

1. Identification of Substance:

Product Name: GreenSil 100

Product Use: Silicone Roof Coating

Field of Application: building and metal industry

Identified uses: Industrial/Professional use

Company Details: Green Shield Products

Address:

40 Cypress Creek Parkway #338

Houston, Texas 77090

Telephone: (877) 476-7453

24-Hr. Emergency Phone Number:

CHEMTREC (800) 424-9300

2. Hazards Identification

Classification:

Acute aquatic toxicity - Category 3
Carcinogenicity - Category 2
Chronic aquatic toxicity - Category 3
Eye Irritation - Category 2A
Flammable Liquids - Category 4
Skin Irritation - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 1

Pictograms



Signal Word: Danger

Hazardous Statements - Physical

H227 - Combustible Liquid

Hazardous Statements - Health

H351 - Suspected of causing cancer.

H319 - Causes serious eye irritation

H316 - Causes mild skin irritation

H372 - Causes damage to organs through prolonged or repeated exposure.

Hazardous Statements - Environmental

H412 - Harmful to aquatic life with long lasting effects







Precautionary Statements - General

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.

Precautionary Statements - Prevention

- P273 Avoid release to the environment.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P264 Wash thoroughly after handling.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P270 Do not eat, drink or smoke when using this product.

Precautionary Statements - Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention.

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.

P370 + P378 - In case of fire: Use dry chemical, carbon dioxide, foam to extinguish.

For detailed information, see Section-5 (Fire Fighting Measures)

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P314 - Get Medical advice/attention if you feel unwell.

Precautionary Statements - Storage

P405 - Store locked up.

P403 - Store in a well-ventilated place.

Precautionary Statements - Disposal

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P501 - Dispose of contents/ container to an approved waste disposal plant.







3. Composition/information on ingredients:

Chemical Name	CAS number	Weight Concentration %
SILICA, CRYSTALLINE	0014808-60-7	19% - 36%
SILOXANES AND SILICONES, DI-ME, 3- HYDROXYPROPYL ME, ETHOXYLATED	0068937-54-2	10% - 40%
TITANIUM DIOXIDE	0013463-67-7	8% - 14%
METHYLTRIS(METHYLETHYLKETOXIME)SILANE	0022984-54-9	6% - 12%
MEDIUM MINERAL SPIRITS	0064742-88-7	2% - 4%
0ISOPARAFFINIC PETROLEUM DISTILLATE 2% -	064742-47-8	4%
-BUTANONE OXIME	0000096-29-7 2	Trace

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

4. First Aid Measures:

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a

POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the

POISON CENTER/doctor.

If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.

Eliminate all ignition sources if safe to do so.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before re-use or discard.

IF exposed or concerned: Get medical advice/attention.

Ingestion

IF exposed or concerned: Get medical advice/attention.

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Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.







5. Firefighting measures

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

If water is used, use very large quantities of cold water.

Specific Hazards in Case of Fire

Vapors may accumulate and travel to ignition sources distant from the handling site; flash fire can occur. Excessive pressure or temperature may cause explosive rupture of containers.

Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may rupture them.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to **protect personnel.** Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required. Care should always be exercised in dust/mist areas.

6. Accidental release measures

Emergency Procedure

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment

Appropriate dust or face mask to eliminate breathing foam dust particulates.

Personal Precautions

Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.







Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Soak up material with absorbent and shovel into a chemical waste container. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

7. Handling and Storage

Information for Safe Handling: Avoid contact with skin or inhalation.

Storage Requirements: Store in dry, well ventilated area. Avoid contact with moisture. Keep containers tightly closed. Store between 60 F-100 F. Material may settle.

Regulatory Requirements: Store according to all local, state, and federal regulations. Avoid contact with skin or eyes. Immediately report spills or leaks. Use grounded or spark-resistant tools and equipment.

Storage Requirements: Store containers in a dry, well ventilated area. Keep containers tightly closed and prevent moisture contamination. Do not re-seal the container if contamination is suspected. Store between 60 F and 100 F. Avoid electrical (static) discharge.

8. Exposure Controls and Personal Protection:

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash contaminated clothing before re-wearing.

Respiratory Protection

If airborne concentrations exceed or are expected to exceed the TLV, use MSHA/NIOSH approved positive pressure supplied pressure supplied air respiratory with a full face piece or an air supplied hood. For emergencies, use a positive pressure self-contained breathing apparatus.







Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name / CAS No.	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA Tables (21, 22, 23)	NIOSH Tables (21, 22, 23)
ISOPARAFFINIC PETROLEUM DISTILLATE	500	Not Established	Not Established	
MEDIUM MINERAL SPIRITS				
SILICA, CRYSTALLINE	a	[10 mg/m3 percent SiO2+2 / 250 percent SiO2+5 mppcf]; [30 mg/m3 percent SiO2+2];	[1,3]; [3];	
TITANIUM DIOXIDE	Not Established	N5	1	b

Chemical Name / CAS No.	NIOSH TWA (mg/m3)	NIOSH Carcinogen)	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)
ISOPARAFFINIC PETROLEUM DISTILLATE		Not Established	(L)[N159](L) [N800]	[(L)[N159](L) [N800]]; [5 (l) [N159]5 (l) [N800]];
MEDIUM MINERAL SPIRITS			(L)[N159](L) [N800]	[(L)[N159](L) [N800]]; [5 (l) [N159]5 (l) [N800]];
SILICA, CRYSTALLINE	0.05e	1	0.025 (R)	0.025 (R)
TITANIUM DIOXIDE		1	10	10

9. Physical and Chemical Properties:

Density 11.00 b/gal Specific Gravity 1.32 VOC Regulatory 43g/I VOC Part A & B Combined Appearance N.A.

