



MM[®] ColorJoint Silicone Sealing System

Expansion Joint System

The products listed below along with their corresponding Safety Data Sheets (SDS) are contained in this document:

- ColorJoint Silicone Sealing
- Tremco Silicone

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SAFETY DATA SHEET

SAFETY DATA SHEET

CONTACT INFORMATION

ADDRESS: MM SYSTEMS CORPORATION
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PENDERGRASS, GA 30567
PHONE: Toll Free Domestic: 800-241-3460 International 1-706-824-7500

**For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night**

**Within USA and Canada: 800-424-9300
Outside USA and Canada: +1 703-741-5516**

I. PRODUCT IDENTIFICATION

PRODUCT NAME: **COLORJOINT SILICONE SEALING SYSTEM**
TRADE NAME: Everlastic Silicone Sealant
PRODUCT NO. 70131-67-8
ISSUED: December 31, 1999
FORMULA OF PRIMARY COMPONENTS (STRUCTURAL): Blend of Polydimethyl Siloxane (63148-62-9) and Polydimethyl Siloxane, hydroxy-terminated
PRODUCT CODE: 2132688

II. INGREDIENTS

Silicone Sealant (proprietary formulation): %
Polydimethylsiloxane fluids
Filler (OSHA non-hazardous)
Alkyloximesilane curing agents <5%/wt.

III. PHYSICAL DATA

BOILING POINT >302° F
VAPOR PRESSURE (mmHg at 20° C).... <1 mm Hg
VAPOR DENSITY (air = 1) >1
SOLUBILITY IN WATER Insoluble. Reacts slowly
SPECIFIC GRAVITY (H₂O = 1) Not available
PERCENT VOLATILE BY VOLUME Not available
COLOR AND ODOR Bronze/mild pleasant
PHYSICAL STATE Non-flowing Paste

IV. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (and Method Used)..... 271 °F/TCC
FLAMMABLE L M TS STP Essentially non-volatile
L.F.L. Not available
U.F.L. Not available
EXTINGUISHING MEDIA Water fog/Foam/CO₂/Dry Chemical
SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None/ Cool containers exposed to fire, spray with water spray. For small fires, use CO₂ or dry powder to avoid stock damage.

V. REACTIVITY DATA

STABILITY: Normal conditions
CONDITIONS TO AVOID: Stable/Avoid high heat and humidity/Product cures in presence of moisture
INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID: Oxidizing Material/Moist air/Product cures in presence of moisture
HAZARDOUS DECOMPOSITION PRODUCTS: On combustion, nitrogen oxides, silica, carbon monoxide may be released.
HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.
CONDITIONS TO AVOID: Not applicable

VI. HEALTH HAZARD DATA

ORAL INGESTION: Low oral toxicity/Acute oral tests for product showed no deaths in rats at 5200 mg/kg. (Unpublished Rhone-Poulenc sponsored toxicity study.)

EYE CONTACT: May be irritating to eyes while curing (15 min).

During the 15 minute curing process in moist air, methyl ethylketoxime (2-Butaneone) CAS # (96-29-7) is released to max 3%. It presents no serious toxic risk. Toxin of oxime: Acute oral/rat/LD₅₀ 2500/mg/kg/Acute dermal/rat/LD₅₀>500 mg/kg (Bayer)/after curing, the polymerized product may be considered inert.

SKIN CONTACT: May be irritating to the skin before and during curing.

SKIN ABSORPTION: LOW TOXICITY DERMALLY. No death in rabbits at 2200 mg/kg of product applied dermally. (Unpublished Rhone-Poulenc sponsored toxicity study.)

CARCINOGENICITY: This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as a probably human carcinogen.

INHALATION (TLV OR SUGGESTED CONTROL FIGURE): TLV not established.

EFFECTS FROM INHALATION OVER EXPOSURE: LOW TOXICITY BY INHALATION. No deaths observed in rats when inhaled at dose level of 200 mg/1/hr. May be irritating to respiratory tract before and during curing.

VII. FIRST AID

EYE: Wipe with cotton. Flush eyes thoroughly with large volumes of water for at least 15 minutes. Seek medical assistance, preferably an eye doctor.

