestos and less than 1% crystalline silica)	2.5 mg/m3 TWA (containing no asbestos fibers)	2 mg/m3 TWA (respirable particulate)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)
Graphite	TWAs	2 mg/m3 TWA (all forms except graphite fibers, respirable particulate matter)	2 mg/m3 TWA [CMP] (all forms except fibers, respirable fraction)	3 mg/m3 TWA (containing no asbestos and <1% crystalline silica; all forms except fibres; natural and synthetic, respirable dust)	2 mg/m3 TWA (all forms except Graphite fibres, respirable)	2 mg/m3 TWA (all forms except Graphite fibres, respirable)
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable particulate matter, as Benzene soluble aerosol)	5 mg/m3 TWA (petroleum fumes)	0.5 mg/m3 TWA (Bitumen, fume, as Benzene soluble aerosol (inhalable fraction))	0.5 mg/m3 TWA (fume, inhalable particulate matter, as Benzene soluble aerosol)	0.5 mg/m3 TWA (Bitumen, fume, as Benzene soluble aerosol (inhalable fraction))
	STELs	Not established	Not established	1.5 mg/m3 STEL (Bitumen, fume, as Benzene soluble aerosol (inhalable fraction))	Not established	1.5 mg/m3 STEL (Bitumen, fume, as Benzene soluble aerosol (inhalable fraction))
Crystalline silica (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable particulate matter)	0.1 mg/m3 TWA (respirable fraction)	0.05 mg/m3 TWA (respirable fraction, listed under Silica - crystalline)	0.025 mg/m3 TWA (respirable particulate matter)	0.05 mg/m3 TWA (respirable fraction, listed under Silica - crystalline)
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
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 fibres, 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 fibres, 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
Asphalt (8052-42-4)	STELs	Not established	Not established	1.5 mg/m3 STEL (fume and inhalable fraction, as Benzene soluble aerosol)	10 mg/m3 STEL (fume)	12.5 mg/m3 STEL (fume, as Benzene soluble matter)

	TWAs	0.5 mg/m3 TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m3 TWAEV (fume)	0.5 mg/m3 TWA (fume and inhalable fraction, as Benzene soluble aerosol)	5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume, as Benzene soluble matter)
Crystalline silica (14808-60-7)	STELs	Not established	Not established	Not established	Not established	2 mg/m3 STEL (containing 10 - 50% free SiO ₂ , total dust); 1.4 mg/m3 STEL (containing 50 - 80% free SiO ₂ , total dust); 1 mg/m3 STEL (containing >80% free SiO ₂ , total dust); 1.4 mg/m3 STEL (containing 10 - 50% free SiO ₂ , respirable dust); 0.6 mg/m3 STEL (containing 50 - 80% free SiO ₂ , respirable dust); 0.4 mg/m3 STEL (containing >80% free SiO ₂ , respirable dust)
	TWAs	0.10 mg/m3 TWA (designated substances regulation, respirable, listed under Silica, crystalline)	0.1 mg/m3 TWAEV (respirable dust)	0.05 mg/m3 TWA (respirable fraction, listed under Silica - crystalline (Trydimite removed))	300 particle/mL TWA (listed under Silica - Quartz, crystalline)	0.7 mg/m3 TWA (containing 50 - 80% free SiO ₂ , total dust); 0.3 mg/m3 TWA (containing 50 - 80% free SiO ₂ , respirable dust); 1 mg/m3 TWA (containing 10 - 50% free SiO ₂ , total dust); 0.7 mg/m3 TWA (containing 10 - 50% free SiO ₂ , respirable dust); 0.5 mg/m3 TWA (containing >80% free SiO ₂ , total dust); 0.2 mg/m3 TWA (containing >80% free SiO ₂ , respirable dust)
Talc (14807-96-6)	STELs	Not established	Not established	Not established	Not established	6 mg/m3 STEL (free SiO ₂ <10%, total dust); 2 mg/m3 STEL (free SiO ₂ <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 SiO ₂ <10%, total dust); 1 mg/m3 TWA (free SiO ₂ <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	India	Indonesia	Israel
Asphalt (8052-42-4)	TWAs	Not established	Not established	Not established	0.5 mg/m3 TWA (soluble aerosol, fume)	0.5 mg/m3 TWA (fume, inhalable)

