

Duro-Shield™ Silicone

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

Product Name: Duro-Shield™ Silicone
Version: 3
Identifier 1: Silicone Roof Coating
Identifier 2: 4194, 4195, 4196, 1G, 5G, 55G
Product Type: Mixture
Product Use: Reflective Roof Coating

Company Information: Duro-Last®, Inc.
 525 W Morley Dr.
 Saginaw, MI 48601
 Phone: (800) 248-0280
 Website: www.duro-last.com

24 Hour Emergency Contact: INFOTRAC
 1-800-535-5053 (US & Canada)
 1-352-323-3500 (International)

SECTION 2

HAZARD(S) IDENTIFICATION

Hazard Classification: **Health Hazards**
 Carcinogenicity, Category 1A

Pictogram(s):



Signal Word: DANGER

Hazard Statements: H350 - May cause cancer.

Precautionary Statements:

Prevention	
P201	- Obtain special instructions before use.
P202	- Do not handle until all safety precautions have been read and understood.
P281	- Use personal protective equipment as required.
Response	
P308+P315	- IF EXPOSED OR CONCERNED: Get medical advice/attention.
Storage	
P405	- Store locked up.
Disposal	
P501	- Dispose of contents/container in accordance with federal, state, and local regulations.

SECTION 3

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Chemical Name	CAS Number	Concentration (%)
Dimethyl Siloxane, Hydroxyl-Terminated	70131-67-8	50.00 – 60.00%
Silica, Quartz (Unbound)*	14808-60-7	30.00 – 40.00%
Titanium Dioxide (Unbound)*	13463-67-7	0.00 – 10.00%
Vinyltrimethoxysilane	2768-02-7	0.00 – 10.00%
Methyl Tris (MEKO) Silane	22984-54-9	0.00 – 10.00%

*The hazards of the listed Titanium Dioxide and Silica, Quartz are for their powder unbound forms. When the chemicals are used in applications such as textures or coatings, the chemicals become bound and are not in their hazardous forms.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4

FIRST-AID MEASURES

Eye Contact:	Immediately flush eye(s) with plenty of water, occasionally lifting the upper and lower eyelids and continue to rinse for at least 15-20 minutes. Remove contact lenses, if present, and easy to do so. Get medical attention if irritation persists.
Inhalation:	Move to fresh air and seek medical attention if breathing is affected. Consult a physician after significant exposure, or feeling unwell.
Skin Contact:	Wash off with soap and plenty of water after use. Contact a physician if rash or severe irritation develops.
Ingestion:	Clean mouth with water and drink plenty of water afterwards. Do NOT induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recover position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
Most Important Symptoms and Effects, Both Acute and Delayed:	No information available.
Protection of First-Aiders:	No action shall be taken involving any personal risk or without suitable training. Use personal protective equipment as required (see Section 8). Show this Safety Data Sheet to the doctor in attendance.
Notes to Physician:	Treat symptomatically.

SECTION 5

FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	Water.
Special Protective Equipment for Fire-Fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) pressure-demand, MSHA/NIOSH (approved or equivalent).

SECTION 6

ACCIDENTAL RELEASE MEASURES

Handling Precautions:	Use personal protective equipment as required. Deny access to unprotected persons. Ensure adequate ventilation, especially in confined areas.
Environmental Precautions:	See Section 12 for additional ecological information.
Cleanup:	Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Pick up the absorbent material and transfer to properly labeled containers for disposal according to federal, state, and local laws and regulations (See Section 13).
Regulatory Requirements:	Follow applicable OSHA regulations (29 CFR 1940.120).

SECTION 7

HANDLING AND STORAGE

Handling Precautions:	Handle in accordance with good industrial hygiene and safety practice.
Storage Requirements:	Keep containers tightly closed in a dry, cool and well-ventilated place. No known incompatible materials based on information supplied.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	Basis	Value	Exposure Limit(s)* / Form of Exposure
Silica, Quartz (Unbound)**	OSHA	TWA	50 µg/m ³ excludes construction work, agricultural operations, and exposures that result from the processing of sportive clays (vacated); 0.10 mg/m ³ respirable dust; (250)/(%SiO ₂ +5) mppcf TWA respirable fraction; (10)/%SiO ₂ +2) mg/m ³ TWA respirable fraction
	ACGIH	TLV	.025 mg/m ³ respirable particulate matter
	NIOSH	IDLH	50 mg/m ³ respirable dust
	NIOSH	TWA	0.05 mg/m ³ respirable dust
Titanium Dioxide (Unbound)**	ACGIH	TLV	10 mg/m ³ total dust
	OSHA	TWA	15 mg/m ³ total dust (vacated); 10 mg/m ³ total dust
	NIOSH	IDLH	5,000 mg/m ³
	NIOSH	TWA	2.4 mg/m ³ CIB 63 fine; 0.3 mg/m ³ CIB 63 ultrafine, including engineered nanoscale

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this Safety Data Sheet.

