

SAFETY DATA SHEET

1. Identification

Product identifier	Duro-Shield - Acrylic Reinforced Mastic
Other means of identification	
Product code	425005
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	Not classified.	
Health hazards	Sensitization, skin	Category 1
	Specific target organ toxicity, repeated exposure (oral)	Category 2 (kidney)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	May cause an allergic skin reaction. May cause damage to organs (kidney) through prolonged or repeated exposure by ingestion. Harmful to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Do not breathe mist/vapors. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves.
Response	If on skin: Wash with plenty of water. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Storage	None.
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	%
Ethylene glycol	107-21-1	1 - 5
Titanium Dioxide	13463-67-7	1 - 5
Ammonium Hydroxide	1336-21-6	0.3
Ammonia, anhydrous	7664-41-7	0.15
Diuron	330-54-1	0.06
3-Iodo-2-propynyl butylcarbamate	55406-53-6	0.05
2-octyl-2H-isothiazol-3-one	26530-20-1	0.04
2-Methyl-2H-isothiazol-3-one	2682-20-4	0.004

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.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Coughing. May cause an allergic skin reaction. Dermatitis. Rash. Edema. 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

During fire, gases hazardous to health may be formed. Combustion products include: Carbon oxides (CO_x). Calcium 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

Water runoff can cause environmental damage.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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

This product is miscible in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Absorb spillage with suitable 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.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Persons susceptible to allergic reactions should not handle this product.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)			
Components	Type	Value	Form
Ammonia, anhydrous (CAS 7664-41-7)	PEL	35 mg/m3	
		50 ppm	
Ammonium Hydroxide (CAS 1336-21-6)	PEL	35 mg/m3	
		50 ppm	
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
US. ACGIH Threshold Limit Values (TLV)			
Components	Type	Value	Form
Ammonia, anhydrous (CAS 7664-41-7)	STEL	35 ppm	
	TWA	25 ppm	
Ammonium Hydroxide (CAS 1336-21-6)	STEL	35 ppm	
	TWA	25 ppm	
Diuron (CAS 330-54-1)	TWA	10 mg/m3	
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
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	
Ammonia, anhydrous (CAS 7664-41-7)	IDLH	15 %	
		300 ppm	
Ammonium Hydroxide (CAS 1336-21-6)	IDLH	15 %	

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

Components	Type	Value
Titanium Dioxide (CAS 13463-67-7)	IDLH	300 ppm 5000 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ammonia, anhydrous (CAS 7664-41-7)	STEL	27 mg/m3 35 ppm 18 mg/m3
Ammonium Hydroxide (CAS 1336-21-6)	STEL	25 ppm 27 mg/m3 35 ppm 18 mg/m3
Diuron (CAS 330-54-1)	TWA	25 ppm 10 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 and safety shower.
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. Chloroprene rubber. Suitable gloves can be recommended by the glove supplier.
Skin protection	
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece. Appropriate respirator selection should be made by a qualified professional. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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 ammonia.
Odor threshold	Not available.
pH	Not determined.
Melting point/freezing point	Not determined.
Initial boiling point and boiling range	Not determined.
Flash point	> 199.4 °F (> 93 °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 1.4 (77 °F (25 °C))

Solubility(ies)

Solubility (water) Miscible

Partition coefficient (n-octanol/water) Not applicable, product is a mixture.

Auto-ignition temperature Not self-igniting.

Decomposition temperature Not applicable as the product is not unstable.

Viscosity 118 ku (77 °F (25 °C))

Other information Solids content: 65%

Explosive properties Not explosive.

Kinematic viscosity Not determined.

Oxidizing properties Not oxidizing.

VOC 44 g/l
0.37 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 temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Fluorine.

Hazardous decomposition products No hazardous decomposition products are known.

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. Crystalline silica poses a health hazard when it is inhaled as a dust. Normal use of product does not generate silica or other dust.

Skin contact May cause an allergic skin reaction.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion May cause damage to organs through prolonged or repeated exposure by ingestion.

Symptoms related to the physical, chemical and toxicological characteristics May cause an allergic skin reaction. Dermatitis. Rash. Edema. Prolonged exposure may cause chronic effects.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
2-octyl-2H-isothiazol-3-one (CAS 26530-20-1)		
Acute		
Dermal		
ATE		311 mg/kg
Inhalation		
<i>Mist</i>		
ATE		0.27 mg/l

Components	Species	Test Results
Oral ATE		125 mg/kg
3-Iodo-2-propynyl butylcarbamate (CAS 55406-53-6)		
Acute Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	1.1 g/kg
Ammonia, anhydrous (CAS 7664-41-7)		
Acute Inhalation		
Gas		
LC50	Mouse	2940 mg/m3, 1 Hours
	Rat	5137 mg/m3, 1 Hours
Ammonium Hydroxide (CAS 1336-21-6)		
Acute Oral		
LD50	Rat	350 mg/kg
Ethylene glycol (CAS 107-21-1)		
Acute Dermal		
LD50	Rabbit	9530 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	Direct contact with eyes may cause temporary 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	Due to the form of the product, exposure to the potentially carcinogenic components is not expected. Titanium dioxide is considered carcinogenic only when in an inhalable powdered form. Crystalline silica poses a health hazard when it is inhaled as a dust. Normal use of product does not generate silica or other dust.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
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 (kidney) 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

Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
2-octyl-2H-isothiazol-3-one (CAS 26530-20-1)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Algae	0.15 mg/l, 72 Hours
Crustacea	EC50	Crustacea	0.181 mg/l, 48 Hours
Fish	LC50	Fish	0.122 mg/l, 96 Hours
<i>Chronic</i>			
Algae	NOEC	Algae	0.068 mg/l, 72 Hours
Crustacea	NOEC	Crustacea	0.035 mg/l, 21 days
Fish	NOEC	Fish	0.022 mg/l, 21 days
3-Iodo-2-propynyl butylcarbamate (CAS 55406-53-6)			
Aquatic			
Fish	LC50	Oncorhynchus mykiss	67 µg/l, 96 hours
Ammonia, anhydrous (CAS 7664-41-7)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	25 mg/l, 48 Hours
Fish	LC50	Rainbow Trout	> 0.16 - < 0.37 mg/l, 96 Hours
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.42 mg/l, 21 days
Fish	NOEC	Pink salmon (Oncorhynchus gorbuscha)	1.2 mg/l, 21 days
Ethylene glycol (CAS 107-21-1)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Ceriodaphnia dubia	10000 mg/l, 48 Hours
Fish	LC50	Oncorhynchus mykiss	24591 mg/l, 96 Hours
<i>Chronic</i>			
Crustacea	NOEC	Ceriodaphnia dubia	3469 mg/l, 7 days
Fish	NOEC	Oncorhynchus mykiss	14692 mg/l, 12 days
Titanium Dioxide (CAS 13463-67-7)			
Aquatic			
<i>Acute</i>			
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 for this product.

Partition coefficient n-octanol / water (log Kow)

Ammonia, anhydrous (CAS 7664-41-7)	-2.66
Ammonium Hydroxide (CAS 1336-21-6)	-2.66
Diuron (CAS 330-54-1)	2.68
Ethylene glycol (CAS 107-21-1)	-1.36

Mobility in soil

This product is miscible in water and may not disperse in soil.

Other adverse effects

No data available.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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.

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)

2-Methyl-2H-isothiazol-3-one (CAS 2682-20-4) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ammonia, anhydrous (CAS 7664-41-7)	Listed.
Ammonium Hydroxide (CAS 1336-21-6)	Listed.
Diuron (CAS 330-54-1)	Listed.
Ethylene glycol (CAS 107-21-1)	Listed.

SARA 304 Emergency release notification

Ammonia, anhydrous (CAS 7664-41-7)	100 LBS
Ammonium Hydroxide (CAS 1336-21-6)	100 LBS

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

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Ammonium Hydroxide	1336-21-6	100	500		
Ammonia, anhydrous	7664-41-7	100	500		

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Ethylene glycol	107-21-1	1 - 5

Other federal regulations

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

Ethylene glycol (CAS 107-21-1)

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

Ammonia, anhydrous (CAS 7664-41-7)
Ammonium Hydroxide (CAS 1336-21-6)

US state regulations

US. Massachusetts RTK - Substance List

Ammonia, anhydrous (CAS 7664-41-7)
Ammonium Hydroxide (CAS 1336-21-6)
Diuron (CAS 330-54-1)
Ethylene glycol (CAS 107-21-1)
Titanium Dioxide (CAS 13463-67-7)

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

3-Iodo-2-propynyl butylcarbamate (CAS 55406-53-6)
Ammonia, anhydrous (CAS 7664-41-7)
Ammonium Hydroxide (CAS 1336-21-6)
Diuron (CAS 330-54-1)
Ethylene glycol (CAS 107-21-1)
Titanium Dioxide (CAS 13463-67-7)

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

Ammonia, anhydrous (CAS 7664-41-7)
Ammonium Hydroxide (CAS 1336-21-6)
Diuron (CAS 330-54-1)
Ethylene glycol (CAS 107-21-1)
Titanium Dioxide (CAS 13463-67-7)

US. Rhode Island RTK

Ammonia, anhydrous (CAS 7664-41-7)
Ammonium Hydroxide (CAS 1336-21-6)
Diuron (CAS 330-54-1)
Ethylene glycol (CAS 107-21-1)
Titanium Dioxide (CAS 13463-67-7)

California Proposition 65



WARNING: This product can expose you to chemicals including 1,4-Dioxane, Diuron, Acrylonitrile, Ethyl acrylate, Ethylene oxide, Methyloxirane, which are known to the State of California to cause cancer, and Ethylene glycol, Ethylene oxide, which are 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/Carcinogenic substance

1,4-Dioxane (CAS 123-91-1)	Listed: January 1, 1988
Acrylonitrile (CAS 107-13-1)	Listed: July 1, 1987
Diuron (CAS 330-54-1)	Listed: May 31, 2002
Ethyl acrylate (CAS 140-88-5)	Listed: July 1, 1989
Ethylene oxide (CAS 75-21-8)	Listed: July 1, 1987
Formaldehyde (CAS 50-00-0)	Listed: January 1, 1988
Methyloxirane (CAS 75-56-9)	Listed: October 1, 1988

California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene glycol (CAS 107-21-1)	Listed: June 19, 2015
Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009

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

Ethylene oxide (CAS 75-21-8)	Listed: February 27, 1987
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California Proposition 65 - CRT: Listed date/Male reproductive toxin

Ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009
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International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
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)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/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: 0 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.