

SAFETY DATA SHEET

1. Identification

Product identifier Duro-Shield - Silicone Reinforced Sealant

Other means of identification

Product code 425405

Recommended use Architectural coating and waterproofing.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Distributed by Holcim Solutions and Products US, LLC

Address 525 W Morley Dr.
Saginaw, MI 48601

Duro-Last® is a division of Holcim Solutions and Products US, LLC

Website www.duro-last.com

Telephone Number

Emergency Telephone Number INFOTRAC (24 hours):

1-800-535-5053 (US & Canada)

1-352-323-3500 (International)

2. Hazard(s) identification

Physical hazards Flammable liquids Category 4

Health hazards Serious eye damage/eye irritation Category 2

Sensitization, skin Category 1

Specific target organ toxicity, repeated exposure (oral) Category 2 (Blood, Cardiovascular system)

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Combustible liquid. May cause an allergic skin reaction. Causes serious eye irritation. May cause damage to organs (Blood, Cardiovascular system) through prolonged or repeated exposure by ingestion.

Precautionary statement

Prevention Keep away from flames and hot surfaces. - No smoking. Do not breathe mist/vapors. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin: Wash with plenty of water. Get medical advice/attention if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use water fog, foam, dry chemical powder, carbon dioxide to extinguish.

Storage Store in a well-ventilated place. Keep cool.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	None known.
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Supplemental information	None.
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3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Titanium Dioxide	13463-67-7	5 - 10
Methyl-tris (2-butanonoxime)silane	22984-54-9	1 - 5
Silicon dioxide, crystalline silica-free	7631-86-9	1 - 5
Bis(aminopropyltrimethoxysilyl)amine	82985-35-1	0.1 - 1
Zirconium dioxide	1314-23-4	0.1 - 1

Composition comments All concentrations are in percent by weight unless otherwise indicated.
Components not listed are either non-hazardous or are below reportable limits.
Any concentration shown as a range is to protect confidentiality or is due to batch variation.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed such as: Carbon oxides. Silicon oxides. Metal oxides.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Avoid discharge into drains, water courses or onto the ground.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will sediment in water systems.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Persons susceptible to allergic reactions should not handle this product.

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

Conditions for safe storage, including any incompatibilities

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA Components	Type	Value	
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)	TWA	80 mg/m3	
US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)			
Components	Type	Value	Form
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
Zirconium dioxide (CAS 1314-23-4)	PEL	5 mg/m3	
US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)			
Components	Type	Value	Form
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		20 mppcf	
Zirconium dioxide (CAS 1314-23-4)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
US. ACGIH Threshold Limit Values (TLV)			
Components	Type	Value	Form
Titanium Dioxide (CAS 13463-67-7)	TWA	2.5 mg/m3	Respirable finescale particles
		0.2 mg/m3	Respirable nanoscale particles
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)	IDLH	3000 mg/m3
Titanium Dioxide (CAS 13463-67-7)	IDLH	5000 mg/m3
Zirconium dioxide (CAS 1314-23-4)	IDLH	25 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)	TWA	6 mg/m3
Zirconium dioxide (CAS 1314-23-4)	STEL	10 mg/m3
	TWA	5 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear approved chemical safety goggles.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Examples of preferred glove barrier materials include: Nitrile. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Skin protection**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece. Appropriate respirator selection should be made by a qualified professional.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Liquid.

Color White.

Odor Mild solvent.

Odor threshold Not available.

pH Not applicable as the product is insoluble in water.

Melting point/freezing point Not determined.

Initial boiling point and boiling range Not determined.

Flash point 169 °F (76.11 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not determined.

Explosive limit - upper (%) Not determined.

Vapor pressure

Not determined.

