SECTION 1. IDENTIFICATION

Product name: BESTOLIFE® STINGER® WATER WELL
SDS-Identcode: 328G

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
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 the OSHA Hazard Communication Standard (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 and 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 attention.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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 light naphthenic</td>
<td>64742-53-6</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic</td>
<td>64742-52-5</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>Dolomite</td>
<td>16389-88-1</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>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

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 delayed : Causes serious eye irritation.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
                        Alcohol-resistant foam
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 spills 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
Do not get on skin or clothing.
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.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage

Keep in properly labeled containers.
Store in accordance with the particular national regulations.

Materials to avoid: Do not store with the following product types:
- Strong oxidizing agents

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

<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 light naphthenic</td>
<td>64742-53-6</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>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>
<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>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>
</tbody>
</table>
Dolomite 16389-88-1  TWA (Fumes) 0.1 mg/m³ (Copper)  OSHA Z-1

TWA (Respirable) 5 mg/m³ (Calcium carbonate)  NIOSH REL

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

Calcium oxide 1305-78-8 TWA 2 mg/m³  ACGIH

TWA 2 mg/m³  NIOSH REL

TWA 5 mg/m³  OSHA Z-1

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) 250 mppcf / %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

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

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

Material: Wear the following personal protective equipment:
Safety goggles

Skin and body protection

Material: 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

Material: 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.
Wash contaminated clothing before re-use.

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: >= 325.0 °F / >= 162.8 °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
SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Can react with strong oxidizing agents.
Conditions to avoid : None known.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Skin contact
Ingestion
Eye contact
### Acute toxicity

Not classified based on available information.

#### Components:

**Distillates (petroleum), hydrotreated light naphthenic:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute oral toxicity: LD50 (Rat): &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: OECD Test Guideline 401</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute inhalation toxicity: LC50 (Rat): &gt; 5.53 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 4 h</td>
<td></td>
</tr>
<tr>
<td>Test atmosphere: dust/mist</td>
<td></td>
</tr>
<tr>
<td>Method: OECD Test Guideline 403</td>
<td></td>
</tr>
<tr>
<td>Assessment: The substance or mixture has no acute inhalation toxicity</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute dermal toxicity: LD50 (Rabbit): &gt; 2,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment: The substance or mixture has no acute dermal toxicity</td>
<td></td>
</tr>
</tbody>
</table>

**Graphite:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute oral toxicity: LD50 (Rat): &gt; 2,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: OECD Test Guideline 423</td>
<td></td>
</tr>
<tr>
<td>Assessment: The substance or mixture has no acute oral toxicity</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute inhalation toxicity: LC50 (Rat): &gt; 2 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 4 h</td>
<td></td>
</tr>
<tr>
<td>Test atmosphere: dust/mist</td>
<td></td>
</tr>
<tr>
<td>Method: OECD Test Guideline 403</td>
<td></td>
</tr>
</tbody>
</table>

**Talc:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute oral toxicity: LD50 (Rat): &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks: Based on data from similar materials</td>
<td></td>
</tr>
</tbody>
</table>

**Distillates (petroleum), hydrotreated heavy naphthenic:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute oral toxicity: LD50 (Rat): &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: OECD Test Guideline 401</td>
<td></td>
</tr>
<tr>
<td>Remarks: Based on data from similar materials</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute inhalation toxicity: LC50 (Rat): &gt; 5.53 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 4 h</td>
<td></td>
</tr>
<tr>
<td>Test atmosphere: dust/mist</td>
<td></td>
</tr>
<tr>
<td>Method: OECD Test Guideline 403</td>
<td></td>
</tr>
<tr>
<td>Assessment: The substance or mixture has no acute inhalation toxicity</td>
<td></td>
</tr>
<tr>
<td>Remarks: Based on data from similar materials</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute dermal toxicity: LD50 (Rabbit): &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: OECD Test Guideline 402</td>
<td></td>
</tr>
<tr>
<td>Remarks: Based on data from similar materials</td>
<td></td>
</tr>
</tbody>
</table>
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

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

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

Skin corrosion/irritation
Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:
Species: Rabbit
Result: No skin irritation

