

2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

SECTION 1. IDENTIFICATION

Product name

2000®

SDS-Identcode

294G

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. 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.



2000®

Version 9.6

Revision Date:

10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 30 - < 50
Graphite	7782-42-5	>= 20 - < 30
Talc	14807-96-6	>= 5 - < 10
Copper metal powder	7440-50-8	>= 1 - < 5
Calcium oxide	1305-78-8	>= 1 - < 5
Dolomite	16389-88-1	>= 1 - < 5
12-Hydroxy lithium stearate	7620-77-1	>= 1 - < 5
Quartz	14808-60-7	>= 1 - < 5
Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate)	57855-77-3	>= 1 - < 5

Actual concentration is withheld as a trade secret

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.

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 Causes serious eye irritation.

delayed

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



2000®

95

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical None known.

Unsuitable extinguishing

media

Specific hazards during fire

fighting

Hazardous combustion prod-

ucts

Exposure to combustion products may be a hazard to health.

Carbon oxides

Fluorine compounds

Metal oxides Silicon 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.

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, based on the results of the workplace exposure

assessment

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

environment.



2000®

100

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

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

Components	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 ³	NIOSH REL
Graphite	7782-42-5	TWA (Res- pirable)	2.5 mg/m³	NIOSH REL
		TWA (Res- pirable frac- tion)	2 mg/m³	ACGIH
		TWA (Dust)	15 Million particles per cubic foot	OSHA Z-3
Talc	14807-96-6	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Res- pirable)	2 mg/m³	NIOSH REL
		TWA (Res- pirable frac- tion)	2 mg/m³	ACGIH
Copper metal powder	7440-50-8	TWA (Dust and mist)	1 mg/m³ (Copper)	ACGIH
		TWA (Fumes)	0.2 mg/m³ (Copper)	ACGIH
		TWA (Dust)	1 mg/m³ (Copper)	NIOSH REL
		TWA (Mist)	1 mg/m³ (Copper)	NIOSH REL
		TWA (dusts and mists)	1 mg/m³ (Copper)	OSHA Z-1
		TWA (Fumes)	0.1 mg/m³ (Copper)	OSHA Z-1
Calcium oxide	1305-78-8	TWA	2 mg/m³	ACGIH
		TWA	2 mg/m³	NIOSH REL
		TWA	5 mg/m³	OSHA Z-1
Dolomite	16389-88-1	TWA (Respirable)	5 mg/m³ (Calcium car- bonate)	NIOSH REL
		TWA (total)	10 mg/m³	NIOSH REL



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

			(Calcium car- bonate)	
12-Hydroxy lithium stearate	7620-77-1	TWA (Inhal- able fraction)	10 mg/m³	ACGIH
		TWA (Res- pirable frac- tion)	3 mg/m³	ACGIH
Quartz	14808-60-7	TWA (Res- pirable dust)	0.05 mg/m ³	OSHA Z-1
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
	7	TWA (Res- pirable frac- tion)	0.025 mg/m³ (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m³ (Silica)	NIOSH REL

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

Quartz

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

Hand protection

Material

: Chemical-resistant gloves

adequate protection.

Remarks

 Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough



2000®

in the

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

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

Appearance

Color

Viscous semi-solid black, copper

Odor

Petroleum

Odor Threshold

No data available

рΗ

: Not applicable (not an aqueous solution)

Melting point/freezing point

No data available

Initial boiling point and boiling

No data available

range

Flash point

>= 392 °F / >= 200 °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

: 1.3

Solubility(ies)

Water solubility

negligible

Partition coefficient: n-

Not applicable



2000®

14

Version 9.6

Revision Date:

10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

octanol/water

Autoignition temperature

: No data available

Decomposition temperature

: No data available

Viscosity

Viscosity, kinematic

: Not applicable

Flow time

No data available

Explosive properties

Not explosive

Oxidizing properties

The substance or mixture is not classified as oxidizing.

Molecular weight

No data available

Particle size

No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Not classified as a reactivity hazard. Stable under normal conditions.

Possibility of hazardous reac- :

Can react with strong oxidizing agents.

tions

Conditions to avoid

None known.

