

Dritherm

Revision Date: 15/Jul/2014

Revision Number: 1.0

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Dritherm
Chemical Name	Limestone
Company	Dritherm International Inc. 2500 Plaza 5 Harborside Fincial Center Jersey City, NJ 07311 USA Tel: 973-808-2255 Fax: 973-808-2815
Emergency Telephone	973-808-2255
Internet	www.dritherm.com
Email	info@dritherm.com

2. HAZARD IDENTIFICATION

Emergency overview: This is a non-combustible, odorless white powder.

Potential Health Effects

Sensitization	Does not cause sensitization.
Eye contact:	Dust may cause mechanical irritation to eyes.
Eye irritation	Slightly irritating, not classified.
Skin contact:	Dries skin and mucous membranes.
Skin irritation	Possible dry skin and mucous membranes.
Inhalation:	Causes respiratory tract irritation if inhaled.
Carcinogenicity:	This product contains greater than 0.1% crystalline silica which is listed as a Group 1 carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH.

Potential environmental effects Not considered to be harmful to aquatic life.

Environmental Exposure:	This product does not present any particular risk for the environment. Check the appropriate national and local regulations before the product is washed into the sewer.
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Limestone - CAS: 1317-65-3

Wet material on walking surfaces is hazardous.
Avoid dust formation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT(S) / CAS	EC / REACH	EU CLP Classification	%W/W
Limestone CAS: 1317-65-3	215-279-6 Exempt*	Not classified	78.5
Stearic Acid CAS: 57-11-4	200-313-4 Exempt*	Not classified	1 - 5
Crystalline Silica, quartz (impurity) CAS: 14808-60-7	238-878-4 Exempt*	Not classified	0.1 - 5.0

Limestone - CAS: 1317-65-3

Regulation (EC) 1907/2006: REACH
*Exempt as a naturally occurring substance.

Stearic Acid - CAS: 57-11-4

*Contact JM Huber for REACH Regulatory Status

Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

*Exempt. An impurity

4. FIRST AID MEASURES

Eye contact	Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.
Skin contact	Wash skin with soap and water.
Inhalation	Remove person to fresh air.
General Advice	In case of doubt or when symptoms persist, seek medical attention.

5. FIRE-FIGHTING MEASURES

NFPA: Health 1 Flammability 0 Reactivity 0 PPE: E

HMS: Health 1 Flammability 0 Physical hazard 0

Extinguishing media All extinguishing media can be used. Use suitable media appropriate for the surrounding fire.
Non-combustible.

Unsafe extinguishing media: None.

Special exposure hazards: None.

Special protective equipment for firefighters Firefighters should wear protective clothing and use equipment that is suitable for the materials involved in the surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin and eyes.
Wear suitable personal protection equipment.
Avoid inhalation of dust.

Environmental precautions This product is not expected to cause an environmental hazard as a result of its intended use, disposal, or incineration.

Cleanup methods Pick up mechanically and / or by rinsing with water.
Avoid dry sweeping and use a sprinkler system or exhaust ventilation to prevent dust formation.

7. HANDLING AND STORAGE

Handling Avoid dust formation.
Provide appropriate exhaust ventilation in places where dust is formed.
In case of insufficient ventilation, wear suitable respiratory equipment.

Storage Store in a dry area.
Keep containers closed and protect from physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls

Engineering Controls: Use mechanical ventilation (dilution and local exhaust) to control exposure.

**Nuisance particles/
Nuisance dust:** ACGIH: 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction)
OSHA PEL: 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction)
Personal Protective Equipment

- Eye Protection** Safety glasses with side shields.
- Skin and Body Protection:** Use suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure.
- Hand Protection:** Impervious gloves: chemical resistant.
EN 420
- Respiratory Protection:** In case of exposure to high levels of airborne dust, wear a respirator
EN 149, P2 half masks
Use NIOSH/MSHA approved respiratory protection equipment when airborne exposures exceeds established guidelines.
- Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.
- Environmental Exposure:** This product does not present any particular risk for the environment.
Check the appropriate national and local regulations before the product is washed into the sewer.