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

Talc:
Species: Rabbit
Result: No skin irritation

Distillates (petroleum), hydrotreated heavy naphthenic:
Species: Rabbit
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

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

Calcium oxide:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation
Remarks: Based on data from similar materials

Serious eye damage/eye irritation
Causes serious eye irritation.
Components:

Distillates (petroleum), hydrotreated light naphthenic:
Species: Rabbit
Result: No eye irritation

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

Talc:
Species: Rabbit
Result: No eye irritation

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

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

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

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

Respiratory or skin sensitization
Skin sensitization
Not classified based on available information.
Respiratory sensitization
Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:
Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
<table>
<thead>
<tr>
<th>Test Type</th>
<th>Routes of exposure</th>
<th>Species</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite: Local lymph node assay (LLNA)</td>
<td>Skin contact</td>
<td>Mouse</td>
<td>negative</td>
<td></td>
</tr>
<tr>
<td>Talc:</td>
<td>Skin contact</td>
<td>Humans</td>
<td>negative</td>
<td></td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated heavy naphthenic:</td>
<td>Skin contact</td>
<td>Guinea pig</td>
<td>negative</td>
<td>Based on data from similar materials</td>
</tr>
<tr>
<td>Copper metal powder: Maximization Test</td>
<td>Skin contact</td>
<td>Guinea pig</td>
<td>negative</td>
<td>OECD Test Guideline 406</td>
</tr>
<tr>
<td>Dolomite:</td>
<td>Local lymph node assay (LLNA)</td>
<td>Mouse</td>
<td>negative</td>
<td>Based on data from similar materials</td>
</tr>
<tr>
<td>Calcium oxide:</td>
<td>Local lymph node assay (LLNA)</td>
<td>Mouse</td>
<td>negative</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

**Germ cell mutagenicity**
Not classified based on available information.

**Components:**

| Distillates (petroleum), hydrotreated light naphthenic: | Genotoxicity in vitro | Test Type: Bacterial reverse mutation assay (AMES) |
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

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 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

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

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)
### SAFETY DATA SHEET

**BESTOLIFE® STINGER® WATER WELL**

<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>11/05/2020</td>
<td>119052-00016</td>
<td>05/06/2020</td>
<td>05/18/2015</td>
</tr>
</tbody>
</table>

- **cytogenetic assay**
  - Species: Mouse
  - Application Route: Ingestion
  - Result: negative
  - Remarks: Based on data from similar materials

### Dolomite:

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

### Calcium oxide:

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

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

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

### Carcinogenicity

Not classified based on available information.

### 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 light naphthenic:

- **Species**: Mouse
- **Application Route**: Skin contact
- **Exposure time**: 78 weeks
- **Result**: negative

#### Talc:

- **Species**: Mouse
- **Application Route**: Inhalation (dust/mist/fume)
- **Exposure time**: 2 Years
- **Result**: negative
Distillates (petroleum), hydrotreated heavy naphthenic:
- Species: Mouse
- Application Route: Skin contact
- Exposure time: 78 weeks
- Method: OECD Test Guideline 451
- 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) 14808-60-7

OSHA
- OSHA specifically regulated carcinogen
  - Quartz (crystalline silica) 14808-60-7

NTP
- Known to be human carcinogen
  - Quartz (Silica, Crystalline (Respirable Size)) 14808-60-7

Reproductive toxicity
- Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:
- Effects on fertility: Test Type: Reproduction/Developmental toxicity screening test
  - Species: Rat
  - Application Route: Ingestion
  - Result: negative

- Effects on fetal development: Test Type: Embryo-fetal development
  - Species: Rat
  - Application Route: Skin contact
  - Result: negative
Graphite:
- Effects on fertility: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
  Species: Rat
  Application Route: Ingestion
  Method: OECD Test Guideline 422
  Result: negative

- Effects on fetal development: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
  Species: Rat
  Application Route: Ingestion
  Method: OECD Test Guideline 422
  Result: negative

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

Copper metal powder:
- Effects on fertility: Test Type: Two-generation reproduction toxicity study
  Species: Rat
  Application Route: Ingestion
  Result: negative
  Remarks: Based on data from similar materials