SKIN: Scrape off. Wash with soap and a large volume of water. Seek medical assistance if irritation develops or persists.

INHALATION: Remove from area of exposure. See medical assistance.

INGESTION: Induce vomiting and seek medical aid.

VIII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Scrape up into steel drum for recovery or disposal. Use appropriate solvent to clean-up residue

DISPOSAL METHOD: Dispose of in accordance with local, state and federal regulations

IX. SPECIAL PROTECTION INFORMATION

VENTILATION: Provide adequate ventilation when containers are open for use. In confined areas, use local exhaust fan.

RESPIRATORY PROTECTION (SPECIFY TYPE): Use NIOSH/MSHA approved air-purifying respirator with appropriate cartridge as required. Not normally needed with adequate ventilation.

PROTECTIVE CLOTHING: Work uniform, gloves.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Maintain eye wash fountain and safety shower in the work area.

X. SPECIAL PRECAUTIONS OR OTHER COMMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in cool, dry place in tightly closed containers. Keep containers closed when stored and when not being used to avoid premature curing. Avoid contact with moist air. Rotate stock. Products shelf life is approximately 9 months at normal temperature/humidity.

OTHER PRECAUTIONS: Avoid breathing vapors. Avoid direct or prolonged contact with skin and eyes. DO NOT rub the eyes with soiled hands. Wash hands thoroughly after handling. Do not eat, drink or smoke in the work area.

DOT: Non hazardous

SAFETY DATA SHEET

1. Identification

Material name: SPECTREM 1 GRAY
Material: 946853 323

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S Sealants
3735 Green Road
Cleveland OH 44122
US

Contact person: EH&S Department
Telephone: 216-292-5000
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Carcinogenicity Category 2

Unknown toxicity - Health

Acute toxicity, oral	17.34 %
Acute toxicity, dermal	18.46 %
Acute toxicity, inhalation, vapor	99.92 %
Acute toxicity, inhalation, dust or mist	99.93 %

Unknown toxicity - Environment

Acute hazards to the aquatic environment	42.56 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Suspected of causing cancer.

Precautionary Statement:

- Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
- Response:** If exposed or concerned: Get medical advice/attention.
- Storage:** Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification:** None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Calcium carbonate	471-34-1	30 - 60%
Titanium dioxide	13463-67-7	1 - 5%
Stearic acid	57-11-4	0.5 - 1.5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- Ingestion:** Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.
- Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

- Symptoms:** May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
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Calcium carbonate - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Stearic acid	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (2011)

Chemical name	type	Exposure Limit Values	Source
Calcium carbonate - Total dust.	STEL	20 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	Wear suitable protective clothing.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:	solid
Form:	Paste
Color:	Gray
Odor:	Mild pungent
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	No data available.
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.35
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.

Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.

Incompatible Materials: Epoxides. Avoid contact with acids and oxidizing substances. Isocyanates.

Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Skin Contact: May be harmful in contact with skin.

Eye contact: Eye contact is possible and should be avoided.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product: No data available.

Dermal Product: ATEmix: 4,189.49 mg/kg

Inhalation Product: No data available.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Calcium carbonate in vivo (Rabbit, 24 - 72 hrs): Not irritating

Titanium dioxide in vivo (Rabbit, 24 - 72 hrs): Not irritating

Stearic acid in vivo (Rabbit, 27 - 72 hrs): Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**Calcium carbonate LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): > 56,000 mg/l MortalityTitanium dioxide LC 50 (Mummichog (*Fundulus heteroclitus*), 96 h): > 1,000 mg/l Mortality**Aquatic Invertebrates****Product:** No data available.**Specified substance(s):**Titanium dioxide EC 50 (Water flea (*Daphnia magna*), 48 h): > 1,000 mg/l Intoxication**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**Titanium dioxide LC 0 (*Coregonus autumnalis migratorius* G., 30 d): 3 mg/l experimental result**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative Potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.