Incompatible materials

Oxidizing agents

Hazardous decomposition

No hazardous decomposition products are known.

products

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact Ingestion Eye contact

Acute toxicity

Not classified based on available information.

Components:

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



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

Graphite:

Acute oral toxicity

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

Method: OECD Test Guideline 423

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

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

Calcium oxide:

Acute oral toxicity

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

Method: OECD Test Guideline 425

Acute inhalation toxicity

(Rat): > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 436

Remarks: Based on data from similar materials

Acute dermal toxicity

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

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-

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

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

12-Hydroxy lithium stearate:

Acute oral toxicity

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

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

icity

Quartz:

Acute oral toxicity

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

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

Acute oral toxicity

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

Remarks: Based on data from similar materials

Acute dermal toxicity

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

Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Species

Rabbit

Result

No skin irritation

Remarks

Based on data from similar materials

Graphite:

Species

Rabbit

Method

OECD Test Guideline 404

Result

No skin irritation

Talc:



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Species

: Rabbit

Result

No skin irritation

No skin irritation

Copper metal powder:

Species

Rabbit

Method

OECD Test Guideline 404

Result

Calcium oxide:

Species

Rabbit

Method

OECD Test Guideline 404

Result

Skin irritation

Remarks

: Based on data from similar materials

Dolomite:

Species

Rabbit

Method

: OECD Test Guideline 404

Result

: No skin irritation

Remarks

: Based on data from similar materials

12-Hydroxy lithium stearate:

Species

Rabbit

Result

No skin irritation

Remarks

: Based on data from similar materials

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

Species

Rabbit

Result

Skin irritation

Remarks

Based on data from similar materials

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Species

Rabbit

Result

: No eye irritation

Remarks

: Based on data from similar materials

Graphite:

Species

Rabbit

Result

: No eye irritation

Method

: OECD Test Guideline 405

Talc:

Species

Rabbit

Result

No eye irritation



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Copper metal powder:

Species

: Rabbit

Result

No eye irritation

Method

OECD Test Guideline 405

Calcium oxide:

Species

: Rabbit

Result Method Irreversible effects on the eye OECD Test Guideline 405

Dolomite:

Species

Rabbit

Result No eye irritation

Method

OECD Test Guideline 405

Remarks

Based on data from similar materials

12-Hydroxy lithium stearate:

Species

Rabbit

Result

No eye irritation

Remarks

Based on data from similar materials

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

Species

Rabbit

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

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Test Type

Buehler Test Skin contact

Routes of exposure

Guinea pig

Species Result

negative

Remarks

Based on data from similar materials

Graphite:

Test Type

: Local lymph node assay (LLNA)

Routes of exposure Species

Skin contact Mouse

Result

: negative



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Talc:

Routes of exposure

Skin contact

Species Result Humans negative

Copper metal powder:

Test Type

Maximization Test

Routes of exposure

Skin contact

Species

Guinea pig

Method

OECD Test Guideline 406

Result

negative

Calcium oxide:

Test Type

Local lymph node assay (LLNA)

Routes of exposure

Skin contact

Species

Mouse OECD Test Guideline 429

Method

negative

Result Remarks

Based on data from similar materials

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

12-Hydroxy lithium stearate:

Test Type

Local lymph node assay (LLNA)

Routes of exposure

Skin contact

Species

Mouse

Method

: OECD Test Guideline 429

Result

: negative

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

Test Type

Human repeat insult patch test (HRIPT)

Routes of exposure Result

Skin contact negative

Germ cell mutagenicity

Not classified based on available information.

Components:

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



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

cytogenetic assay) Species: Mouse

Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

Graphite:

Genotoxicity in vitro

Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

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

Calcium oxide:

Genotoxicity in vitro

Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Remarks: Based on data from similar materials



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

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

Genotoxicity in vitro

Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

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).

