# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **Duro-Shield - Roof Coating - Tan**

**Other means of identification**

**Product code** 419505T, 419555T

**Recommended use** Architectural coating and waterproofing.

**Recommended restrictions** Uses other than the recommended use.

**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 2A |
| | 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. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if you feel unwell. 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 foam, carbon dioxide, dry powder or water fog 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. |
| **Supplemental information** | None. |

## 3. Composition/information on ingredients

**Mixtures**

| Chemical name | CAS number | % |
|---|---|---|
| Silicon dioxide, crystalline silica-free | 7631-86-9 | 1 - 5 |
| Titanium Dioxide | 13463-67-7 | 1 - 5 |
| Methyl-tris (2-butanonoxime)silane | 22984-54-9 | 1 - 4 |
| Aminopropyltrimethoxysilane | 13822-56-5 | 0.5 - 1.5 |

**Composition comments**

Components not listed are either non-hazardous or are below reportable limits.
All concentrations are in percent by weight unless otherwise indicated.
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 (COx). Silicon oxides. Nitrogen Oxides (NOx).

**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.

**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.

**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 insoluble in water.

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: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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.

**Environmental precautions**

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

## 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. Provide adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Persons susceptible to allergic reactions should not handle this product.

**Conditions for safe storage, including any incompatibilities**

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).

## 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. |

**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 | |

**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 |

**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 |

| US. NIOSH: Pocket Guide to Chemical Hazards<br>Components | Type | Value |
|---|---|---|
| Silicon dioxide, crystalline silica-free (CAS 7631-86-9) | TWA | 6 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 safety glasses with side shields (or 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** | 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. 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**

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|---|---|
| **Physical state** | Liquid. |
| **Form** | Liquid. |
| **Color** | Tan. |
| **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 determined. |
| **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** | 1.25 (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 applicable as the product is not unstable. |
| **Viscosity** | 10000 cps (77 °F (25 °C)) |
| **Other information** | Solids: 96.19% |
| **Density** | Not determined. |
| **Explosive properties** | Not explosive. |

| | |
|---|---|
| **Kinematic viscosity** | Not determined. |
| **Oxidizing properties** | Not oxidizing. |

| | |
|---|---|
| **VOC** | < 50 g/l<br>< 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** | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| **Incompatible materials** | Strong oxidizing agents. Chlorine. Fluorine. |
| **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** | Prolonged exposure may cause chronic effects. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. |

**Information on toxicological effects**

**Acute toxicity** Not expected to be acutely toxic.

| Components | Species | Test Results |
|---|---|---|
| Methyl-tris (2-butanonoxime)silane (CAS 22984-54-9) | | |
| NOAEL | Rat | 10 mg/kg |
| **Acute** | | |
| **Oral** | | |
| LD50 | | 2463 mg/kg |
| Silicon dioxide, crystalline silica-free (CAS 7631-86-9) | | |
| **Acute** | | |
| **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) | | |
| **Acute** | | |
| **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** Prolonged exposure may cause chronic effects. Prolonged inhalation may be harmful.

## 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 |

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available on bioaccumulation.

**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**

**UN proper shipping name Transport hazard class(es)**

**Class**

**Subsidiary hazard**

**Label(s)**

NA1993
Combustible liquid, n.o.s. (Methyl-tris (2-butanonoxime)silane)

Comb liq
-
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 Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 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)<br>Serious eye damage or eye irritation<br>Respiratory or skin sensitization<br>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)

**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)

**California Proposition 65**

**WARNING:** For more information go to www.P65Warnings.ca.gov. This product can expose you to chemicals including Arsenic, Cobalt, Lead, Nickel and nickel compounds, which are known to the State of California to cause cancer, and Toluene, Lead, which are known to the State of California to cause birth defects or other reproductive harm.

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

| | |
|---|---|
| Arsenic (CAS 7440-38-2) | Listed: February 27, 1987 |
| Cobalt (CAS 7440-48-4) | Listed: July 1, 1992 |
| Lead (CAS 7439-92-1) | Listed: October 1, 1992 |
| Nickel and nickel compounds (CAS 7440-02-0) | Listed: October 1, 1989 |

**California Proposition 65 - CRT: Listed date/Developmental toxin**

| | |
|---|---|
| Lead (CAS 7439-92-1) | Listed: February 27, 1987 |
| Toluene (CAS 108-88-3) | Listed: January 1, 1991 |

**California Proposition 65 - CRT: Listed date/Female reproductive toxin**

| | |
|---|---|
| Lead (CAS 7439-92-1) | Listed: February 27, 1987 |

**California Proposition 65 - CRT: Listed date/Male reproductive toxin**

| | |
|---|---|
| Lead (CAS 7439-92-1) | Listed: February 27, 1987 |

**International Inventories**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Industrial Chemicals (AICIS) | No |
| Canada | Domestic Substances List (DSL) | 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

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