Odor Threshold Pigmented Viscous Liquid N.A.

Odor Description Chemical pH N.A. Water Solubility N.A. Flammability N/A





SAFETY DATA SHEET

Safety Data



Flash Point Symbol

Flash Point

77 °C

Viscosity

N.A.

Lower Explosion Level

Upper Explosion Level

Vapor Pressure

N.A.

N.A.

Vapor Density Heavier than air

Freezing Point

Melting Point

Low Boiling Point

High Boiling Point

Auto Ignition Temp

Decomposition Pt

N.A.

N.A.

N.A.

N.A.

Evaporation Rate Slower than ether

Coefficient Water/Oil N.A.

10. Stability and Reactivity:

Material is stable at standard temperature and pressure.

Conditions to Avoid

Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause liberation of

carbon dioxide and buildup of pressure.

Hazardous Reactions/Polymerization

Will not occur under normal conditions but under high temperatures in the presence of alkalis, tertiary amines, and metal compounds will accelerate polymerization. Possible evolution of carbon dioxide gas may rupture closed containers.

Incompatible Materials

Strong acids and isocyanates.

Hazardous Decomposition Products

Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in a limited air supply

11. Toxicological Information:

Skin Corrosion/Irritation

Causes severe irritation with pain, severe excess redness and swelling with chemical burns, blister formation, and possible tissue destruction. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact.

Causes mild skin irritation







Serious Eye Damage/Irritation

Causes irritation experienced as pain, with excess blinking and tear production, and as seen extreme redness and swelling of the eye and chemical burns of the eye. Severe eye damage may cause blindness. Causes serious eye irritation

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

The vapour is mildly irritating to the eyes.

Respiratory/Skin Sensitization

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

The substance defats the skin, which may cause dryness or cracking.

Carcinogenicity

Suspected of causing cancer.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

May cause effects on the central nervous system.

Specific Target Organ Toxicity - Repeated Exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard

No data available.

Acute Toxicity

Oral: Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

If swallowed, can easily enter the airways and could result in aspiration pneumonitis.

If swallowed, can easily enter the airways and could result in aspiration pneumonitis. Inhalation of high concentrations may cause dizziness, anesthesia, unconsciousness.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

The substance can be absorbed into the body by inhalation of its vapour and by ingestion.

Chronic Exposure

0014808-60-7 SILICA, CRYSTALLINE

Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.







Potential Health Effects - Miscellaneous

0013463-67-7 TITANIUM DIOXIDE

Is an IARC, NTP or OSHA carcinogen. In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m3 respirable titanium dust. Analysis of the titanium dioxide concentrations in the rat's lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m3 level are not relevant to the workplace. Results of a DuPont epidemiology study showed that employees who had been exposed to Titanium Dioxide were at no greater risk of developing lung cancer than were employees who had not been exposed to Titanium dioxide. No pulmonary fibrosis was found in any of the employees and no association was observed between Titanium dioxide exposure and chronic respiratory disease or x-ray abnormalities. Based on the results of this study DuPont concludes that titanium dioxide will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

0014808-60-7 SILICA, CRYSTALLINE

Is an IARC, NTP or OSHA carcinogen. Repeated overexposure to crystalline silica may lead to x-ray changes and chronic lung disease.

Inhalation of high dust concentrations may cause: breathing difficulties, lung injury. WARNING: This chemical is known to the State of California to cause cancer.

0064742-88-7 MEDIUM MINERAL SPIRITS

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. This substance may cause damage to any of the following organs/systems:

blood, central nervous system, eyes, kidneys, liver, lungs, reproductive system, skin. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

12. Ecological Information:

Toxicity

No data available.

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Persistence and Degradability

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Bioaccumulative Potential

No data available.

Mobility in Soil

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Floats on water. Contains volatile constituents. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.





SAFETY DATA SHEET

Safety Data



Other Adverse Effects

No data available.

Bio-accumulative Potential

No data available.

13. Disposal considerations

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine a the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

14. Transport Information

U.S. DOT Information

Not regulated

IMDG Information

Not regulated.

IATA Information

Not regulated.

15. Regulatory Information:

CAS	Chemical Name t	% By Weight	Regulation List
0014808-60-7	SILICA, CRYSTALLINE	19% - 36%	DSL,SARA312,TSCA,CA_ Prop65 - California Proposition 65
0068937-54-2	SILOXANES AND SILICONES, DI-ME, 3- HYDROXYPROPYL ME, ETHOX- YLATED	10% - 40%	DSL,SARA312,TSCA
0013463-67-7	TITANIUM DIOXIDE	8% - 14%	DSL,SARA312,TSCA,CA_ Prop65 - California Proposition 65
0022984-54-9	METHYLTRIS(METHYLETHYL- KETOXIME)SILANE	6% - 12%	DSL,SARA312,VOC,TSCA
0064742-88-7	MEDIUM MINERAL SPIRITS	2% - 4%	DSL,SARA312,VOC,TSCA
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	2% - 4%	DSL,SARA312,VOC,TSCA
0000096-29-7	2-BUTANONE OXIME	Trace	DSL,SARA312,VOC,TSCA







16. Other Information:

OTHER INFORMATION

* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for

the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases,

our system will say UN GHS.

GLOSSARY

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; CA Prop65- California Proposition 65; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; ECEquivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMISWorkplace Hazardous Materials Information System.

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

Safety Data Sheet issued by Product Safety Department

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