SAFETY DATA SHEET

BESTOLIFE STORAGE COMPOUND

Version 7.1 Revision Date: 11/06/2020 SDS Number: 117355-00018 Date of last issue: 05/06/2020 Date of first issue: 05/18/2015

SECTION 1. IDENTIFICATION

Product name: BESTOLIFE STORAGE COMPOUND
Other means of identification: No data available
SDS-Identcode: 437G

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
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 Hazardous Products Regulations
Skin sensitization: Sub-category 1B

GHS label elements
Hazard pictograms: !

Signal Word: Warning
Hazard Statements: H317 May cause an allergic skin reaction.
Precautionary Statements: Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapors or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical atten-
tion.
P362 + P364 Take off contaminated clothing and wash it before reuse.
**Disposal:**
P501 Dispose of contents and container to an approved waste disposal plant.

**Other hazards**
None known.

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

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substances / Mixture</td>
<td>Mixture</td>
</tr>
<tr>
<td>Components</td>
<td></td>
</tr>
<tr>
<td>Chemical name</td>
<td>CAS-No.</td>
</tr>
<tr>
<td>Distillates (petroleum),</td>
<td>64742-52-5</td>
</tr>
<tr>
<td>hydrotreated</td>
<td></td>
</tr>
<tr>
<td>heavy naphthenic</td>
<td></td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>471-34-1</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
</tr>
<tr>
<td>Distillates (petroleum),</td>
<td>64742-53-6</td>
</tr>
<tr>
<td>hydrotreated</td>
<td></td>
</tr>
<tr>
<td>light naphthenic</td>
<td></td>
</tr>
<tr>
<td>Calcium bis(di C8-C10,</td>
<td>57855-77-3</td>
</tr>
<tr>
<td>branched, C9 rich,</td>
<td></td>
</tr>
<tr>
<td>alkynaphthalenesulphonate)</td>
<td></td>
</tr>
<tr>
<td>12-Hydroxy lithium stearate</td>
<td>7620-77-1</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
</tr>
</tbody>
</table>

* Actual concentration or concentration range 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**
Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

**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**
May cause an allergic skin reaction.

**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 firefighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Metal oxides
Sulfur oxides

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 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.
Avoid breathing dust, fume, gas, mist, vapors or spray.
Do not swallow.
Avoid contact with eyes.
Handle in accordance with good industrial hygiene and safety
**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>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL (Mist)</td>
<td>10 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWAEV (Mist)</td>
<td>5 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEV (Mist)</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Mist)</td>
<td>1 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>471-34-1</td>
<td>TWAEV (total dust)</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total dust)</td>
<td>10 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>3 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>20 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>TWAEV (total dust)</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m³</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total dust)</td>
<td>10 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>3 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>20 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light naphthenic</td>
<td>64742-53-6</td>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL (Mist)</td>
<td>10 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
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<td>TWAEV (Mist)</td>
<td>5 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEV (Mist)</td>
<td>10 mg/m³</td>
<td>CA QC OEL</td>
</tr>
</tbody>
</table>

practise, 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
<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA (Mist)</th>
<th>TWA (Inhalable particulate matter)</th>
<th>TWA (Respirable particulate matter)</th>
<th>TWA (Total dust)</th>
<th>TWA (respirable dust fraction)</th>
<th>TWA (Total dust)</th>
<th>TWA (respirable dust fraction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7620-77-1 12-Hydroxy lithium stearate</td>
<td>10 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>13463-67-7 Titanium dioxide</td>
<td>10 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
<td>10 mg/m³</td>
<td>3 mg/m³</td>
</tr>
</tbody>
</table>

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

Titanium dioxide

**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**: If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

**Filter type** : Combined particulates and organic vapor type

**Hand protection** : 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 glasses

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Viscous semi-solid
- Color: Off-white
- 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: Not applicable
- 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: 1.0
- 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.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reac-
tions : Can react with strong oxidizing agents.
Conditions to avoid : None known.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

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

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

Acute inhalation toxicity: LC50 (Rat): > 3 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

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

Limestone:
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
   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 (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

Distillates (petroleum), hydrotreated light naphthenic:
Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

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

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

Calcium bis(di C8-C10, branched, C9 rich, alkylnapthalenesulphonate):
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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

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

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

Acute inhalation toxicity : LC50 (Rat): > 6.82 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation
Not classified based on available information.

