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#### **SECTION 1. IDENTIFICATION**

Product name : SUPR COPR

SDS-Identcode : 070G

Manufacturer or supplier's details

Company name of supplier : Bestolife Corporation

Address : 2777 N. Stemmons Frwy Ste 1800

Dallas TX 75207,

Telephone : 855-243-9164/972-865-8961

Telefax : 214-631-3047

Emergency telephone : CHEMTREC U.S.: 800-424-9300, International 703-527-3887

(24-hours/7 days)

E-mail address : www.bestolife.com

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use

Thread Compound (Pipe Dope) and Jacking grease for use in

Offshore industries

Mining, (without offshore industries)

Restrictions on use : Do not use on oxygen lines or in oxygen enriched atmos-

pheres.

## **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with 29 CFR 1910.1200

Eye irritation : Category 2A

**GHS label elements** 

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.

Precautionary Statements : Prevention:

P264 Wash skin thoroughly after handling.





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P280 Wear eye protection/ face protection.

#### Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ atten-

tion.

## Other hazards

None known.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

## Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy	64742-52-5	>= 30 -< 50
naphthenic		
Distillates (petroleum), hydrotreated heavy	64742-54-7	>= 20 -< 30
paraffinic		
Talc	14807-96-6	>= 10 -< 20
Copper metal powder	7440-50-8	>= 10 -< 20
Dolomite	16389-88-1	>= 1 -< 5
Calcium oxide	1305-78-8	>= 3 -< 5
Graphite	7782-42-5	>= 1 -< 5
Tris[bis(2-ethylhexyl)dithiocarbamato-S,S']	15991-76-1	>= 1 -< 5
antimony		
Quartz	14808-60-7	>= 0.1 -< 1

#### **SECTION 4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical

advice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled : If inhaled, remove to fresh air.

Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention.





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If swallowed If swallowed, DO NOT induce vomiting.

Get medical attention if symptoms occur.

Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and

delayed

Causes serious eye irritation.

Protection of first-aiders First Aid responders should pay attention to self-protection,

and use the recommended personal protective equipment

when the potential for exposure exists.

Notes to physician Treat symptomatically and supportively.

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

Specific hazards during fire

fighting

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod-

ucts

Carbon oxides

Metal oxides

Nitrogen oxides (NOx)

Sulfur oxides

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

Evacuate area.

Special protective equipment :

for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Use personal protective equipment.

Follow safe handling advice and personal protective

equipment recommendations.

**Environmental precautions** Discharge into the environment must be avoided.

Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.





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Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable

container for disposal.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

employed in the cleanup of releases. You will need to

determine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

#### **SECTION 7. HANDLING AND STORAGE**

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not get on skin or clothing.

Do not swallow. Do not get in eyes.

Handle in accordance with good industrial hygiene and safety

practice.

Take care to prevent spills, waste and minimize release to the

environment.

Conditions for safe storage : Keep in properly labeled containers.

Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:

Strong oxidizing agents

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m³	OSHA Z-1
		TWA (Inhal- able fraction)	5 mg/m³	ACGIH
		TWA (Mist)	5 mg/m³	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	TWA (Mist)	5 mg/m³	OSHA Z-1
		TWA (Mist)	5 mg/m³	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
Talc	14807-96-6	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	2 mg/m³	NIOSH REL
		TWA (Res- pirable frac-	2 mg/m³	ACGIH