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Species

: Mouse

Application Route Exposure time

Skin contact 78 weeks

Method

OECD Test Guideline 451

Result

: negative

Talc:

Species

Mouse

Application Route

inhalation (dust/mist/fume)

Exposure time

2 Years

Result

negative

Calcium oxide:

Species

Rat

Application Route Exposure time

Ingestion 104 weeks

Result

negative

Remarks

Based on data from similar materials

Quartz:

Species

Humans



2000®

Version

Revision Date:

SDS Number:

Date of last issue: 10/01/2018

9.6

10/08/2018

115162-00021

Date of first issue: 05/12/2015

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

(Silica dust, crystalline)

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

Quartz

14808-60-7

(Silica, Crystalline (Respirable Size))

Reproductive toxicity

Not classified based on available information.

Components:

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

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



2000®

Version

Revision Date:

SDS Number:

Date of last issue: 10/01/2018

9.6

10/08/2018

115162-00021

Date of first issue: 05/12/2015

Effects on fetal development

Test Type: Embryo-fetal development

Species: Rabbit

Application Route: Ingestion

Result: negative

Calcium oxide:

Effects on fertility

Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Effects on fetal development

Test Type: Embryo-fetal development

Species: Mouse

Application Route: Ingestion Method: OECD Test Guideline 414

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

Application Route: Ingestion

Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

STOT-single exposure

Not classified based on available information.

Components:

Calcium oxide:

Assessment

May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Components:

12-Hydroxy lithium stearate:

Routes of exposure

Ingestion

Assessment

No significant health effects observed in animals at concentra-



2000®

Version 9.6

Revision Date:

SDS Number: 10/08/2018 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

tions of 100 mg/kg bw or less.

Quartz:

Routes of exposure

inhalation (dust/mist/fume)

Target Organs

Lungs

Assessment

Shown to produce significant health effects in animals at con-

centrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Species

Rat

NOAEL

> 0.98 mg/l

Application Route

inhalation (dust/mist/fume)

Exposure time

28 Days

Remarks

Based on data from similar materials

Copper metal powder:

Species

Rat

NOAEL

>= 2 mg/m³

Application Route

inhalation (dust/mist/fume)

Exposure time

28 Days

Calcium oxide:

Species

: Rat

NOAEL

>= 0.399 mg/l

Application Route

: inhalation (dust/mist/fume)

Exposure time

90 Days

Method

OECD Test Guideline 413

Dolomite:

Species

Mouse

NOAEL

1,300 mg/kg Ingestion

Exposure time

Application Route

28 Days

Remarks

Based on data from similar materials

12-Hydroxy lithium stearate:

Species

Rat

NOAEL Application Route

Exposure time

> 88 mg/kg Ingestion 90 Days

Quartz:

Species

Humans

LOAEL

0.053 mg/m³

Application Route

inhalation (dust/mist/fume)



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Remarks

These substance(s) are inextricably bound in the product and

therefore do not contribute to a dust inhalation hazard.

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 1,064,120

mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

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

Exposure time: 96 h

Method: OECD Test Guideline 202

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

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae

EC50 (Selenastrum capricornutum (green algae)): 11,267

mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

NOEC (Selenastrum capricornutum (green algae)): 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

Components:

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

Toxicity to daphnia and other

aquatic invertebrates (Chron-

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

Exposure time: 21 d





Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

ic toxicity)

Remarks: Based on data from similar materials

Toxicity to microorganisms

NOEC: > 1.93 mg/l

Exposure time: 10 min

Remarks: Based on data from similar materials

Graphite:

Toxicity to fish

LL50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Toxicity to algae

EL50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (green algae)): >

100 mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Toxicity to microorganisms

EC50: > 1,012.5 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

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 μg/l

Exposure time: 96 h

Toxicity to fish (Chronic tox-

: NOEC: > 1 - 10 μg/l

icity)

Calcium oxide:

Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

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

Exposure time: 96 h

Method: OECD Test Guideline 202



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Remarks: Based on data from similar materials

Toxicity to algae

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 1

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 (Crangon crangon (shrimp)): > 1 mg/l

Exposure time: 14 d

Remarks: Based on data from similar materials

Toxicity to microorganisms

EC50: > 100 mg/l Exposure time: 3 h

Exposure time: 3 n

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

Dolomite:

Toxicity to fish

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

Exposure time: 96 h

Method: OECD Test Guideline 203

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

12-Hydroxy lithium stearate:

Toxicity to fish

LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae

NOELR (Pseudokirchneriella subcapitata (green algae)): >

100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021 Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Quartz:

Ecotoxicology Assessment

Acute aquatic toxicity

No toxicity at the limit of solubility.

