SAFETY DATA SHEET

COPPER JOINT

SECTION 1. IDENTIFICATION

Product name : COPPER JOINT
SDS-Identcode : 029G

Manufacturer or supplier’s details
Company name of supplier : Bestolife Corporation
Address : 2126 Vanco Drive
Irving TX 75061,
Telephone : 855-243-9164/972-865-8961
Telefax : 214-631-3047
(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 the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Eye irritation : Category 2A
Skin sensitization : Category 1
Carcinogenicity : Category 2
Reproductive toxicity : Category 1A
Effects on or via lactation
Specific target organ toxicity - repeated exposure : Category 1 (Kidney, Central nervous system, Blood)

GHS label elements
Hazard pictograms : ⚠️ ⚠️
Signal Word : Danger
Hazard Statements : H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
**Precautionary Statements**

**Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust, fume, gas, mist, vapors or spray.
P263 Avoid contact during pregnancy and while nursing.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Response:**
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical attention.
P333 + P313 IF skin irritation or rash occurs: Get medical attention.
P337 + P313 IF eye irritation persists: Get medical attention.
P363 Wash contaminated clothing before reuse.

**Storage:**
P405 Store locked up.

**Disposal:**
P501 Dispose of contents and container to an approved waste disposal plant.

**Other hazards**
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>64742-52-5</td>
<td>&gt;= 50 - &lt; 70</td>
</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Copper metal powder</td>
<td>7440-50-8</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>12-Hydroxy lithium stearate</td>
<td>7620-77-1</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>
**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.

**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. Rinse mouth thoroughly with water.

**Most important symptoms and effects, both acute and delayed**
May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. May damage fertility. May damage the unborn child. May cause harm to breast-fed children. Causes damage to organs through prolonged or repeated exposure.

**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 (see section 8).

**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 products**
Carbon oxides
Lead compounds
Metal oxides
Sulfur oxides

Actual concentration is withheld as a trade secret
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Specific extinguishing methods:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
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, protective equipment and emergency procedures:
Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions:
Avoid release to the environment.
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:
For outdoor use only
Avoid contact during pregnancy and while nursing.
Do not get on skin or clothing.
Do not breathe dust, fume, gas, mist, vapors or spray.
Do not swallow.
Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:
Keep in properly labeled containers.
Store locked up.
Keep tightly closed.
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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>64742-52-5</td>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST (Mist)</td>
<td>10 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>TWA</td>
<td>0.05 mg/m³ (Lead)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>0.05 mg/m³ (Lead)</td>
<td>OSHA CARC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.05 mg/m³ (Lead)</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>Copper metal powder</td>
<td>7440-50-8</td>
<td>TWA (Dust and mist)</td>
<td>1 mg/m³ (Copper)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Fumes)</td>
<td>0.2 mg/m³ (Copper)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>1 mg/m³ (Copper)</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Mist)</td>
<td>1 mg/m³ (Copper)</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (dusts and mists)</td>
<td>1 mg/m³ (Copper)</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Fumes)</td>
<td>0.1 mg/m³ (Copper)</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>TWA (Respirable)</td>
<td>2.5 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>15 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>TWA (Dust)</td>
<td>20 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>
12-Hydroxy lithium stearate 7620-77-1 TWA (Inhalable particulate matter) 10 mg/m³ ACGIH

TWA (Respirable particulate matter) 3 mg/m³ ACGIH

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 carbonate) NIOSH REL

TWA (total) 10 mg/m³ (Calcium carbonate) NIOSH REL

Quartz 14808-60-7 TWA (Respirable dust) 0.05 mg/m³ OSHA Z-1

TWA (respirable) 10 mg/m³ / %SiO2+2 OSHA Z-3

TWA (respirable) 250mppcf / %SiO2+5 OSHA Z-3

TWA (Respirable particulate matter) 0.025 mg/m³ (Silica) ACGIH

TWA (Respirable dust) 0.05 mg/m³ (Silica) NIOSH REL

PEL (respirable) 0.05 mg/m³ OSHA CARC

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

Quartz

**Biological occupational exposure limits**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>Lead (Lead)</td>
<td>In blood</td>
<td>Not critical</td>
<td>200 µg/l</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