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		tion)	I	
Copper metal powder	7440-50-8	TWA (Dust	1 mg/m³	ACGIH
		and mist)	(Copper)	
		TWA	0.2 mg/m <sup>3</sup>	ACGIH
		(Fumes)	(Copper)	
		TWA (Dust)	1 mg/m³	NIOSH REL
			(Copper)	
		TWA (Mist)	1 mg/m³	NIOSH REL
			(Copper)	
		TWA (dusts	1 mg/m³	OSHA Z-1
		and mists)	(Copper)	
		TWA	0.1 mg/m <sup>3</sup>	OSHA Z-1
		(Fumes)	(Copper)	
Dolomite	16389-88-1	TWA (Res-	5 mg/m³	NIOSH REL
		pirable)	(Calcium car-	
			bonate)	
		TWA (total)	10 mg/m³	NIOSH REL
			(Calcium car-	
			bonate)	
Calcium oxide	1305-78-8	TWA	2 mg/m³	ACGIH
		TWA	2 mg/m³	NIOSH REL
		TWA	5 mg/m³	OSHA Z-1
Graphite	7782-42-5	TWA (Res- pirable)	2.5 mg/m <sup>3</sup>	NIOSH REL
		TWA (Respirable fraction)	2 mg/m³	ACGIH
		TWA (Dust)	15 Million particles per cubic foot	OSHA Z-3
Tris[bis(2- ethylhexyl)dithiocarbamato- S,S'] antimony	15991-76-1	TWA	0.5 mg/m³ (antimony)	OSHA Z-1
		TWA	0.5 mg/m <sup>3</sup> (antimony)	ACGIH
		TWA	0.5 mg/m <sup>3</sup> (antimony)	NIOSH REL
Quartz	14808-60-7	TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (Respirable fraction)	0.025 mg/m³ (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m³ (Silica)	NIOSH REL
		TWA (Respirable dust)	0.05 mg/m <sup>3</sup>	OSHA Z-1

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

Quartz





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**Engineering measures** : Minimize workplace exposure concentrations.

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 -

inhalable particles.

# Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where

concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided

by air purifying respirators against exposure to any

hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other

circumstance where air purifying respirators may not provide

adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending

on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before

breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:

Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical

resistance data and an assessment of the local exposure

potential.

Skin contact must be avoided by using impervious protective

clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are

located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**





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Appearance : Viscous semi-solid

Color : copper

Odor : Petroleum

Odor Threshold : No data available

pH : Not applicable (not an aqueous solution)

Melting point/freezing point : No data available

Initial boiling point and boiling

range

No data available

Flash point :  $>= 200 \, ^{\circ}\text{C}$ 

Method: ASTM D 92, Cleveland open cup

Distillates (petroleum), hydrotreated heavy naphthenic

Evaporation rate : Not applicable

Flammability (solid, gas) : Not classified as a flammability hazard

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : Not applicable

Relative vapor density : Not applicable

Relative density : 1.2

Density : No data available

Solubility(ies)

Water solubility : negligible

Partition coefficient: n-

octanol/water

Not applicable

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Flow time : No data available

Explosive properties : Not explosive





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

Molecular weight : No data available

Particle size : No data available

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition

products

No hazardous decomposition products are known.

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

# Information on likely routes of exposure

Skin contact Ingestion Eye contact

# **Acute toxicity**

Not classified based on available information.

## **Ingredients:**

# Distillates (petroleum), hydrotreated heavy naphthenic:

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

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

# Distillates (petroleum), hydrotreated heavy paraffinic:

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





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Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

Talc:

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

Remarks: Based on data from similar materials

Copper metal powder:

Acute oral toxicity : LD50 (Rat): > 2,500 mg/kg

Method: OECD Test Guideline 423

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat): > 5.11 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 436

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

**Dolomite:** 

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 420

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402





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Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

Calcium oxide:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 425

Assessment: The substance or mixture has no acute oral tox-

icity

Acute dermal toxicity : LD50 (Rabbit): > 2,500 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

**Graphite:** 

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

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

Remarks: Based on data from similar materials

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

Remarks: Based on data from similar materials

Quartz:

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

Skin corrosion/irritation

Not classified based on available information.

**Ingredients:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rabbit

Result: No skin irritation

Remarks: Based on data from similar materials

Distillates (petroleum), hydrotreated heavy paraffinic:

Species: Rabbit





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Result: No skin irritation

Remarks: Based on data from similar materials

Talc:

Species: Rabbit

Result: No skin irritation

Copper metal powder:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

**Dolomite:** 

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Remarks: Based on data from similar materials

Calcium oxide:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Skin irritation

Remarks: Based on data from similar materials

Graphite:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

**Product:** 

Result: Irritation to eyes, reversing within 21 days

**Ingredients:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rabbit

Result: No eye irritation

Remarks: Based on data from similar materials

Distillates (petroleum), hydrotreated heavy paraffinic:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials





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Talc:

Species: Rabbit Result: No eye irritation

Copper metal powder:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

**Dolomite:** 

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

Calcium oxide:

Species: Rabbit

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

**Graphite:** 

Species: Rabbit

Result: No eye irritation

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

**Ingredients:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig Result: negative

Remarks: Based on data from similar materials

Distillates (petroleum), hydrotreated heavy paraffinic:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Remarks: Based on data from similar materials





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Talc:

Routes of exposure: Skin contact

Species: Humans Result: negative

Copper metal powder:

Test Type: Maximization Test Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

**Dolomite:** 

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Method: OECD Test Guideline 429

Result: negative

Remarks: Based on data from similar materials

Graphite:

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse Result: negative

Germ cell mutagenicity

Not classified based on available information.

**Ingredients:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

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

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Intraperitoneal injection Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

Distillates (petroleum), hydrotreated heavy paraffinic:

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

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay)





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Species: Mouse

Application Route: Intraperitoneal injection Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

Talc:

Genotoxicity in vitro : Test Type: DNA damage and repair, unscheduled DNA syn-

thesis in mammalian cells (in vitro)

Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro

Species: Rat

Application Route: Ingestion

Result: negative

Copper metal powder:

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

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Ingestion

Method: Directive 67/548/EEC, Annex V, B.12.

Result: negative

Remarks: Based on data from similar materials

**Dolomite:** 

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

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Calcium oxide:

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

Method: OECD Test Guideline 471

Result: negative

**Graphite:** 

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

Result: negative

Carcinogenicity

Not classified based on available information.

**Product:** 

Carcinogenicity - Assess-

ment

Petroleum distillates have been classified as not carcinogenic

based on DMSO extract content < 3% (Regulation (EC)

1272/2008, Annex VI, Part 3, Note L).





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# **Ingredients:**

# Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Mouse

Application Route: Skin contact Exposure time: 78 weeks

Method: OECD Test Guideline 451

Result: negative

# Distillates (petroleum), hydrotreated heavy paraffinic:

Species: Mouse

Application Route: Skin contact Exposure time: 78 weeks

Method: OECD Test Guideline 451

Result: negative

Remarks: Based on data from similar materials

## Talc:

Species: Mouse

Application Route: inhalation (dust/mist/fume)

Exposure time: 2 Years

Result: negative

#### Calcium oxide:

Species: Rat

Application Route: Ingestion Exposure time: 104 weeks

Result: negative

Remarks: Based on data from similar materials

#### Quartz:

Species: Humans

Application Route: inhalation (dust/mist/fume)

Result: positive

Remarks: IARC: (International Agency for Research on Cancer)

These substance(s) are inextricably bound in the product and therefore do not contribute to a

dust inhalation hazard.

Carcinogenicity - Assess-

ment

Positive evidence from human epidemiological studies (inhala-

tion)

IARC Group 1: Carcinogenic to humans

Quartz 14808-60-7

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP Known to be human carcinogen





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Quartz 14808-60-7

#### Reproductive toxicity

Not classified based on available information.

#### **Ingredients:**

# Distillates (petroleum), hydrotreated heavy paraffinic:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Skin contact Method: OECD Test Guideline 414

Result: negative

Remarks: Based on data from similar materials

Talc:

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Ingestion

Result: negative

Copper metal powder:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rabbit

Application Route: Ingestion

Result: negative

**Dolomite:** 

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

**Application Route: Ingestion** 

Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat





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Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Calcium oxide:

Effects on fetal development : Test Type: Embryo-fetal development

Species: Mouse

Application Route: Ingestion Method: OECD Test Guideline 414

Result: negative

**Graphite:** 

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

# STOT-single exposure

Not classified based on available information.

# **Ingredients:**

## Calcium oxide:

Assessment: May cause respiratory irritation.

# STOT-repeated exposure

Not classified based on available information.

# **Ingredients:**

#### Quartz:

Routes of exposure: inhalation (dust/mist/fume)

Target Organs: Lungs

Assessment: Shown to produce significant health effects in animals at concentrations of 0.02

mg/l/6h/d or less.