Control Parameters

Exposure Limit Values:

Limestone - CAS: 1317-65-3

- OSHA - TWA 15 mg/m³ (total dust)
5 mg/m³ (respirable dust)
- ACGIH - TLV-TWA 8-hour --
- NIOSH - TWAs 10 mg/m³
5 mg/m³
- NIOSH - Target Organs skin
respiratory system
eyes
- Canada - Alberta - OEL - TWA 10 mg/m³
- Canada - British Columbia - OEL - TWA 3 mg/m³ (respirable fraction); 10 mg/m³ (total dust)
- Canada - British Columbia - OEL - TWAs 10 mg/m³
3 mg/m³
- Canada - British Columbia - OELs- STELs 20 mg/m³

Stearic Acid - CAS: 57-11-4

- Canada - Alberta - OEL - TWA Not established
- Canada - British Columbia - OEL - TWA Not established
- Canada - Manitoba - OEL - TWA Not established
- Canada - Newfoundland & Labrador - OEL - TWA Not established

Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

- OSHA - TWA (10 mg/m³)/(%SiO₂ + 2) (respirable)
(30 mg/m³)/(%SiO₂ + 2) (Total Dust)
- ACGIH - TLV-TWA 8-hour 0.025 mg/m³ TWA (respirable fraction)
- NIOSH - TWAs 0.05 mg/m³
- NIOSH - Potential Occupational Carcinogens potential occupational carcinogen
- Canada - Alberta - OEL - TWA 0.025 mg/m³ TWA (respirable particulate)
- Canada - British Columbia - OEL - TWA 0.025 mg/m³ TWA (respirable fraction)
- Canada - British Columbia - OEL - Designated Substances ACGIH Category A2 - Suspected Human Carcinogen
IARC Category 1 - Human Carcinogen
- Canada - British Columbia - OEL - TWAs 0.025 mg/m³
- Canada - Manitoba - OEL - TWA 0.025 mg/m³ TWA (respirable fraction)

Canada - Newfoundland & Labrador - 0.025 mg/m³ TWA (respirable fraction)
OEL - TWA
Canada - Nova Scotia - OEL - TWA 0.025 mg/m³ TWA (respirable fraction)
Canada - Prince Edward Island - OEL 0.025 mg/m³ TWA (respirable fraction)
- TWA
Mexico OEL Data - TWA 0.1 mg/m³ TWA (respirable fraction)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Powder
Odor	Odorless
Odor Threshold	No information available
pH:	8.4 - 10.2, (5% water suspension)
Freeze Point	Not applicable
Flash point	Not applicable
Evaporation Rate	Not applicable
Flammability	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Density	2.7 g/cm ³ @ 20°C
Water Solubility	1.3 g/l @ 20° C
Autoignition Temperature	Not applicable
Decomposition Temperature	700-900° C

10. STABILITY AND REACTIVITY

Reactivity	None
Stability	Stable under normal conditions
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to avoid	None
Materials to avoid (Incompatible Materials)	Strong Acids
Hazardous decomposition products	None

11. TOXICOLOGICAL INFORMATION

Toxicological Data Sources	Data from the scientific literature on components are summarized below.
Chronic toxicity	No evidence of mutagenic or reproductive effects.
Carcinogenicity:	This product contains greater than 0.1% crystalline silica which is listed as a Group 1 carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH.
<u>Limestone - CAS: 1317-65-3</u>	
LD50 Oral	6450 mg/kg (rat)
<u>Stearic Acid - CAS: 57-11-4</u>	
Toxicology Data - Selected LD50s and LC50s	
5 g/kg Dermal LD50 Rabbit	
LD50 Dermal	>5000 mg/kg (rabbit)
<u>Crystalline Silica, quartz (impurity) - CAS: 14808-60-7</u>	
IARC - Group 1 (Carcinogenic to Humans) dated 1977	
LD50 Oral	500 mg/kg (rat)
Potential Health Effects	
Sensitization	Does not cause sensitization.
Eye irritation	Slightly irritating, not classified.
Skin irritation	Possible dry skin and mucous membranes.
Inhalation	Contains crystalline silica which can be absorbed into the body by inhalation and may have effects on the lungs, resulting in fibrosis (silicosis).