						fraction, as benzene soluble aerosol)
Crystalline silica (14808-60-7)	TWAs	0.1 mg/m3 TWA [VME] (restrictive limit, alveolar fraction)	Not established	(10600)/(%Quartz + 10) mppcm TWA, dust count; (10)/(%Quartz + 2) mg/m3 TWA, respirable dust; (30)/(%Quartz + 3) mg/m3 TWA, total dust	0.1 mg/m3 TWA (respirable particulate)	0.025 mg/m3 TWA (respirable fraction)
Copper oxide	TWAs	Not established	Not established	Not established	Not established	1 mg/m3 TWA (dust and mist, as Cu) <i>as Copper compounds</i>
Talc (14807-96-6)	TWAs	Not established	Not established	Not established	2 mg/m3 TWA (not containing fiber Asbestos, use NAB asbestos for talc containing fiber asbestos, respirable particulate)	4 mg/m3 TWA (airborne dust no otherwise classified); 2 mg/m3 TWA (particulate matter containing no Asbestos and <1% crystalline silica, respirable fraction)
Graphite (7782-42-5)	TWAs	2 mg/m3 TWA [VME] (alveolar fraction)	Not established	Not established	2 mg/m3 TWA	2 mg/m3 TWA (respirable fraction, all forms except graphite fibers)
	MAKs	Not established	1.5 mg/m3 TWA MAK (respirable fraction); 4 mg/m3 TWA MAK (inhalable fraction)	Not established	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Japan	Mexico	Netherlands	NIOSH	OSHA
Asphalt (8052-42-4)	STELs	Not established	10 mg/m3 STEL [PPT-CT]	Not established	Not established	Not established
	TWAs	Not established	5 mg/m3 TWA VLE-PPT	Not established	Not established	Not established
	Ceilings	Not established	Not established	Not established	5 mg/m3 Ceiling (fume, 15 min)	Not established
Crystalline silica (14808-60-7)	TWAs	Not established	0.1 mg/m3 TWA VLE-PPT (respirable fraction)	0.075 mg/m3 TWA (respirable dust, listed under Silicium dioxide)	0.05 mg/m3 TWA (respirable dust)	50 µg/m3 TWA
Copper oxide	TWAs	Not established	Not established	Not established	0.1 mg/m3 TWA (fume, as Cu)	Not established
Talc (14807-96-6)	TWAs	0.5 mg/m3 OEL (Class 1 Dust, respirable dust); 2 mg/m3 OEL (Class 1 Dust, total dust)	2 mg/m3 TWA VLE-PPT (respirable fraction)	0.25 mg/m3 TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Graphite	TWAs	2 mg/m3 OEL (Class 1 Dust, total dust); 0.5 mg/m3 OEL (Class 1 Dust, respirable dust)	2 mg/m3 TWA VLE-PPT (synthetic and natural)	Not established	2.5 mg/m3 TWA (natural, respirable dust)	15 mg/m3 TWA (synthetic, total dust); 5 mg/m3 TWA (synthetic, respirable fraction)

Exposure Limits/Guidelines (Con't.)

	Result	OSHA Vacated	Portugal	Russia	Singapore	United Kingdom
Asphalt (8052-42-4)	TWAs	Not established	0.5 mg/m3 TWA [VLE-MP] (fumes, inhalable fraction, as Benzene soluble aerosol)	Not established	5 mg/m3 PEL (fume)	5 mg/m3 TWA (fumes)