**The hazards of the listed Titanium Dioxide and Silica, Quartz are for their powder unbound forms. When the chemicals are used in applications such as textures or coatings, the chemicals become bound and are not in their hazardous form.

Engineering Measures:	This product is for exterior use only. Do not use indoors. Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Worksites should also have accessible showers and eyewash stations in case of emergency.
------------------------------	---

Hygiene Measures:	Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Remove respiratory and skin/eye protection only after vapors have been cleared from the area. Remove contaminated clothing and protective equipment before entering eating areas.
--------------------------	---

Personal Protective Equipment:**Respiratory Protection**

Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand Protection

Gloves complying with an approved standard should be worn if a risk assessment indicates this is necessary.

Eye Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	Liquid	Self-Ignition Temperature:	N/A
Color:	N/A	VOC:	N/A
Odor	Peppermint	Vapor Pressure:	N/A
pH:	N/A	Volatile:	N/A
Flash Point:	>100°C >212°F	Flammability Limit:	Non-Flammable
Melting Point:	N/A	Density:	11.5
Freezing Point:	N/A	Solubility:	N/A
Boiling Point:	>100°C >212°F	Viscosity:	N/A

SECTION 10**STABILITY AND REACTIVITY**

Hazardous Decomposition or Incompatible Products:	None established.
Chemical Stability:	The product is chemically stable under recommended storage conditions.
Possibility of Hazardous Reactions:	None under normal processing.
Conditions to avoid:	Extremes of temperature and direct sunlight, as these conditions could lead to pressure build-up in a sealed container.

SECTION 11**TOXICOLOGICAL INFORMATION****Toxicity**

Hazardous Ingredient Name	Result	Species	Dose/Exposure	Acute or Chronic
Dimethyl Siloxane, Hydroxy-Terminated	LD ₅₀ Oral	Rat	>15,400 mg/kg	N/A
	LD ₅₀ Dermal	Rabbit	>16 mL/kg	
	LC ₅₀ Inhalation	Rat	>8,750 mg/m ³ (7 Hours)	
Vinyltrimethoxysilane	LD ₅₀ Oral	Rat	=7,340 µL/kg	N/A
	LD ₅₀ Dermal	Rabbit	=3,360 µL/kg	
Titanium Dioxide (Unbound)*	LD ₅₀ Oral	Rat	>10,000 mg/kg	Chronic Inhalation

*The hazards of the listed Titanium Dioxide are for its powder unbound form. When the chemical is used in applications such as textures or coatings, the chemical becomes bound and is not in its hazardous form.

Likely Routes of Exposure: No data available.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

Sensitization: No data available.

Germ Cell Mutagenicity: No data available.

Carcinogenicity: The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Silica, Quartz (14808-60-7)	A2	Group 1	Known	X
Titanium Dioxide (13463-67-7)	-	Group 2B	-	X

Reproductive Toxicity: No information available.

STOT – Single Exposure: No information available.

STOT – Repeated Exposure: No information available.

Aspiration Hazard: No information available.

Numerical Measures of Toxicity:

ATEmix (Oral): 14,434.30

ATEmix (Dermal): 14,869.73

The values listed above are calculated based on Chapter 3.1 of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) document.

SECTION 12

ECOLOGICAL INFORMATION

Environmental Hazard: This product mixture is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity: 12% of the mixture consists of components of unknown hazards to the aquatic environment.

Other Information: Do not empty into drains; dispose of this material and its container in accordance with federal, state, and local regulations. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal Methods: **Waste from Residues**
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any federal, state, and local requirements.

Contaminated Packaging
Do not reuse container.

SECTION 14

TRANSPORT INFORMATION

Other Information: Non-regulated, not classified as dangerous.

SECTION 15

REGULATORY INFORMATION

TSCA List: Silica, Quartz is in this product and is listed on the TSCA Inventory.

CERCLA Reportable Quantity: This material does not contain any components with a CERCLA RQ.

SARA 304 Reportable Quantity: This material does not contain any components with a section 304 EHS RQ.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act: This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

California Prop 65: **WARNING:** This product can expose you to chemicals including Titanium Dioxide and Silica, Quartz, which are known to the State of California to cause [cancer](#). For more information, go to www.P65Warnings.ca.gov.

US State Right-to-Know Regulations:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Silica, Quartz (14808-60-7)	X	X	X
Titanium Dioxide (13463-67-7)	X	X	X

SECTION 16

OTHER INFORMATION

Previous Editions: First Published: 12/04/2018
Revision Dates: 03/29/2019; 03/15/2021

Further Information: This SDS was prepared in accordance with OSHA regulatory standards for Toxic and Hazardous Substances: 29 CFR 1910.1200.

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However Duro-Last, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although Duro-Last, Inc. has described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.