

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

SECTION 1. IDENTIFICATION

Product name : 4010® NM
Other means of identification : No data available
SDS-Identcode : 504G

Manufacturer or supplier's details

Company name of supplier : Bestolife Corporation
Address : 2777 N. Stemmons Frwy Ste 1800
Dallas TX 75207,
Telephone : 855-243-9164/972-865-8961
Telefax : 214-631-3047
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

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.

Precautionary Statements :

Prevention:

P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|--|------------|-----------------------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | >= 30 - < 60 |
| Graphite | 7782-42-5 | >= 10 - < 30 |
| Talc | 14807-96-6 | >= 5 - < 10 |
| Calcium carbonate | 471-34-1 | >= 5 - < 10 |
| Calcium acetate | 62-54-4 | >= 5 - < 10 |
| Calcium fluoride | 7789-75-5 | >= 5 - < 10 |
| Titanium dioxide | 13463-67-7 | >= 1 - < 5 |
| Calcium oxide | 1305-78-8 | >= 1 - < 5 |
| Quartz | 14808-60-7 | >= 0.1 - < 1 |

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 : 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.
- Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

- Unsuitable extinguishing media : Carbon dioxide (CO2)
Dry chemical
None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Metal oxides
Fluorine compounds
Oxides of phosphorus
- 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 and personal protective equipment recommendations.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.
-

SECTION 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Advice on safe handling : Do not get on skin or clothing.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.
-

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
 Date of first issue: 05/19/2015

Materials to avoid : Store in accordance with the particular national regulations.
 : Do not store with the following product types:
 Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|------------|-------------------------------|--|-----------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | TWA (Mist) | 5 mg/m ³ | CA AB OEL |
| | | STEL (Mist) | 10 mg/m ³ | CA AB OEL |
| | | TWAEV (Mist) | 5 mg/m ³ | CA QC OEL |
| | | STEV (Mist) | 10 mg/m ³ | CA QC OEL |
| | | TWA (Mist) | 1 mg/m ³ | CA BC OEL |
| Graphite | 7782-42-5 | TWA (Inhalable fraction) | 5 mg/m ³ | ACGIH |
| | | TWA (Respirable) | 2 mg/m ³ | CA BC OEL |
| | | TWA (Respirable) | 2 mg/m ³ | CA AB OEL |
| | | TWAEV (respirable dust) | 2 mg/m ³ | CA QC OEL |
| | | TWA (Respirable fraction) | 2 mg/m ³ | ACGIH |
| Talc | 14807-96-6 | TWAEV (respirable dust) | 3 mg/m ³ | CA QC OEL |
| | | TWA (Respirable particulates) | 2 mg/m ³ | CA AB OEL |
| | | TWA (Respirable) | 2 mg/m ³ | CA BC OEL |
| | | TWA | 2 fibres per cubic centimeter | CA ON OEL |
| | | TWA (Respirable fraction) | 2 mg/m ³ | CA ON OEL |
| Calcium carbonate | 471-34-1 | TWA (Respirable fraction) | 2 mg/m ³ | ACGIH |
| | | TWAEV (total dust) | 10 mg/m ³ | CA QC OEL |
| | | TWA | 10 mg/m ³ (Calcium carbonate) | CA AB OEL |
| Calcium fluoride | 7789-75-5 | TWA | 2.5 mg/m ³ | CA AB OEL |

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
 Date of first issue: 05/19/2015

