SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: Mariner SWDG
Product form: Preparation

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Soil Surfactant on pelletized domomite carrier

1.3. Details of the supplier of the safety data sheet
Ocean Organics Corp.
P.O. Box 1448
Waldoboro, ME 04572
888-312-0106

1.4. Emergency telephone number
1-207-542-3808

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
Serious eye damage: Category 1

2.2. Label elements
GHS-US labelling

Signal Word: Danger
Hazard pictogram:

Hazard statements: H318 Causes serious eye damage. May cause cancer. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
Prevention:
Avoid Exposure
P280 Wear eye protection/face protection.
Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

2.3. Other hazards
None known

2.4. Unknown acute toxicity (GHS-US)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Substance/Mixture: Preparation
SECTION 4: First aid measures

4.1. Description of first aid measures

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2. Most important symptoms and effects, both acute and delayed: Causes serious eye damage

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Product is not combustible.

Explosion hazard: Product is not explosive.

Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Firefighting instructions: Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Do not dispose of fire-fighting water in the environment. Dispose of in accordance with relevant local regulations. Prevent human exposure to fire, fumes, smoke and products of combustion.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Ventilate area. Remove ignition sources. Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment: Wear Protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Product is used as a soil surfactant and as such, may enter the environment. Product is not expected to pose a hazard to the environment, but large quantity releases should be avoided. Prevent entry into waterways.
6.3. Methods and material for containment and cleaning up

For containment:
Prevent further leakage or spillage, if safe to do so. Absorb spillage to prevent material damage.

Methods for cleaning up:
Absorb spillage to prevent material damage. Use reasonable personal protective equipment as required. Soak up excess with inert absorbent material, or take up mechanically. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections
See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling:
Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions:

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Exposure limits vary with the % quartz dust. Refer to ACGIH and MSHA for current TLV's and TWA's.
Selected Occupational Exposure Limits for airborne dust (effective, June 1, 2015).

1 – Value equivalent to OSHA formulas (29 CFR 1910.1000) and MSHA formulas (1973 TLVs at 30 CFR 56/57.5001)
2 – Value also applies to MSHA Metal / Non-Metal (1973 TLVs at 30 CFR 56/57.5001).
3 – OSHA enforces 0.250 mg/m3 in construction and shipyards (CPL-03-00-007).
4 – Value also applies to OSHA construction (29 CFR 1926.55, Appendix A) and shipyards (29 CFR 1915.1000, Table Z)
5 – MSHA limit = 10 mg/m3
6 – Value also applies to shipyards (29 CFR 1915), marine terminals (29 CFR 1917), and longshoring (29 CFR 1918.)

Components Type Value Form
Particulates not otherwise classified (CAS SEQ250) PEL 5 mg/m3 Respirable Fraction
15mg/m3 Total dust
Calcium Carbonate (CAS 1317-65-3) TWA 5 mg/m3 Respirable fraction 6
15mg/m3 Total dust 5,6

Components Type Value Form
Crystalline Silica (Quartz) (CAS 14808-60-7) TWA 0.3 mg/m3 Total dust. 1,2,3
0.1 mg/m3 Respirable. 1,2,3
2.4 mppcf Respirable. 1,3,4
Particulates not otherwise classified (CAS SEQ250) TWA 5 mg/m3 Respirable fraction. 1
15 mg/m3 Total dust. 1,4,5
50 mppcf Total dust. 1,4
15 mppcf Respirable fraction. 1
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture) TWA 0.15 mg/m3 Total dust. 1
0.05 mg/m3 Respirable. 1
1.2 mppcf Respirable. 1

Components Type Value Form
Crystalline Silica (CAS 14808-60-7) TWA 0.025 mg/m3 Respirable fraction.
Tridymite and Cristobalite (other forms of crystalline TWA 0.025 mg/m3 Respirable fraction.
Mariner SWDG
Safety Data Sheet
Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

silica) (CAS Mixture)

Components Type Value Form
Crystalline Silica (CAS 14808-60-7) TWA 0.05 mg/m³ Respirable dust.
Calcium Carbonate (CAS 1317-65-3) TWA 5 mg/m³ Respirable fraction.
    10 mg/m³ Total dust.

Exposure Guidelines: OSHA PELs, MSHA PELs, and ACGIH TLVs are 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10-hr/day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including “Particulates Not Otherwise Classified,” “Particulates Not Otherwise Regulated,” “Particulates Not Otherwise Specified,” and “inert or Nuisance Dust” are often used interchangeably; however, the user should review each agency’s terminology for differences in meanings.