# Repeated dose toxicity

# Ingredients:

# Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rat

NOAEL: > 0.98 mg/l





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Application Route: inhalation (dust/mist/fume)

Exposure time: 28 Days

Remarks: Based on data from similar materials

# Distillates (petroleum), hydrotreated heavy paraffinic:

Species: Rabbit NOAEL: 1,000 mg/kg

Application Route: Skin contact

Exposure time: 4 Weeks Method: OECD Test Guideline 410

Method. OLCD Test Guideline 410

Remarks: Based on data from similar materials

Species: Rat

NOAEL: > 980 mg/m<sup>3</sup>

Application Route: inhalation (dust/mist/fume)

Exposure time: 4 Weeks

#### Copper metal powder:

Species: Rat

NOAEL:  $>= 2 \text{ mg/m}^3$ 

Application Route: inhalation (dust/mist/fume)

Exposure time: 28 Days

#### **Dolomite:**

Species: Mouse NOAEL: 1,300 mg/kg Application Route: Ingestion Exposure time: 28 Days

Remarks: Based on data from similar materials

# **Graphite:**

Species: Rat NOAEL: 12 mg/m3

Application Route: inhalation (dust/mist/fume)

Exposure time: 28 Days

Method: OECD Test Guideline 412

# Quartz:

Species: Humans LOAEL: 0.053 mg/m<sup>3</sup>

Application Route: inhalation (dust/mist/fume)

Remarks: These substance(s) are inextricably bound in the product and therefore do not

contribute to a dust inhalation hazard.

# **Aspiration toxicity**

Not classified based on available information.





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#### **SECTION 12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

**Product:** 

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): 10,250 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 15,470 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

EC50 (Daphnia magna (Water flea)): 30,940 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

EC50 (Selenastrum capricornutum (green algae)): 70,100 Toxicity to algae

mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOEC (Selenastrum capricornutum (green algae)): 60,000

mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

## Ingredients:

Distillates (petroleum), hydrotreated heavy naphthenic:

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

Toxicity to algae EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOEC (Daphnia magna (Water flea)): 10 mg/l

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

Exposure time: 21 d

ic toxicity)

Remarks: Based on data from similar materials





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Toxicity to microorganisms : NOEC: > 1.93 mg/l

Exposure time: 10 min

Remarks: Based on data from similar materials

Distillates (petroleum), hydrotreated heavy paraffinic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 10 mg/l

Exposure time: 21 d Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

Toxicity to microorganisms : NOEC: > 1.93 mg/l

Exposure time: 10 min Method: DIN 38 412 Part 8

Remarks: Based on data from similar materials

Talc:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l

Exposure time: 24 h

Copper metal powder:

Toxicity to fish : LC50: >  $10 - 100 \mu g/l$ 

Exposure time: 96 h

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC:  $> 1 - 10 \mu g/l$ 

M-Factor (Chronic aquatic

toxicity)

10

**Dolomite:** 

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 16.6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203





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Remarks: No toxicity at the limit of solubility.

Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 16.6 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility.

Based on data from similar materials

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): 14 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Calcium oxide:

Toxicity to fish : LC50 (Gasterosteus aculeatus (threespine stickleback)): 457

mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

LC50: 158 mg/l Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 184.57

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): 48

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 32 mg/l Exposure time: 12 d

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50: 300.4 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

**Graphite:** 

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202





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Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50: > 1,012.5 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

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

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.02 mg/l

aquatic invertebrates (Chron-

is toxisity

ic toxicity)

Exposure time: 21 d
Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

M-Factor (Chronic aquatic : 1

toxicity)

**Ecotoxicology Assessment** 

Chronic aquatic toxicity : Very toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

Quartz:

**Ecotoxicology Assessment** 

Acute aquatic toxicity : No toxicity at the limit of solubility.

Chronic aquatic toxicity : No toxicity at the limit of solubility.

Persistence and degradability

**Product:** 

Biodegradability : Result: Readily biodegradable.