**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: If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. See 29 CFR 1910.1025 for additional requirements relating to lead exposure.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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: >= 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

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

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.
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 inhalation 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

Lead:

Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
   Remarks: Based on data from similar materials

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

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 inhalation 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

Graphite:

Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

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

12-Hydroxy lithium stearate:

Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral 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

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

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

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

Dolomite:
Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 420  
Assessment: The substance or mixture has no acute oral toxicity  
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 inhalation 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

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

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

Lead:  
Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation  
Remarks: Based on data from similar materials

Copper metal powder:  
Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

Graphite:  
Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

Talc:  
Species: Rabbit  
Result: No skin irritation
### SAFETY DATA SHEET

#### COPPER JOINT

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
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<td>15.0</td>
<td>11/03/2020</td>
<td>122804-00020</td>
<td>05/06/2020</td>
<td>05/18/2015</td>
</tr>
</tbody>
</table>

**12-Hydroxy lithium stearate:**
- **Species**: Rabbit
- **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

**Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):**
- **Species**: Rabbit
- **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

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Product:**
- **Result**: Irritation to eyes, reversing within 21 days

**Components:**

**Distillates (petroleum), hydrotreated heavy naphthenic:**
- **Species**: Rabbit
- **Result**: No eye irritation
- **Remarks**: Based on data from similar materials

**Lead:**
- **Species**: Rabbit
- **Result**: No eye irritation
- **Method**: OECD Test Guideline 405
- **Remarks**: Based on data from similar materials

**Copper metal powder:**
- **Species**: Rabbit
- **Result**: No eye irritation
- **Method**: OECD Test Guideline 405

**Graphite:**
- **Species**: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

Talc:
Species: Rabbit
Result: No eye irritation

12-Hydroxy lithium stearate:
Species: Rabbit
Result: No eye irritation
Remarks: Based on data from similar materials

Calcium oxide:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Remarks: Based on data from similar materials

Dolomite:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

Respiratory sensitization
Not classified based on available information.

Components:

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

Lead:
Test Type: Maximization Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

**Copper metal powder:**
- Test Type: Maximization Test
- Routes of exposure: Skin contact
- Species: Guinea pig
- Method: OECD Test Guideline 406
- Result: negative

**Graphite:**
- Test Type: Local lymph node assay (LLNA)
- Routes of exposure: Skin contact
- Species: Mouse
- Result: negative

**Talc:**
- Routes of exposure: Skin contact
- Species: Humans
- Result: negative

**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 oxide:**
- 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

**Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):**
- Test Type: Buehler Test
- Routes of exposure: Skin contact
- Species: Guinea pig
- Result: positive
- Remarks: Based on data from similar materials

**Assessment:** Probability or evidence of low to moderate skin sensitization rate in humans

**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

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 cytogenetic assay)
  Species: Mouse
  Application Route: Intraperitoneal injection
  Method: OECD Test Guideline 474
  Result: negative
  Remarks: Based on data from similar materials

Lead:
- Genotoxicity in vitro: Test Type: In vitro sister chromatid exchange assay in mammalian cells
  Result: negative
  Remarks: Based on data from similar materials
- Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  Species: Rat
  Application Route: Ingestion
  Result: positive
  Remarks: Based on data from similar materials

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
  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
<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Test Type: In vitro mammalian cell gene mutation test</th>
<th>Method: OECD Test Guideline 476</th>
<th>Result: negative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test Type: Chromosome aberration test in vitro</td>
<td>Method: OECD Test Guideline 473</td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

Talc:

Genotoxicity in vitro: Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) | Result: negative |

Genotoxicity in vivo: Test Type: Chromosome aberration test in vitro | Species: Rat | Application Route: Ingestion | Result: negative |

Calcium oxide:

Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES) | Method: OECD Test Guideline 471 | Result: negative |

Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro | Method: OECD Test Guideline 473 | Result: negative | Remarks: Based on data from similar materials |

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

Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES) | Method: OECD Test Guideline 471 | Result: negative | Remarks: Based on data from similar materials |

Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test | Method: OECD Test Guideline 476 | Result: negative | Remarks: Based on data from similar materials |

Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro | Method: OECD Test Guideline 473 | 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 |
COPPER JOINT

Result: negative
Remarks: Based on data from similar materials

Carcinogenicity
Suspected of causing cancer.