	STELs	Not established	Not established	Not established	Not established	10 mg/m3 STEL (fumes)
Crystalline silica (14808-60-7)	TWAs	0.1 mg/m3 TWA (respirable dust)	0.025 mg/m3 TWA [VLE-MP] (respirable fraction)	1 mg/m3 TWA (glass, disintegration aerosol, total mass of aerosols, listed under Silicon dioxide amorphous and vitreous); 1 mg/m3 TWA (total mass of aerosols, listed under Crystalline silicon dioxide)	0.1 mg/m3 PEL (respirable dust)	Not established
	STELs	Not established	Not established	3 mg/m3 STEL (glass, disintegration aerosol, total mass of aerosols, listed under Silicon dioxide amorphous and vitreous); 3 mg/m3 STEL (regulated under Quartz, total mass of aerosols, listed under Silicon dioxide crystalline)	Not established	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (<1% Crystalline silica, containing no Asbestos, respirable dust)	2 mg/m3 TWA [VLE-MP] (respirable fraction, particulate matter containing no Asbestos and <1% Crystalline silica)	Not established	2 mg/m3 PEL	1 mg/m3 TWA (respirable dust)
	STELs	Not established	Not established	Not established	Not established	3 mg/m3 STEL (calculated, respirable dust)
Graphite (7782-42-5)	TWAs	2.5 mg/m3 TWA (natural, respirable dust); 10 mg/m3 TWA (synthetic, total dust); 5 mg/m3 TWA (synthetic, respirable fraction)	2 mg/m3 TWA [VLE-MP] (all forms except Graphite fibers, respirable fraction)	Not established	2 mg/m3 PEL (respirable dust)	10 mg/m3 TWA (inhalable dust); 4 mg/m3 TWA (respirable dust)
	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	Venezuela
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA [VTRE-L-8/40 (fume, as Benzene soluble aerosols)
Crystalline silica (14808-60-7)	TWAs	0.025 mg/m3 TWA [VTRE-L-8/40 (respirable fraction)
Talc (14807-96-6)	TWAs	2 mg/m3 TWA [VTRE-L-8/40 (respirable fraction; particulate containing no Asbestos and <1% Crystalline silica)
Graphite	TWAs	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)
- Asphalt (8052-42-4): **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))

Portugal

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

- Crystalline silica (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fumes))

Indonesia

- Talc (14807-96-6): **Carcinogens:** (A4 - not classifiable as a human carcinogen (not containing asbestos fiber))
- Asphalt (8052-42-4): **Carcinogens:** (A4 - not classifiable as a human carcinogen)

Argentina

- Talc (14807-96-6): **Carcinogens:** (A1 - Confirmed human carcinogen)
- Crystalline silica (14808-60-7): **Carcinogens:** (A2 - Suspected human carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not classifiable as a human carcinogen (fumes))

Canada British Columbia

- Crystalline silica (14808-60-7): **Carcinogens:** (ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen) | **Designated Substances:** (ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (IARC Category 2A - Probable Human Carcinogen (fume; occupational exposure to oxidized Bitumens and their emissions during road paving); IARC Category 2B - Possible Human Carcinogen (fume; occupational exposure to straight-run Bitumens and their emissions during road paving)) | **Designated Substances:** (IARC Category 2B - Possible Human Carcinogen (fume; occupational exposure to straight-run Bitumens and their emissions during road paving); IARC Category 2A - Probable Human Carcinogen (fume; occupational exposure to oxidized Bitumens and their emissions during road paving))

Canada Manitoba

- Talc (14807-96-6): **Carcinogens:** (A4 Not Classifiable as a Human Carcinogen (containing no Asbestos fibers))
- Crystalline silica (14808-60-7): **Carcinogens:** (A2 Suspected Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 Not Classifiable as a Human Carcinogen (fume, Coal tar-free))

Canada New Brunswick

- Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fumes))

Canada Nova Scotia

- Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (containing no Asbestos fibers))
- Crystalline silica (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, Coal tar-free))

Canada Ontario

- Crystalline silica (14808-60-7): **Designated Substances:** (0.10 mg/m³ TWA (respirable fraction, listed under Silica, crystalline))

Canada Quebec

- Crystalline silica (14808-60-7): **Carcinogens:** (C2 carcinogen - effect suspected in humans)

Venezuela

- Talc (14807-96-6): **Ceilings:** (Present)
- Crystalline silica (14808-60-7): **Ceilings:** (Present)
- Asphalt (8052-42-4): **Ceilings:** (Present)