12. ECOLOGICAL INFORMATION

Ecotoxicity	This product is not expected to be toxic to aquatic life.
Persistence / Degradability	Non-degradable
Bioaccumulative potential	None
Mobility	Inert material.
Other Adverse Effects	None known.

Limestone - CAS: 1317-65-3
Germany - Water Classification (VwVwS) - Annex 1 317 : 0

Stearic Acid - CAS: 57-11-4
Germany - Water Classification (VwVwS) - Annex 1 661 not considered hazardous to water

Limestone - CAS: 1317-65-3

Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

Germany - Water Classification (VwVwS) - Annex 1 849 :0

Germany - Water Classification (VwVwS) - Annex 3 849 : 0

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS: Dispose in accordance with local, state and national regulations.

Limestone - CAS: 1317-65-3

European Waste Catalogue (EWC): 10130414

14. TRANSPORT INFORMATION

UN-No	None.
Proper Shipping Name	Refer to Sections 1 and 3 for product name and chemical name(s)
IMO / IMDG	Not a dangerous substance.
ICAO / IATA	Not a dangerous substance.
RID/ADR	Not a dangerous substance.
D.O.T. Hazard Classification	Non-hazardous material.
General Information	The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.
Other information	Environmental hazards: None known Special precautions for user: Refer to Sections 2, 7, 8, 9, 10

15. REGULATORY INFORMATION

Component(s) of the product are on the following inventory lists:

COMPONENT(S) / CAS	EC / REACH	Australia (AICS)	Canada	China (IECSC)	Japan	Korea (KECL)	New Zealand (NZIoC)	Philippines (PICCS)	USA (TSCA)	Taiwan (ECN)
Limestone CAS: 1317-65-3	215-279-6 Exempt*	Present	Present (NDSL)*	Present	(1)-122	KE-21996	Present	Present	Present	Nominated
Stearic Acid CAS: 57-11-4	200-313-4 Exempt*	Present	Present (DSL)	Present	(2)-609 (ENCS) (2)-608 (ENCS)	KE-26333	Present	Present	Present	Nominated
Crystalline Silica, quartz (impurity) CAS: 14808-60-7	238-878-4 Exempt*	Present	Present (DSL)	Present	(1)-548 (ENCS)	KE-29983	Present	Present	Present	-

Legend
PRESENT : Listed
- : Not Listed
Exempt
Nominated

Limestone - CAS: 1317-65-3

Regulation (EC) 1907/2006: REACH

*Exempt as a naturally occurring substance.

Canada - WHMIS - Classifications of Substances D2A

Stearic Acid - CAS: 57-11-4

*Contact JM Huber for REACH Regulatory Status

Canada - WHMIS - Classifications of Substances Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List 1 %

Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

*Exempt. An impurity

Canada - WHMIS - Classifications of Substances D2A

Canada - WHMIS - Ingredient Disclosure List 1 %

California - Proposition 65 - Carcinogens List (409) carcinogen

EPA:

SARA 311 / 312 HAZARD: None

SARA 313: None

CERCLA RQ: None

Clean Water Act:: The components of this product are not regulated under any of the following sections of the Clean Water Act: Section 307 Priority Pollutants or Section 311 Hazardous Substances. It would be regulated under 304 Water Quality Criteria Substances for suspended solids.

Clean Air Act: The components of this product are not regulated under any of the following sections of the Clean Air Act: Section 112 Hazardous Air Pollutants, Section 112 Statutory Air Pollutants, Section 112 High-Risk Pollutants, Section 112(r) Accidental Release Prevention Substances or Section 602 Ozone Depleting Substance. As a powder product, it would be regulated under Section 109 Criteria Pollutants particulates.

States Right-to-Know (RTK):

California Proposition 65: The product contains the following chemicals at levels known to the State of California to cause cancer:
Crystalline Silica (14808-60-7): carcinogen, initial date 10/1/88 (airborne particles of respirable size)

CONEG The heavy metals defined in CONEG are not intentionally introduced to this product and with respect to heavy metals, lead and arsenic, the level is less than 100 ppm.

CANADA

WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.