☐ Appropriate engineering controls: Use ventilation and dust collection to control exposure to below applicable limits.
☐ Recommendations for personal protective measures:
Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels. Exposure levels in excess of allowable exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee workstations.
☐ Any special requirements for PPE:
Eye protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visibly) dusty conditions are present or anticipated.
Skin protection: Use gloves to provide hand protection from drying dust and abrasion. In dusty conditions wear long sleeve shirt. Wash work clothes after each use.
Respiratory Protection: All respirators must be NIOSH-approved for the exposure levels present. (See NIOSH Respirator Selection Guide). The need for respiratory protection should be evaluated by a qualified safety and health professional. Activities that generate dust require the use of an appropriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits. For respirable silica levels that exceed or are likely to exceed an 8 hr Time Weighted Average (TWA) of 0.5 mg/m³, a high efficiency particulate filter respirator must be worn at a minimum; however, if respirable silica levels exceed or are likely to exceed an 8 hr TWA of 5.0 mg/m³ a positive pressure, full face respirator or equivalent is required. Respirator use must comply with applicable MSHA (42 CFR 84) or OSHA (29 CFR 1910.134 ) standards, which include provisions for a user training program, respirator inspection, repair and cleaning, respirator fit testing, medical surveillance and other requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance (physical state, color, etc.): Tan or brown para-spherical solid particles ranging in size from approximately 1/8th inch diameter and smaller.
☐ Odor – Slight Odor
☐ Vapor pressure: Not Applicable
☐ Odor threshold: Not Applicable
☐ Vapor density: Not Applicable
☐ pH: Ranges between 6 and 9 in saturated water solution
☐ Relative density: Ranges between 30 and 65 pounds per cubic foot
☐ Melting point/freezing point: Not Applicable
☐ Solubility: When exposed to liquid water, granules disintegrate into very fine dolomite stone dust and wood flour dust particles.
☐ Initial boiling point and boiling range: Not Applicable
☐ Flash point: None
☐ Evaporation rate: None
☐ Flammability (solid, gas): Not Applicable
☐ Upper/lower flammability or explosive limits: Not Determined for dust from granules. An airborne concentration of 40 grams of dust per cubic meter is often used as the LEL for the wood dust component. For calcium lignosulfonate, the LEL is 0.2 oz / ft³ and the UEL is 3.5 oz. / ft³
SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
Extremely high or low temperatures.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
Carbon Oxides (monoxide (CO), carbon dioxide (CO₂), etc.)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.

Skin contact May cause irritation through mechanical abrasion and drying.

Eye contact May cause irritation through mechanical abrasion.

Ingestion Not likely, due to the form of the product.

Symptoms related to the physical, chemical, and toxicological characteristics: Dust from granules: Discomfort in the chest. Shortness of breath. Coughing.

Information on toxicological effects:

Acute toxicity: Not expected to be acutely toxic.

Skin corrosion/irritation: This product is not expected to be a skin hazard.

Serious eye damage/eye irritation: Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization:

Respiratory sensitization: No respiratory sensitizing effects known.

Skin sensitization: Not known to be a dermal irritant or sensitizer.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity
Crystalline Silica(Quartz) (CAS 14808-60-7) 1 Carcinogenic to humans.
Respirable Tridymite and Cristobalite 1 Carcinogenic to humans.
(other forms of Crystalline) (CAS Mixture)

NTP Report on Carcinogens: Crystalline Silica(Quartz) (CAS 14808-60-7) Known To Be Human Carcinogen.
Reproductive toxicity: Not expected to be a reproductive hazard.

Specific target organ toxicity – single exposure: Not classified.

Specific target organ toxicity – repeated exposure: Respirable crystalline silica: May cause damage to organs (lung) through repeated exposure prolonged or repeated exposure.

Aspiration hazard: Due to the physical form of the product it is not an aspiration hazard.

Chronic effects: Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.

SECTION 12: Ecological information

Soil surfactants may be harmful to aquatic life with short term effects, depending on amount released.

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Mariner SWDG</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Mariner SWDG</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No information available.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The simplest method for disposal is to use the product as intended, as a soil surfactant applied to soils.

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Not hazardous for transport

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not Regulated

RCRA Hazardous Waste Number: Not Listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not Classified

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed

CERCLA Reportable Quantity (RQ): not listed

SARA Hazard categories
Acute Health – Yes
Chronic Health – Yes
Fire hazard – Yes
Pressure hazard – No
Reactivity hazard - No
SARA 313 (TRI Reporting) – Not Regulated
SARA Toxic Chemical (40 CFR 372.65): not listed
SARA 302 (Extremely Hazardous Substance): Not Listed

Clean Air Act (CAA) Section 112 – Hazardous Air Pollutants (HAP’s) List – Not Regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Not Regulated

Additional State or Province regulations may be applicable. For Example:
US. Massachusetts RTK - Substance List
Crystalline Silica(Quartz) (CAS 14808-60-7)
Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. New Jersey Worker and Community Right-to-Know Act
Crystalline Silica(Quartz) (CAS 14808-60-7)
Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. Pennsylvania Worker and Community Right-to-Know Law
Crystalline Silica(Quartz) (CAS 14808-60-7)
Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. Rhode Island RTK
Not regulated.
US. California Proposition 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Crystalline Silica(Quartz) (CAS 14808-60-7)

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date :
Other information :

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating
Health : 0
Flammability : 1
Physical : 0
Personal Protection :

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as Mariner SWDGing any specific property of the product.