Components:

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

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

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

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

**Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):**
Species: Rabbit
Result: Skin irritation
Remarks: Based on data from similar materials

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

**Titanium dioxide:**
Species: Rabbit
Result: No skin irritation

**Serious eye damage/eye irritation**
Not classified based on available information.

**Components:**

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

**Calcium carbonate:**
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

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

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

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

Titanium dioxide:
Species: Rabbit
Result: No eye irritation

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

Calcium carbonate:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: negative

Limestone:
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

Distillates (petroleum), hydrotreated light naphthenic:
Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):  
Test Type: Buehler Test
SAFETY DATA SHEET

BESTOLIFE STORAGE COMPOUND

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Date of last issue</th>
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<tr>
<td>7.1</td>
<td>11/06/2020</td>
<td>117355-00018</td>
<td>05/06/2020</td>
<td>05/18/2015</td>
</tr>
</tbody>
</table>

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

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

Titanium dioxide:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Germ cell mutagenicity
Not classified based on available information.

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

Calcium carbonate:
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
Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Limestone:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

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

Distillates (petroleum), hydrotreated light naphthenic:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 476
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

Calcium bis(di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate):
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

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

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

Titanium dioxide:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo: Test Type: In vivo micronucleus test
Species: Mouse
Result: negative
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 heavy naphthenic:
Species: Mouse
Application Route: Skin contact
Exposure time: 78 weeks
Method: OECD Test Guideline 451
Result: negative

Distillates (petroleum), hydrotreated light naphthenic:
Species: Mouse
Application Route: Skin contact
Exposure time: 78 weeks
Result: negative

Titanium dioxide:
Species: Rat
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 Years
Method: OECD Test Guideline 453
Result: positive
Remarks: The mechanism or mode of action may not be relevant in humans.

Carcinogenicity - Assessment: Limited evidence of carcinogenicity in inhalation studies with animals.

Reproductive toxicity
Not classified based on available information.

Components:

Calcium carbonate:
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: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Limestone:
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

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

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

STOT-repeated exposure
Not classified based on available information.
### Components:

#### 12-Hydroxy lithium stearate:
- Routes of exposure: Ingestion
- Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw 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

#### Calcium carbonate:
- Species: Rat
- NOAEL: > 1,000 mg/kg
- Application Route: Ingestion
- Exposure time: 28 Days
- Method: OECD Test Guideline 422

#### Limestone:
- Species: Rat
- NOAEL: > 300 mg/kg
- Application Route: Ingestion
- Exposure time: 28 Days
- Method: OECD Test Guideline 422
- Remarks: Based on data from similar materials

#### 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

#### 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

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

Titanium dioxide:
Species: Rat
NOAEL: 24,000 mg/kg
Application Route: Ingestion
Exposure time: 28 Days

Species: Rat
NOAEL: 10 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 y

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:
Toxicity to fish
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants
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)
Exposure time: 21 d
Remarks: Based on data from similar materials

Toxicity to microorganisms
Exposure time: 10 min
Remarks: Based on data from similar materials

Calcium carbonate:
Toxicity to fish
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

- **NOELR (Pseudokirchneriella subcapitata (green algae)):** 50 mg/l
  - Exposure time: 72 h
  - Test substance: Water Accommodated Fraction
  - Method: OECD Test Guideline 201

  - **EL50 (Pseudokirchneriella subcapitata (green algae)):** > 100 mg/l
    - Exposure time: 72 h
    - Test substance: Water Accommodated Fraction
    - Method: OECD Test Guideline 201

### Toxicity to microorganisms

- **NOEC:** 1,000 mg/l
  - Exposure time: 3 h
  - Method: OECD Test Guideline 209