Remarks: Based on data from similar materials

**Ingredients:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 2 - 4 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Distillates (petroleum), hydrotreated heavy paraffinic:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 31 % Exposure time: 28 d

Method: OECD Test Guideline 301F

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





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Biodegradability : Result: Not readily biodegradable.

Remarks: Based on data from similar materials

# **Bioaccumulative potential**

No data available **Mobility in soil** 

No data available

Other adverse effects

No data available

# **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or

death.

If not otherwise specified: Dispose of as unused product.

#### **SECTION 14. TRANSPORT INFORMATION**

## **International Regulations**

**UNRTDG** 

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Copper metal powder, Hydrogen sulfide)

Class : 9
Packing group : III
Labels : 9

**IATA-DGR** 

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(Copper metal powder, Hydrogen sulfide)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

Packing instruction (passen- :

956

956

ger aircraft)

**IMDG-Code** 

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,





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N.O.S.

(Copper metal powder, Hydrogen sulfide)

Class Packing group Ш Labels 9

EmS Code F-A, S-F Marine pollutant yes

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

Not applicable for product as supplied.

## **Domestic regulation**

**49 CFR** 

UN/ID/NA number UN 3077

Environmentally hazardous substance, solid, n.o.s. Proper shipping name

(Copper metal powder, Hydrogen sulfide)

Class 9 Ш Packing group

CLASS 9 Labels 171

ERG Code

yes(Copper metal powder, Hydrogen sulfide) Marine pollutant

Remarks Above applies only to containers over 119 gallons or 450

liters.

# **SECTION 15. REGULATORY INFORMATION**

# **EPCRA - Emergency Planning and Community Right-to-Know**

#### **CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Copper metal powder	7440-50-8	5000	33060
Hydrogen sulfide	7783-06-4	100	177935
Ammonia	7664-41-7	100	*

<sup>\*:</sup> Calculated RQ exceeds reasonably attainable upper limit.

## SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Hydrogen sulfide	7783-06-4	100	177935
Ammonia	7664-41-7	100	*

<sup>\*:</sup> Calculated RQ exceeds reasonably attainable upper limit.

# SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards Acute Health Hazard

**SARA 313** The following components are subject to reporting levels

established by SARA Title III, Section 313:

Copper metal powder 7440-50-8 >= 10 - < 20 %





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Tris[bis(2- 15991-76-1 >= 1 - < 5 %

ethylhex-

yl)dithiocarbamato-S,S']

antimony

Antimony, dialkyl dithio- 15890-25-2 >= 0.1 - < 1 %

carbamate

## **US State Regulations**

## Pennsylvania Right To Know

Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Copper metal powder	7440-50-8
Talc	14807-96-6
Hydroxystearate sebacate lithium complexes	68815-49-6
Dolomite	16389-88-1
Calcium oxide	1305-78-8
Graphite	7782-42-5
Hydrogen sulfide	7783-06-4
Ammonia	7664-41-7

# California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

Quartz 14808-60-7

#### California List of Hazardous Substances

Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Copper metal powder	7440-50-8
Talc	14807-96-6
Calcium oxide	1305-78-8
Graphite	7782-42-5
Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony	15991-76-1

# **California Permissible Exposure Limits for Chemical Contaminants**

Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Copper metal powder	7440-50-8
Talc	14807-96-6
Calcium oxide	1305-78-8
Graphite	7782-42-5
Tris[bis(2-ethylhexyl)dithiocarbamato-S,S'] antimony	15991-76-1

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

DSL : All components of this product are on the Canadian DSL

TSCA : All chemical substances in this product are either listed on the

TSCA Inventory or are in compliance with a TSCA Inventory

exemption.



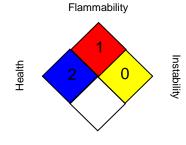


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#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

#### NFPA:



Special hazard.

#### HMIS® IV:

HEALTH	/ 2
FLAMMABILITY	1
PHYSICAL HAZARD	0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA Z-1 : USA, Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Min-

eral Dusts

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

OSHA Z-1 / TWA : 8-hour time weighted average OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC -International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Pre-





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vention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety

Data Sheet

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

Revision Date : 04/11/2017

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

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