Product:
Carcinogenicity - Assessment: 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: Skin contact
Exposure time: 78 weeks
Method: OECD Test Guideline 451
Result: negative

Lead:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: positive
Remarks: Based on data from similar materials

Carcinogenicity - Assessment: Limited evidence of carcinogenicity in animal studies

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

Carcinogenicity - Assessment: Positive evidence from human epidemiological studies (inhalation)
IARC

Group 1: Carcinogenic to humans
Quartz (Silica dust, crystalline)

Group 2B: Possibly carcinogenic to humans
Lead

OSHA

OSHA specifically regulated carcinogen
Lead (Lead and inorganic lead compounds)
OSHA specifically regulated carcinogen
Quartz (crystalline silica)

NTP

Reasonably anticipated to be a human carcinogen
Lead
Known to be human carcinogen
Quartz (Silica, Crystalline (Respirable Size))

Reproductive toxicity

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

Components:

Lead:

Effects on fertility
Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: positive
Remarks: Based on data from similar materials

Effects on fetal development
Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: positive
Remarks: Based on data from similar materials

Reproductive toxicity - Assessment
Positive evidence of adverse effects on sexual function and fertility from human epidemiological studies., Positive evidence of adverse effects on development from human epidemiological studies., Studies indicating a hazard to babies during the lactation period

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
### Graphite:

**Species:** Rabbit  
**Application Route:** Ingestion  
**Result:** negative

**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:

**Species:** Rat  
**Application Route:** Ingestion

**Effects on fetal development:**  
Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

### Calcium oxide:

**Species:** Rat  
**Application Route:** Ingestion

**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

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

**Species:** Rat

**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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Version 15.0
Revision Date: 11/03/2020
SDS Number: 122804-00020
Date of last issue: 05/06/2020
Date of first issue: 05/18/2015

Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

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
Causes damage to organs (Kidney, Central nervous system, Blood) through prolonged or repeated exposure.

Components:

Lead:
Target Organs
Kidney, Central nervous system, Blood
Assessment
Causes damage to organs through prolonged or repeated exposure.

12-Hydroxy lithium stearate:
Routes of exposure
Ingestion
Assessment
No significant health effects observed in animals at concentrations 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 concentrations 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

**Lead:**
- **Species:** Rat
- **NOAEL:** 0.0015 mg/kg
- **LOAEL:** 0.005 mg/kg
- **Application Route:** Ingestion
- **Exposure time:** 6 - 12 Months
- **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

**12-Hydroxy lithium stearate:**
- **Species:** Rat
- **NOAEL:** > 88 mg/kg
- **Application Route:** Ingestion
- **Exposure time:** 90 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

**Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):**
- **Species:** Rat
- **NOAEL:** 100 mg/kg
- **LOAEL:** 300 mg/kg
- **Application Route:** Ingestion
- **Exposure time:** 90 Days
- **Method:** OECD Test Guideline 408

**Dolomite:**
- **Species:** Mouse
- **NOAEL:** 1,300 mg/kg
- **Application Route:** Ingestion
## Exposition time
- **Remarks**: Based on data from similar materials

### Quartz:
- **Species**: Humans
- **LOAEL**: 0.053 mg/m³
- **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.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### 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/aquatic plants**: 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 (Chronic toxicity)**: NOEC (Daphnia magna (Water flea)): 10 mg/l
    - **Exposure time**: 21 d
    - **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