ACGIH

- Talc (14807-96-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers))
- Crystalline silica (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)
- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free))

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))
- Crystalline silica (14808-60-7): **Carcinogens:** (Category 1 (causes cancer in man; alveola fraction))
- Asphalt (8052-42-4): **Carcinogens:** (Category 2 (considered to be carcinogenic for man; aerosol and vapor)) | **Skin:** (skin notation (aerosol and vapour))

Exposure Limits Supplemental

Thailand

- Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA)
- Graphite as Particulates not otherwise classified (PNOC): **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)
- Crystalline silica (14808-60-7): **Mineral Dusts:** (TWA ((250/(%SiO₂ + 5)), mppcf, respirable dust); TWA ((10/(%SiO₂ + 2)), mg/m³, respirable dust); TWA ((30/(%SiO₂ + 2)), mg/m³, total dust))

Israel

- Asphalt (8052-42-4): **Biological Markers of Occupational Exposure:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative))

OSHA

- Graphite (7782-42-5): **Mineral Dusts:** (15 mppcf TWA (natural))
- Graphite as Particulates not otherwise classified (PNOC): **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))
- Crystalline silica (14808-60-7): **Mineral Dusts:** ((250)/(%SiO₂ + 5) mppcf TWA, respirable fraction; (10)/(%SiO₂ + 2) mg/m³ TWA, respirable fraction)

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))
- Crystalline silica (14808-60-7): **TLV Basis - Critical Effects:** (lung cancer; pulmonary fibrosis)
- Asphalt (8052-42-4): **BEIs:** (Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)) | **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation (fume))

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	PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)
BEI = Biological Exposure Indices	STEL = Short Term Exposure Limits are based on 15-minute exposures
MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration	TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures
NIOSH = National Institute of Occupational Safety and Health	TWAEV = Time-Weighted Average Exposure Value
OSHA = Occupational Safety and Health Administration	

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	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

- None in particular.

10.6 Hazardous decomposition products

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

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Talc (5% TO 15%)	14807-96-6	Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; Tumorigen / Carcinogen: Inhalation-Rat • 11 mg/m ³ 1 Year(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</i> ; Inhalation-Rat TClO • 18 mg/m ³ 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 5%)	1317-38-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 470 mg/kg; Multi-dose Toxicity: Ingestion/Oral-Woman TDLo • 0.7 mg/kg 7 Day(s)-Continuous; <i>Gastrointestinal:Hypermotility, diarrhea; Gastrointestinal:Nausea or vomiting; Gastrointestinal:Other changes</i>
Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment) (12% TO 35%)	64742-65-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Tumorigen / Carcinogen: Skin-Mouse • 389 g/kg 78 Week(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Skin and Appendages:Other:Tumors; Tumorigenic:Tumors at site of application</i>
Hydrotreated heavy naphthenic petroleum distillate (highly refined) (0% TO 14%)	64742-52-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; Skin-Rabbit LD50 • >2000 mg/kg; Irritation: Skin-Rabbit • 500 mg • Severe irritation; Tumorigen / Carcinogen: Skin-Mouse • 402 g/kg 78 Week(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Skin and Appendages:Other:Tumors; Tumorigenic:Tumors at site of application</i>
Antimony, tris(dipentylcarbomodithioato-kappa-S,kappa-S)-, (OC-6-11)- (1.2% TO 2.8%)	15890-25-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • >16400 mg/kg; <i>Behavioral:Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea</i> ; Skin-Rabbit LD50 • >16000 mg/kg
Naphthenic acid, zinc salt (0.3% TO 1.05%)	12001-85-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 4920 mg/kg; Inhalation-Rat LCLo • >1170 mg/m ³ 8 Hour(s); Skin-Rabbit LDLo • >2 g/kg
Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate (1.071% TO 1.2495%)	68457-79-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 3.6 g/kg; <i>Behavioral:Somnolence (general depressed activity); Lungs, Thorax, or Respiration:Other changes; Gastrointestinal:Hypermotility, diarrhea</i>
Crystalline silica (0% TO 68.7505%)	14808-60-7	Acute Toxicity: Inhalation-Rat TClO • 200 mg/kg; <i>Lungs, Thorax, or Respiration:Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration:Other changes; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Fe; Multi-dose Toxicity: Inhalation-Hamster TClO • 3 mg/m³ 6 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Fibrosis (interstitial); Lungs, Thorax, or Respiration:Changes in lung weight</i>; Inhalation-Rat TClO • 6.2 mg/m³ 6 Hour(s) 6 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Other changes; Blood:Changes in spleen; Immunological Including Allergic:Increase in cellular immune response</i>; Inhalation-Rat TClO • 80 mg/m³ 26 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Fibrosis, focal (pneumoconiosis); Blood:Changes in spleen; Immunological Including Allergic:Decrease in cellular immune response; Mutagen: Micronucleus test • Unreported Route-Hamster • Lung (Somatic cell) • 160</i></i>