- **EC50:** > 1,000 mg/l
  - Exposure time: 3 h
  - Method: OECD Test Guideline 209

### Limestone:

- **Toxicity to fish**
  - **LL50 (Oncorhynchus mykiss (rainbow trout)):** > 100 mg/l
    - Exposure time: 96 h
    - Test substance: Water Accommodated Fraction
    - Method: OECD Test Guideline 203
    - Remarks: Based on data from similar materials

- **Toxicity to daphnia and other aquatic invertebrates**
  - **LL50 (Daphnia magna (Water flea)):** > 100 mg/l
    - Exposure time: 48 h
    - Test substance: Water Accommodated Fraction
    - Method: OECD Test Guideline 202
    - Remarks: Based on data from similar materials

- **Toxicity to algae/aquatic plants**
  - **EL50 (Desmodesmus subspicatus (green algae)):** > 14 mg/l
    - Exposure time: 72 h
    - Test substance: Water Accommodated Fraction
    - Method: OECD Test Guideline 201
    - Remarks: No toxicity at the limit of solubility.
      - Based on data from similar materials

    - **EL10 (Desmodesmus subspicatus (green algae)):** > 14 mg/l
      - Exposure time: 72 h
      - Test substance: Water Accommodated Fraction
      - Method: OECD Test Guideline 201
      - Remarks: No toxicity at the limit of solubility.
        - Based on data from similar materials

- **Toxicity to microorganisms**
  - **EC50:** > 100 mg/l
    - Exposure time: 3 h
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

Remarks:
Based on data from similar materials

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

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Daphnia magna (Water flea)): 10 mg/l
  Exposure time: 21 d

Toxicity to microorganisms:
- NOEC (Photobacterium phosphoreum): > 2.17 mg/l
  Exposure time: 4 d

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

Toxicity to fish:
- LL50 (Cyprinus carpio (Carp)): > 100 mg/l
  Exposure time: 96 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 203
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates:
- EL50 (Daphnia magna (Water flea)): > 100 mg/l
  Exposure time: 48 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 202
  Remarks: Based on data from similar materials

Toxicity to 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

12-Hydroxy lithium stearate:
- Toxicity to fish:
  - LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates:
  - EL50 (Daphnia magna (Water flea)): > 100 mg/l
  - Exposure time: 48 h
  - Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants:
  - NOELR (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201

Titanium dioxide:
- Toxicity to fish:
  - LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates:
  - EC50 (Daphnia magna (Water flea)): > 100 mg/l
  - Exposure time: 48 h
- Toxicity to algae/aquatic plants:
  - EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l
  - Exposure time: 72 h
- Toxicity to microorganisms:
  - EC50: > 1,000 mg/l
  - Exposure time: 3 h
  - Method: OECD Test Guideline 209

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

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

Calcium bis(di C8-C10, branched, C9 rich, alkynaphthalenesulphonate):
Biodegradability: Result: Not readily biodegradable. Remarks: Based on data from similar materials

12-Hydroxy lithium stearate:
Biodegradability: Result: Readily biodegradable. Biodegradation: 78 % Exposure time: 28 d Method: OECD Test Guideline 301C

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
Not regulated as a dangerous good
IATA-DGR
Not regulated as a dangerous good
IMDG-Code
Not regulated as a dangerous good
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.
Domestic regulation
TDG
SECTION 15. REGULATORY INFORMATION

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

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA BC OEL : Canada. British Columbia OEL
CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA : 8-hour, time-weighted average
CA AB OEL / TWA : 8-hour Occupational exposure limit
CA AB OEL / STEL : 15-minute occupational exposure limit
CA BC OEL / TWA : 8-hour time weighted average
CA BC OEL / STEL : short-term exposure limit
CA QC OEL / TWA EV : Time-weighted average exposure value
CA QC OEL / STEV : Short-term exposure value

AII C - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; ICS0 - 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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 Substanc-
Sources of key data used to compile the Material Safety Data Sheet:


Revision Date: 11/06/2020
Date format: mm/dd/yyyy

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.

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