#### Lead:
- **Toxicity to fish**: LC₅₀ (Oncorhynchus mykiss (rainbow trout)): 0.107 mg/l
  - **Exposure time**: 96 h
- **Toxicity to daphnia and other aquatic invertebrates**: EC₅₀ (Ceriodaphnia dubia (water flea)): 0.029 mg/l
  - **Exposure time**: 48 h
- **Toxicity to algae/aquatic plants**: ErC₅₀ (Pseudokirchneriella subcapitata (green algae)): 0.025 mg/l
  - **Exposure time**: 72 h
EC10 (Pseudokirchneriella subcapitata (green algae)): 6.1 µg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity)
EC10 (Pimephales promelas (fathead minnow)): 20 µg/l
Exposure time: 30 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
EC10 (Ceriodaphnia dubia (water flea)): 1.7 µg/l
Exposure time: 7 d

Copper metal powder:
Toxicity to fish
LC50: > 10 - 100 µg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity)
NOEC: > 1 - 10 µg/l

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/aquatic plants
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

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

**Toxicity to algae/aquatic plants**

| Substance/Method | EC50 (Daphnia magna (Water flea)): | EC50 (Daphnia magna (Water flea)):
<table>
<thead>
<tr>
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<tbody>
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<tr>
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<td>OECD Test Guideline 202</td>
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</tbody>
</table>

**Remarks:** Based on data from similar materials

---

**Toxicity to algae/aquatic plants**

| Substance/Method | ErC50 (Pseudokirchneriella subcapitata (green algae)): | ErC50 (Pseudokirchneriella subcapitata (green algae)):
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<thead>
<tr>
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<tbody>
<tr>
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<tr>
<td>Remarks</td>
<td>Based on data from similar materials</td>
<td>Based on data from similar materials</td>
</tr>
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</table>

**Toxicity to daphnia and other aquatic invertebrates (Chron-**

| Substance/Method | NOEC (Crangon crangon (shrimp)): | NOEC (Crangon crangon (shrimp)):
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<tr>
<td>Remarks</td>
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</tbody>
</table>

**Toxicity to microorganisms**

<table>
<thead>
<tr>
<th>Substance/Method</th>
<th>EC50:</th>
<th>EC50:</th>
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<tr>
<td>Remarks</td>
<td>Based on data from similar materials</td>
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</tr>
</tbody>
</table>

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**Calcium oxide:**

| Substance/Method | LC50 (Oncorhynchus mykiss (rainbow trout)): | LC50 (Oncorhynchus mykiss (rainbow trout)):
<table>
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<tbody>
<tr>
<td>Exposure time</td>
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<tr>
<td>Method</td>
<td>OECD Test Guideline 203</td>
<td>OECD Test Guideline 203</td>
</tr>
</tbody>
</table>

**Remarks:** Based on data from similar materials

---

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

| Substance/Method | LL50 (Cyprinus carpio (Carp)): | LL50 (Cyprinus carpio (Carp)):
<table>
<thead>
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<th></th>
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<tbody>
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<tr>
<td>Method</td>
<td>OECD Test Guideline 203</td>
<td>OECD Test Guideline 203</td>
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<tr>
<td>Remarks</td>
<td>Based on data from similar materials</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

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**Toxicity to daphnia and other aquatic invertebrates**

| Substance/Method | EL50 (Daphnia magna (Water flea)): | EL50 (Daphnia magna (Water flea)):
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Exposure time</td>
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<td>&gt; 100 mg/l</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 202</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

**Remarks:** Based on data from similar materials
Toxicity to algae/aquatic plants:
- EL50 (Pseudokirchneriella subcapitata (green algae)): > 10 mg/l
  Exposure time: 72 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials

- EL10 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
  Exposure time: 72 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOELR (Daphnia magna (Water flea)): 2.2 mg/l
  Exposure time: 21 d
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 211