		<p>µg/cm³; DNA damage • Unreported Route-Human • Other Cell Type • 120 mg/L 24 Hour(s); Micronucleus test • Unreported Route-Human • Lung (Somatic cell) • 40 µg/cm³;</p> <p>Tumorigen / Carcinogen: Inhalation-Rat TCLo • 50 mg/m³ 6 Hour(s) 71 Week(s)-Intermittent; <i>Tumorigenic:</i>Carcinogenic by RTECS criteria; Liver:Tumors</p>
Asphalt (0% TO 68.7505%)	8052-42-4	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • >5000 mg/kg; <i>Gastrointestinal:Hypermotility, diarrhea;</i> Inhalation-Rat LC50 • >94.4 mg/m³;</p> <p>Multi-dose Toxicity: Inhalation-Rat TCLo • 100 mg/m³ 14 Week(s)-Intermittent; <i>Kidney, Ureter, and Bladder:Other changes; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Multiple enzyme effects;</i> Inhalation-Human TDLo • 10 mg/m³ 5.5 Year(s)-Intermittent; <i>Sense Organs and Special Senses:Eye:Conjunctive irritation; Lungs, Thorax, or Respiration:Cough; Gastrointestinal:Changes in structure or function of salivary glands;</i></p> <p>Mutagen: DNA adduct • Skin-Mouse • 600 mg/kg;</p> <p>Tumorigen / Carcinogen: Skin-Mouse TDLo • 130 g/kg 81 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Skin and Appendages:Other:Tumors</i></p>

GHS Properties	Classification
Acute toxicity	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Skin corrosion/Irritation	<p>EU/CLP•Skin Irritation 2 UN GHS 4•Skin Irritation 2 OSHA HCS 2012•Skin Irritation 2 WHMIS 2015•Skin Irritation 2</p>
Serious eye damage/Irritation	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Skin sensitization	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Respiratory sensitization	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Aspiration Hazard	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Carcinogenicity	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Germ Cell Mutagenicity	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>
Toxicity for Reproduction	<p>EU/CLP•Data lacking UN GHS 4•Data lacking OSHA HCS 2012•Data lacking WHMIS 2015•Data lacking</p>

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 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) • Under normal conditions of use, no health effects are expected.

Chronic (Delayed) • No data available

Carcinogenic Effects • This material contains a component that may cause cancer, however based on regulatory criteria this material is not classified as a carcinogen.

Carcinogenic Effects			
	CAS	IARC	NTP
Asphalt	8052-42-4	Group 2B-Possible Carcinogen	Not Listed
Crystalline silica	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

	CAS	
RJC®	NDA	Aquatic Toxicity-Fish: 4 Day(s) LC50 <i>Western mosquitofish</i> >56000 mg/L Comments: Copper oxide (1317-38-0) 20 Day(s) NOEC <i>Common carp</i> 0.0128 mg/L Comments: Copper oxide (1317-38-0) 4 Day(s) LC50 <i>Bluegill</i> 92 mg/L Comments: Naphthenic acid, zinc salt (12001-85-3) Aquatic Toxicity-Crustacea: 2 Day(s) EC50 <i>Water flea</i> 92.7 mg/L Comments: Copper oxide (1317-38-0)