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

Dolomite:
- Effects on fertility: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
  Species: Rat
  Application Route: Ingestion
  Method: OECD Test Guideline 422
  Result: negative
  Remarks: Based on data from similar materials

- Effects on fetal development: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
  Species: Rat
  Application Route: Ingestion
  Method: OECD Test Guideline 422
  Result: negative
  Remarks: Based on data from similar materials

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

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:
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 light naphthenic:
Species: Rabbit
NOAEL: 1,000 mg/kg
Application Route: Skin contact
Exposure time: 4 Weeks
Method: OECD Test Guideline 410

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
SAFETY DATA SHEET

BESTOLIFE® STINGER® WATER WELL

NOAEL: >= 2 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 28 Days

Dolomite:
Species: Mouse
NOAEL: 1,300 mg/kg
Application Route: Ingestion
Exposure time: 28 Days
Remarks: Based on data from similar materials

Calcium oxide:
Species: Rat
NOAEL: >= 0.399 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 90 Days
Method: OECD Test Guideline 413

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

Product:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 1,064,120 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)): 16,410 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants: EC50 (Selenastrum capricornutum (green algae)): 110,268 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Selenastrum capricornutum (green algae)): 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Components:

Distillates (petroleum), hydrotreated light naphthenic:

- **Toxicity to fish**: LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
  Exposure time: 96 h
  Test substance: Water Accommodated Fraction

- **Toxicity to daphnia and other aquatic invertebrates**: EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
  Exposure time: 48 h
  Test substance: Water Accommodated Fraction

- **Toxicity to algae/aquatic plants**: NOELR (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
  Exposure time: 72 h
  Test substance: Water Accommodated Fraction

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

### 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

### 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

### 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
plants
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

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
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (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 (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
Method: OECD Test Guideline 209
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
Product:
Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

Components:
Distillates (petroleum), hydrotreated light naphthenic:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 8 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Distillates (petroleum), hydrotreated heavy naphthenic:

Biodegradability: Result: Not readily biodegradable.
Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with local regulations.
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number: UN 3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper metal powder, Antimony, dialkyl dithiocarbamate)

Class: 9
Packing group: III
Labels: 9

IATA-DGR
UN/ID No.: UN 3077
Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
(Copper metal powder, Antimony, dialkyl dithiocarbamate)

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. (Copper metal powder, Antimony, dialkyl dithiocarbamate)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : no

**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. (Copper metal powder, Antimony, dialkyl dithiocarbamate)
Class : 9
Packing group : III
Labels : CLASS 9
ERG Code : 171
Marine pollutant : yes(Copper metal powder, Antimony, dialkyl dithiocarbamate)
Remarks : Above applies only to containers over 119 gallons or 450 liters.

**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>
</tr>
</thead>
<tbody>
<tr>
<td>Copper metal powder</td>
<td>7440-50-8</td>
<td>5000</td>
<td>68433</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**
- Serious eye damage or eye irritation

**SARA 313**
The following components are subject to reporting levels established by SARA Title III, Section 313:
US State Regulations

Pennsylvania Right To Know

Distillates (petroleum), hydrotreated light naphthenic 64742-53-6
Graphite 7782-42-5
Talc 14807-96-6
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
Copper metal powder 7440-50-8
Calcium(2+) 12-hydroxyoctadecanoate 3159-62-4
Dolomite 16389-88-1
Calcium oxide 1305-78-8
Quartz 14808-60-7
Antimony, dialkyl dithiocarbamate 15890-25-2

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 light naphthenic 64742-53-6
Graphite 7782-42-5
Talc 14807-96-6
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
Copper metal powder 7440-50-8
Calcium oxide 1305-78-8

California Permissible Exposure Limits for Chemical Contaminants

Distillates (petroleum), hydrotreated light naphthenic 64742-53-6
Graphite 7782-42-5
Talc 14807-96-6
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5
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:  
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)
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 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

AICL - 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 Pre-
Sources of key data used to compile the Material Safety Data Sheet:

Revision Date: 11/05/2020

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 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