Toxicity to microorganisms:
- NOEC: > 100 mg/l
  Exposure time: 3 h
  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/aquatic plants:
- NOEC (Desmodesmus subspicatus (green algae)): 14 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials

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

**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, alkynaphthalenesulphonate):**
- Biodegradability: Result: Not readily biodegradable.
  - Remarks: Based on data from similar materials

Bioaccumulative potential

**Components:**

**Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):**
- Partition coefficient: n-octanol/water: log Pow: > 6.6

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. (Lead, Copper metal powder)

Class: 9
Packing group: III
Labels: 9

IATA-DGR
UN/ID No.: UN 3077
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead, Copper metal powder)
Class: 9
Packing group: III
Labels: Miscellaneous
Packing instruction (cargo aircraft): 956
Packing instruction (passenger aircraft): 956
Environmentally hazardous: yes

IMDG-Code
UN number: UN 3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead, Copper metal powder)
Class: 9
Packing group: III
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
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead, Copper metal powder)
Class: 9
Packing group: III
Labels: CLASS 9
ERG Code: 171
Marine pollutant: yes (Lead, Copper metal powder)
Remarks: THE ABOVE INFORMATION ONLY APPLIES TO PACKAGE SIZES WHERE THE HAZARDOUS SUBSTANCE MEETS THE REPORTABLE QUANTITY.

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

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
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<tbody>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
<td>10</td>
<td>83</td>
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<tr>
<td>Copper metal powder</td>
<td>7440-50-8</td>
<td>5000</td>
<td>51912</td>
</tr>
</tbody>
</table>

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
- Respiratory or skin sensitization
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity (single or repeated exposure)
- Serious eye damage or eye irritation

SARA 313
- The following components are subject to reporting levels established by SARA Title III, Section 313:
  - Lead 7439-92-1 >= 10 - < 20 %
  - Copper metal powder 7440-50-8 >= 5 - < 10 %

US State Regulations

Pennsylvania Right To Know
- Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
- Lead 7439-92-1
- Graphite 7782-42-5
- Copper metal powder 7440-50-8
- Talc 14807-96-6
- 12-Hydroxy lithium stearate 7620-77-1
- Calcium oxide 1305-78-8

California Prop. 65
WARNING: This product can expose you to chemicals including Lead, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances
- Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
- Lead 7439-92-1
- Graphite 7782-42-5
- Copper metal powder 7440-50-8
- Talc 14807-96-6
- Calcium oxide 1305-78-8

California Permissible Exposure Limits for Chemical Contaminants
- Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
SAFETY DATA SHEET

COPPER JOINT

Version 15.0 Revision Date: 11/03/2020 SDS Number: 122804-00020 Date of last issue: 05/06/2020 Date of first issue: 05/18/2015

Lead 7439-92-1
Graphite 7782-42-5
Copper metal powder 7440-50-8
Talc 14807-96-6
Calcium oxide 1305-78-8

California Regulated Carcinogens

Lead 7439-92-1
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:**

**HMIS® IV:**

Health 2 1 0 Instability

Flammability

HEALTH *

FLAMMABILITY

PHYSICAL HAZARD

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)
- ACGIH BEI: ACGIH - Biological Exposure Indices (BEI)
- NIOSH REL: USA. NIOSH Recommended Exposure Limits
- OSHA CARC: OSHA Specifically Regulated Chemicals/Carcinogens
- OSHA Z-1: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- OSHA Z-3: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
- ACGIH / TWA: 8-hour, time-weighted average
- NIOSH REL / TWA: Time-weighted average concentration for up to a 10-hour
SAFETY DATA SHEET

COPPER JOINT

Version: 15.0
Revision Date: 11/03/2020
SDS Number: 122804-00020
Date of last issue: 05/06/2020
Date of first issue: 05/18/2015

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 CARC / PEL : Permissible exposure limit (PEL)
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

AIIIC - Australian Inventory of Industrial Chemicals; 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


Revision Date : 11/03/2020

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

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
SAFETY DATA SHEET

COPPER JOINT

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