| | | | | |
|------------------|------------|--------------------------------|--|-----------|
| | | | (Fluorine) | |
| | | TWAEV | 2.5 mg/m ³ (Fluorine) | CA QC OEL |
| | | TWA | 2.5 mg/m ³ (Fluorine) | CA BC OEL |
| | | TWA | 2.5 mg/m ³ (Fluorine) | ACGIH |
| Titanium dioxide | 13463-67-7 | TWA | 10 mg/m ³ | CA AB OEL |
| | | TWA (Total dust) | 10 mg/m ³ | CA BC OEL |
| | | TWA (respirable dust fraction) | 3 mg/m ³ | CA BC OEL |
| | | TWAEV (total dust) | 10 mg/m ³ | CA QC OEL |
| | | TWA | 10 mg/m ³ (Titanium dioxide) | ACGIH |
| Calcium oxide | 1305-78-8 | TWA | 2 mg/m ³ | CA AB OEL |
| | | TWA | 2 mg/m ³ | CA BC OEL |
| | | TWAEV | 2 mg/m ³ | CA QC OEL |
| | | TWA | 2 mg/m ³ | ACGIH |
| Quartz | 14808-60-7 | TWA (Respirable fraction) | 0.1 mg/m ³ | CA ON OEL |
| | | TWA (Respirable particulates) | 0.025 mg/m ³ | CA AB OEL |
| | | TWAEV (respirable dust) | 0.1 mg/m ³ | CA QC OEL |
| | | TWA (Respirable) | 0.025 mg/m ³ (Silica) | CA BC OEL |
| | | TWA (Respirable fraction) | 0.025 mg/m ³ (Silica) | ACGIH |

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

Titanium dioxide

Quartz

Occupational exposure limits of decomposition products

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-------------------|----------|----------------------------------|--|-----------|
| Calcium carbonate | 471-34-1 | TWAEV (total dust) | 10 mg/m ³ | CA QC OEL |
| | | TWA | 10 mg/m ³ (Calcium carbonate) | CA AB OEL |
| Acetone | 67-64-1 | TWA | 500 ppm 1,200 mg/m ³ | CA AB OEL |

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
 Date of first issue: 05/19/2015

| | | | | |
|--|--|-------|--------------------------------------|-----------|
| | | STEL | 750 ppm 1,800 mg/m ³ | CA AB OEL |
| | | TWA | 250 ppm | CA BC OEL |
| | | STEL | 500 ppm | CA BC OEL |
| | | TWAEV | 500 ppm 1,190 mg/m ³ | CA QC OEL |
| | | STEV | 1,000 ppm 2,380 mg/m ³ | CA QC OEL |
| | | TWA | 250 ppm | ACGIH |
| | | STEL | 500 ppm | ACGIH |

Biological occupational exposure limits

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|------------------|-----------|---------------------|---------------------|--|---------------------------|-----------|
| Calcium fluoride | 7789-75-5 | Fluoride (Fluorine) | Urine | Prior to shift (16 hours after exposure ceases) | 2 mg/l | ACGIH BEI |
| | | Fluoride (Fluorine) | Urine | End of shift (As soon as possible after exposure ceases) | 3 mg/l | ACGIH BEI |

Engineering measures : Processing may form hazardous compounds (see section 10).
 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 : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Self-contained breathing apparatus

Hand protection

Material : Chemical-resistant gloves

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

time is not determined for the product. Change gloves often!
For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Viscous semi-solid
Color : light gray
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 : 208 °C
Method: ASTM D 2887
Distillates (petroleum), hydrotreated light naphthenic

Flash point : 160 °C
Method: Cleveland open cup
Distillates (petroleum), hydrotreated light 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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Solubility(ies)
Water solubility : negligible

Partition coefficient: n-octanol/water : Not applicable

Autoignition temperature : 490 °C
Method: ASTM E 659

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 2.085 mm²/s (40 °C)
Distillates (petroleum), hydrotreated light naphthenic
20.85 cSt (40 °C)
Distillates (petroleum), hydrotreated light naphthenic

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 reactions : Can react with strong oxidizing agents.
Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products
Thermal decomposition : Calcium carbonate
Acetone

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

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

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

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Calcium acetate:

- Acute oral toxicity : LD50 (Rat): 1,943 mg/kg
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): > 5.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: Based on data from similar materials

Calcium fluoride:

- 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): > 5.07 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

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

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

Calcium carbonate:

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

Calcium acetate:

Species : Rabbit
Result : No skin irritation

Calcium fluoride:

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

Titanium dioxide:

Species : Rabbit
Result : No skin irritation

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.