Vapor density	Not determined.
Relative density	4 (Water=1) (77 °F (25 °C))
Solubility(ies)	
Solubility (water)	Insoluble (< 0.1%)
Partition coefficient (n-octanol/water)	Not applicable, product is a mixture.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined.
Viscosity	30000 cps (77 °F (25 °C))
Other information	Solids content: 96%
Explosive properties	Not explosive.
Kinematic viscosity	Not determined.
Oxidizing properties	Not oxidizing.
VOC	< 50 g/l < 0.42 lb/gal

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known. In the event of fire: See Section 5.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No inhalation hazard under normal conditions. Inhalation of titanium dioxide dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	May cause damage to organs through prolonged or repeated exposure by ingestion.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
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Components	Species	Test Results
Bis(aminopropyltrimethoxysilyl)amine (CAS 82985-35-1)		
<u>Acute</u>		
<u>Dermal</u>		
LD50	Rabbit	11.3 ml/kg, 24 Hours
<u>Oral</u>		
LD50	Rat	3.6 ml/kg
Methyl-tris (2-butanonoxime)silane (CAS 22984-54-9)		
NOAEL	Rat	10 mg/kg
<u>Acute</u>		

Oral
LD50

2463 mg/kg

Components	Species	Test Results
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
Inhalation		
Dust		
LC50	Rat	> 0.14 mg/l, 4 Hours
Oral		
LD50	Rat	> 3300 mg/kg
Titanium Dioxide (CAS 13463-67-7)		
<u>Acute</u>		
Oral		
LD50	Rat	> 5000 mg/kg
Zirconium dioxide (CAS 1314-23-4)		
<u>Acute</u>		
Inhalation		
Aerosol		
LC50	Rat	> 4.3 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans. Titanium dioxide is considered carcinogenic only when in an inhalable powdered form. Due to the form of the product, exposure to the potentially carcinogenic components is not expected.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Silicon dioxide, crystalline silica-free (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.	
Titanium Dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.	
NTP Report on Carcinogens		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (Blood, Cardiovascular system) through prolonged or repeated exposure by ingestion.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	May cause damage to organs through prolonged or repeated exposure.	
12. Ecological information		
Ecotoxicity	The product 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.	

Components		Species	Test Results
Titanium Dioxide (CAS 13463-67-7)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	> 100 mg/l, 48 Hours
Fish	LL50	Oryzias latipes	> 100 mg/l, 96 Hours
Zirconium dioxide (CAS 1314-23-4)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	> 1000 mg/l, 48 hours
Fish	LC50	Danio rerio	> 100 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available for this product.		
Mobility in soil	No data available.		
Other adverse effects	No data available.		
13. Disposal considerations			
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.		
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.		
14. Transport information			
DOT			
Not regulated as dangerous goods.			
Non-bulk: Not hazardous for transport under exception 173.150 (f) (2,3).			
DOT BULK			
BULK			
UN number	NA1993		
UN proper shipping name	Combustible liquid, n.o.s. (Methyl-tris (2-butanonoxime)silane)		
Transport hazard class(es)			
Class	Comb liq		
Subsidiary hazard	-		
Label(s)	None		
Packing group	III		
Environmental hazards			
Marine pollutant	No		
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.		
Special provisions	IB3, T1, T4, TP1		
Packaging exceptions	150		
Packaging non bulk	203		
Packaging bulk	241		
IATA			

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established.
Annex II of MARPOL 73/78 and
the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Serious eye damage or eye irritation
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

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

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations

US. Massachusetts RTK - Substance List

Silicon dioxide, crystalline silica-free (CAS 7631-86-9)
Titanium Dioxide (CAS 13463-67-7)
Zirconium dioxide (CAS 1314-23-4)

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

Titanium Dioxide (CAS 13463-67-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Silicon dioxide, crystalline silica-free (CAS 7631-86-9)
Titanium Dioxide (CAS 13463-67-7)

US. Rhode Island RTK

Silicon dioxide, crystalline silica-free (CAS 7631-86-9)
Titanium Dioxide (CAS 13463-67-7)
Zirconium dioxide (CAS 1314-23-4)

California Proposition 65



WARNING: This product can expose you to chemicals including Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Developmental toxin

Toluene (CAS 108-88-3)

Listed: January 1, 1991

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Duro-Shield - Silicone Reinforced Sealant		SDS US
Version #: 01 Revision date: 19-November-2024 Issue date: 18-July-2024		12 /

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	18-July-2024
Revision date	-
Version #	01
HMIS® ratings	Health: 2* Flammability: 2 Physical hazard: 0
Disclaimer	Holcim Solutions and Products US, LLC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.