Specified substance(s):
Stearic acid Log Kow: 8.23

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Cyclohexylamine	100 lbs.
Toluene	1000 lbs.
2-Butylamine	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Cyclohexylamine	10000 lbs.	10000 lbs.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Cyclohexylamine	100 lbs.
Toluene	1000 lbs.
2-Butylamine	1000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Cyclohexylamine	500lbs
Calcium carbonate	500 lbs
Titanium dioxide	500 lbs
Stearic acid	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Cyclohexylamine	15000 lbs

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u>
Calcium carbonate
Titanium dioxide

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Calcium carbonate
Titanium dioxide
Cyclohexylamine

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Calcium carbonate
Titanium dioxide

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

**Regulatory VOC (less water
and exempt solvent):** 1 g/l
VOC Method 310: 0.08 %

Inventory Status:

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	All components in this product are listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date: 11/03/2015
Version #: 1.0
Further Information: No data available.

Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

SAFETY DATA SHEET

1. Identification

Material name: SPECTREM 3 GRAY - 30 CTG
Material: 998853 323

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S Sealants
3735 Green Road
Cleveland OH 44122
US

Contact person:	EH&S Department
Telephone:	216-292-5000
Emergency telephone number:	1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Respiratory sensitizer	Category 1
Carcinogenicity	Category 1A
Toxic to reproduction	Category 1B

Unknown toxicity - Health

Acute toxicity, oral	1.53 %
Acute toxicity, dermal	3.98 %
Acute toxicity, inhalation, vapor	99.78 %
Acute toxicity, inhalation, dust or mist	99.88 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 1
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Unknown toxicity - Environment

Acute hazards to the aquatic environment	45.54 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word:	Danger
Hazard Statement:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. May damage fertility or the unborn child. Very toxic to aquatic life.
Precautionary Statement:	
Prevention:	Avoid breathing dust/fume/gas/mist/vapors/spray. [In case of inadequate ventilation] wear respiratory protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.
Response:	If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If exposed or concerned: Get medical advice/attention. Collect spillage.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Calcium carbonate	471-34-1	40 - 70%
Butyl benzyl phthalate	85-68-7	7 - 13%
Calcium oxide	1305-78-8	1 - 5%
Titanium dioxide	13463-67-7	1 - 5%
Stearic acid	57-11-4	0.5 - 1.5%
Tosyl isocyanate	4083-64-1	0.1 - 1%
Hydrotreated heavy naphthenic distillate	64742-52-5	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
Inhalation:	Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
Skin Contact:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. Evacuate area. See Section 8 of the SDS for Personal Protective Equipment. Keep upwind. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Calcium carbonate - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium oxide	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Stearic acid	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Hydrotreated heavy naphthenic distillate - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Hydrotreated heavy naphthenic distillate	PEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Hydrotreated heavy naphthenic distillate - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Calcium carbonate - Total dust.	STEL	20 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Diisodecyl phthalate	TWAEV	5 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium oxide	TWA	2 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium oxide	TWAEV	2 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium oxide	TWA	2 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Vinyltrimethoxysilane	STEL	10 ppm 60 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)

Hydrotreated heavy naphthenic distillate - Mist.	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Hydrotreated heavy naphthenic distillate - Mist.	TWAEV	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Hydrotreated heavy naphthenic distillate - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

9. Physical and chemical properties

Appearance

Physical state:	solid
Form:	Paste
Color:	Gray
Odor:	Mild sharp
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	No data available.
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.39
Solubility(ies)	
Solubility in water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Alcohols. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation.
Eye contact:	Eye contact is possible and should be avoided.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral	
Product:	ATEmix: 71,610.15 mg/kg
Dermal	
Product:	ATEmix: 4,667.55 mg/kg
Inhalation	
Product:	No data available.

Repeated dose toxicity	
Product:	No data available.

Skin Corrosion/Irritation	
Product:	No data available.

Serious Eye Damage/Eye Irritation	
Product:	No data available.

Specified substance(s):	
Calcium carbonate	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Butyl benzyl phthalate	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Calcium oxide	in vivo (Rabbit, 1 hrs): Irritating
Titanium dioxide	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Stearic acid	in vivo (Rabbit, 27 - 72 hrs): Not irritating
Hydrotreated heavy naphthenic distillate	in vivo (Rabbit, 24 hrs): Not irritating

Respiratory or Skin Sensitization	
Product:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization by inhalation.