4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

Calcium carbonate:

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

Calcium acetate:

Species : Rabbit
Result : No eye irritation

Calcium fluoride:

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

Titanium dioxide:

Species : Rabbit
Result : No eye irritation

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

Calcium carbonate:

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

Calcium fluoride:

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

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

Germ cell mutagenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

- 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

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

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

Calcium acetate:

- Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Genotoxicity in vivo : Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Calcium fluoride:

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

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).

4010® NM

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 05/07/2018 |
| 3.7 | 10/01/2018 | 117397-00014 | Date of first issue: 05/19/2015 |

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 |

Calcium fluoride:

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

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. |
|------------------------------|---|---|

Calcium oxide:

| | | |
|-------------------|---|--------------------------------------|
| Species | : | Rat |
| Application Route | : | Ingestion |
| Exposure time | : | 104 weeks |
| Result | : | negative |
| Remarks | : | Based on data from similar materials |

Quartz:

| | | |
|-------------------|---|--|
| Species | : | Humans |
| Application Route | : | inhalation (dust/mist/fume) |
| Result | : | positive |
| Remarks | : | IARC: (International Agency for Research on Cancer) These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard. |

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

4010® NM

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 05/07/2018 |
| 3.7 | 10/01/2018 | 117397-00014 | Date of first issue: 05/19/2015 |

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

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Calcium acetate:

Effects on fertility : Test Type: One-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: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Calcium fluoride:

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: Rat
Application Route: Ingestion
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.

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Components:

Calcium fluoride:

Assessment : No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d 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 light naphthenic:

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

Calcium carbonate:

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

Calcium acetate:

Species : Rat
NOAEL : >= 3,600 mg/kg
Application Route : Ingestion
Exposure time : 28 Days
Remarks : Based on data from similar materials

Calcium fluoride:

Species : Rat
NOAEL : 0.007 mg/kg
Application Route : inhalation (dust/mist/fume)
Exposure time : 28 Days
Method : OECD Test Guideline 412
Remarks : Based on data from similar materials

Titanium dioxide:

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

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

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 : 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

Graphite:

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

- Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 202
- Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
- NOELR (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC50: > 1,012.5 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
- Talc:**
- Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l
Exposure time: 24 h
- Calcium carbonate:**
- 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
- 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 : 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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

Calcium acetate:

- Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 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: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials
- Toxicity to algae : ErC50 (Skeletonema costatum (marine diatom)): > 100 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials
- NOEC (Skeletonema costatum (marine diatom)): > 100 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC50 (Pseudomonas putida): > 100 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8
Remarks: Based on data from similar materials

Calcium fluoride:

- Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials
- Toxicity to algae : EbC50: > 10 - 100 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
- NOEC: > 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1 - 10 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

Toxicity to microorganisms : NOEC (Protozoa): > 10 - 100 mg/l
Exposure time: 20 h
Remarks: Based on data from similar materials

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 : 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

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 : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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 light naphthenic:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 8 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Calcium acetate:

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

Calcium acetate:

Partition coefficient: n-octanol/water : log Pow: -1.38

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

SAFETY DATA SHEET



4010® NM

Version 3.7 Revision Date: 10/01/2018 SDS Number: 117397-00014 Date of last issue: 05/07/2018
Date of first issue: 05/19/2015

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

Not regulated as a dangerous good

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.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL : Canada. British Columbia OEL
CA ON OEL : Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
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
ACGIH / STEL : Short-term exposure limit
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 ON OEL / TWA : Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV : Time-weighted average exposure value
CA QC OEL / STEV : Short-term exposure value

AICS - Australian Inventory of Chemical Substances; 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; CPR - Controlled Products Regulations; 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

SAFETY DATA SHEET



4010® NM

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 05/07/2018 |
| 3.7 | 10/01/2018 | 117397-00014 | Date of first issue: 05/19/2015 |

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; 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; KECl - 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 Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 10/01/2018

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.

CA / Z8