• Toxic to aquatic life. 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
Antimony, tris(dipentylcarbamodithioato-kappa-S,kappa-S)-, (OC-6-11)-	15890-25-2	No
Asphalt	8052-42-4	Yes
Catalytic cracked clarified oil	64742-62-7	No
Copper oxide	1317-38-0	No
Crystalline silica	14808-60-7	Yes
Graphite	7782-42-5	Yes
Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	No
Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	No
Naphthenic acid, zinc salt	12001-85-3	No
Talc	14807-96-6	Yes

Thickener	54326-11-3	No
Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	No

Inventory						
Component	CAS	Australia AICS	Canada DSL	Canada NDSL	China	EU EINECS
Antimony, tris(dipentylcarbamodithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Yes	Yes	No	Yes	Yes
Asphalt	8052-42-4	Yes	Yes	No	Yes	Yes
Catalytic cracked clarified oil	64742-62-7	Yes	Yes	No	Yes	Yes
Copper oxide	1317-38-0	Yes	Yes	No	Yes	Yes
Crystalline silica	14808-60-7	Yes	Yes	No	Yes	Yes
Graphite	7782-42-5	Yes	Yes	No	Yes	Yes
Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Yes	Yes	No	Yes	Yes
Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Yes	Yes	No	Yes	Yes
Naphthenic acid, zinc salt	12001-85-3	Yes	Yes	No	Yes	Yes
Talc	14807-96-6	Yes	Yes	No	Yes	Yes
Thickener	54326-11-3	Yes	Yes	No	Yes	Yes
Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Yes	Yes	No	Yes	Yes

Inventory (Con't.)				
Component	CAS	EU ELNICS	Japan ENCS	TSCA
Antimony, tris(dipentylcarbamodithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	No	Yes	Yes
Asphalt	8052-42-4	No	No	Yes
Catalytic cracked clarified oil	64742-62-7	No	No	Yes
Copper oxide	1317-38-0	No	Yes	Yes
Crystalline silica	14808-60-7	No	Yes	Yes
Graphite	7782-42-5	No	No	Yes
Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	No	No	Yes
Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	No	No	Yes
Naphthenic acid, zinc salt	12001-85-3	No	Yes	Yes
Talc	14807-96-6	No	Yes	Yes
Thickener	54326-11-3	No	Yes	Yes
Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	No	Yes	Yes

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

•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed
•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbamdithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Not Listed

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

•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed
•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbamdithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Not Listed

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

•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed
•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbamdithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Not Listed

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

•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed
•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbamdithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Not Listed

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

•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed

•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbomodithioato-kappa-S,kappa-S')-, (OC-6-11)- U.S. - California - Proposition 65 - Reproductive Toxicity - Male	15890-25-2	Not Listed
•Thickener	54326-11-3	Not Listed
•Copper oxide	1317-38-0	Not Listed
•Naphthenic acid, zinc salt	12001-85-3	Not Listed
•Hydrotreated heavy naphthenic petroleum distillate (highly refined)	64742-52-5	Not Listed
•Talc	14807-96-6	Not Listed
•Asphalt	8052-42-4	Not Listed
•Catalytic cracked clarified oil	64742-62-7	Not Listed
•Zinc O,O-bis(mixed iso-butyl and pentyl) phosphorodithioate	68457-79-4	Not Listed
•Crystalline silica	14808-60-7	Not Listed
•Graphite	7782-42-5	Not Listed
•Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic (mild or nosolvent-refining or hydrotreatment)	64742-65-0	Not Listed
•Antimony, tris(dipentylcarbomodithioato-kappa-S,kappa-S')-, (OC-6-11)-	15890-25-2	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H319 - Causes serious eye irritation
- H350 - May cause cancer.
- H350i - May cause cancer by inhalation.
- H351 - Suspected of causing cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H412 - Harmful to aquatic life with long lasting effects

Revision Date

- 24/April/2017

Last Revision Date

- 24/April/2017

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