Carcinogenicity**Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

Hydrotreated heavy naphthenic distillate Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Hydrotreated heavy naphthenic distillate Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** May damage fertility or the unborn child.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**Calcium carbonate LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): > 56,000 mg/l

	Mortality
Butyl benzyl phthalate	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 96 h): 1.39 - 3.88 mg/l Mortality
Titanium dioxide	LC 50 (Mummichog (<i>Fundulus heteroclitus</i>), 96 h): > 1,000 mg/l Mortality
Aquatic Invertebrates	
Product:	No data available.
Specified substance(s):	
Butyl benzyl phthalate	EC 50 (Water flea (<i>Daphnia magna</i>), 48 h): > 10 mg/l Intoxication EC 50 (Opossum shrimp (<i>Americamysis bahia</i>), 48 h): > 0.9 mg/l Mortality EC 50 (Water flea (<i>Daphnia magna</i>), 24 h): > 10 mg/l Intoxication EC 50 (Water flea (<i>Daphnia magna</i>), 21 d): > 0.76 mg/l Intoxication EC 50 (Water flea (<i>Daphnia magna</i>), 14 d): > 0.76 mg/l Intoxication
Titanium dioxide	EC 50 (Water flea (<i>Daphnia magna</i>), 48 h): > 1,000 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish	
Product:	No data available.
Specified substance(s):	
Butyl benzyl phthalate	NOAEL (<i>Pimephales promelas</i> , 126 d): 64.6 - 67.5 µg/l experimental result
Calcium oxide	NOAEL (<i>Oncorhynchus mykiss</i> , 60 d): 307 mg/l interpreted
Titanium dioxide	LC 0 (<i>Coregonus autumnalis migratorius</i> G., 30 d): 3 mg/l experimental result
Hydrotreated heavy naphthenic distillate	NOAEL (<i>Oncorhynchus mykiss</i> , 14 d): >= 1,000 mg/l QSAR

Aquatic Invertebrates	
Product:	No data available.

Toxicity to Aquatic Plants	
Product:	No data available.

Persistence and Degradability

Biodegradation	
Product:	No data available.

BOD/COD Ratio	
Product:	No data available.

**Bioaccumulative Potential
Bioconcentration Factor (BCF)**

Product:	No data available.
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Specified substance(s):

Butyl benzyl phthalate Bluegill (*Lepomis macrochirus*), Bioconcentration Factor (BCF): 772 (Flow through)

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Butyl benzyl phthalate Log Kow: 4.91

Stearic acid Log Kow: 8.23

Mobility in Soil: No data available.

Other Adverse Effects: Very toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butyl Benzyl Phthalate), 9, PG III, MARINE POLLUTANT

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butyl benzyl phthalate	100 lbs.
Dibutyl phthalate	10 lbs.
Methanol	5000 lbs.
Cyclohexane	1000 lbs.
Acetic acid	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butyl benzyl phthalate	100 lbs.
Diisodecyl phthalate	
Dibutyl phthalate	10 lbs.
Diisodecyl phthalate (mixed Is)	
Methanol	5000 lbs.
Cyclohexane	1000 lbs.
Acetic acid	5000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Calcium carbonate	500 lbs
Butyl benzyl phthalate	500 lbs
Calcium oxide	500 lbs
Titanium dioxide	500 lbs
Stearic acid	500 lbs
Tosyl isocyanate	500 lbs
Hydrotreated heavy naphthenic distillate	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Calcium carbonate
Butyl benzyl phthalate
Calcium oxide
Titanium dioxide
Hydrotreated heavy naphthenic distillate

US. Massachusetts RTK - Substance List

Chemical Identity

Calcium carbonate
Butyl benzyl phthalate
Calcium oxide
Titanium dioxide
Crystalline Silica (Quartz)/ Silica Sand

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Calcium carbonate
Butyl benzyl phthalate
Diisodecyl phthalate
Calcium oxide
Titanium dioxide

US. Rhode Island RTK

Chemical Identity

Butyl benzyl phthalate
Diisodecyl phthalate

Other Regulations:

Regulatory VOC (less water and exempt solvent):	13 g/l
VOC Method 310:	0.90 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date:	10/19/2015
Version #:	1.0
Further Information:	No data available.
Disclaimer:	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.