Chronic aquatic toxicity

No toxicity at the limit of solubility.

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

Toxicity to fish

: LC50 (Cyprinus carpio (Carp)): > 100 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

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

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to microorganisms

EC10: 110 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

Persistence and degradability

Product:

Biodegradability

Result: Readily biodegradable.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Biodegradability

Result: Not readily biodegradable.

Biodegradation: 2 - 4 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

12-Hydroxy lithium stearate:

Biodegradability

Result: Readily biodegradable.

Biodegradation: 78 % Exposure time: 28 d

Method: OECD Test Guideline 301C

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

Biodegradability

Result: Not readily biodegradable.

Biodegradation: 16 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

Remarks: Based on data from similar materials



2000®

Version 9.6

Revision Date:

SDS Number: 10/08/2018

115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

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

Contaminated packaging

Dispose of in accordance with local regulations.

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,

(Copper metal powder, Antimony, dialkyl dithiocarbamate)

Class

Labels

Packing group

9 III 9

IATA-DGR

UN/ID No.

UN 3077

Proper shipping name

Environmentally hazardous substance, solid, n.o.s.

(Copper metal powder, Antimony, dialkyl dithiocarbamate)

Class

Packing group

9

Ш

Labels

Miscellaneous

Packing instruction (cargo

956

aircraft)

Packing instruction (passen-

956

ger aircraft)

Environmentally hazardous

yes

IMDG-Code

UN number

UN 3077

Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Copper metal powder, Antimony, dialkyl dithiocarbamate)

Class



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

Packing group Labels : III : 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

Not regulated as a dangerous good

Special precautions for user

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

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Copper metal powder	7440-50-8	5000	132436

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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

Serious eye damage or eye irritation

SARA 313

The following components are subject to reporting levels

established by SARA Title III, Section 313:

Copper metal

powder

7440-50-8

>= 1 - < 5 %

US State Regulations

Pennsylvania Right To Know

-52-5
12-5
34-0
-96-6
50-8
78-8
-60-7
-25-2



2000®

Version 9.6

Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018 Date of first issue: 05/12/2015

California Prop. 65

WARNING: This product can expose you to chemicals including Quartz, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Graphite	7782-42-5
Talc	14807-96-6
Copper metal powder	7440-50-8
Calcium oxide	1305-78-8

California Permissible Exposure Limits for Chemical Contaminants

Distillates (petroleum), hydrotreated heavy naphthenic Graphite	64742-52-5 7782-42-5
Talc	14807-96-6
Copper metal powder	7440-50-8
Calcium oxide	1305-78-8
Quartz	14808-60-7

California Regulated Carcinogens

Quartz 14808-60-7

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.

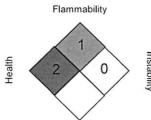
AICS

All ingredients listed or exempt.

SECTION 16. OTHER INFORMATION

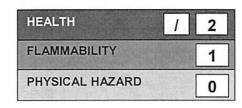
Further information

NFPA 704:



Special hazard.

HMIS® IV:



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)



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Date of last issue: 10/01/2018 Revision Date: SDS Number: Version 115162-00021 Date of first issue: 05/12/2015 9.6 10/08/2018 USA. NIOSH Recommended Exposure Limits NIOSH REL USA, Occupational Exposure Limits (OSHA) - Table Z-1 Lim-OSHA Z-1 its for Air Contaminants USA. Occupational Exposure Limits (OSHA) - Table Z-3 Min-OSHA Z-3 eral Dusts 8-hour, time-weighted average ACGIH / TWA Time-weighted average concentration for up to a 10-hour NIOSH REL / TWA workday during a 40-hour workweek STEL - 15-minute TWA exposure that should not be exceeded NIOSH REL / ST at any time during a workday OSHA Z-1 / TWA 8-hour time weighted average 8-hour time weighted average OSHA Z-3 / TWA

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 Prevention 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

: 10/08/2018



2000®

Version 9.6 Revision Date: 10/08/2018

SDS Number: 115162-00021

Date of last issue: 10/01/2018
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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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8