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Revision Number 7

This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**GHS product identifier****Product Name** DuraShield 110 Resin**Other means of identification****Synonyms** DuraShield 110 Polyol, DuraShield 110 Resin – Part B, DuraShield 110 Polyol – Part B, DuraShield 110-61 Resin, DuraShield 110-61 Polyol, DuraShield 110-61 Resin – Part B, DuraShield 110-61 Polyol – Part B**Recommended use of the chemical and restrictions on use****Recommended Use** Resin for Chemical Resistant Coating**Uses advised against** Consumer use**Supplier's details****Initial Supplier**Cloverdale Paint Inc.
400-2630 Croydon Drive
Surrey, British Columbia
V3Z 6T3**Manufacturer Address**LifeLast. Inc.
3813 Helios Way Suite 190
Pflugerville, TX 78660
Telephone number: 512-628-2112**Emergency telephone number****Emergency Telephone Number** Chemtrec 1-800-424-9300**2. HAZARDS IDENTIFICATION****Classification**

This product is considered hazardous according to the criteria set within the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Label Elements

Signal Word

Danger

**Hazard Statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause an allergic skin reaction
 May cause damage to organs through prolonged or repeated exposure

Physical and Health Hazards Not Otherwise Classified

Not applicable.

Precautionary Statements**Prevention**

- In case of inadequate ventilation wear respiratory protection.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves.
- Do not breathe dust/fume/gas/mist/vapors/spray.

General Advice

- Get medical attention/advice if you feel unwell

Skin

- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- Wash contaminated clothing before reuse.

Inhalation

- IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage

- None

Disposal

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

Other information

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

DuraShield 110 Polyol, DuraShield 110 Resin – Part B,
 DuraShield 110 Polyol – Part B, DuraShield 110-61 Resin,
 DuraShield 110-61 Polyol, DuraShield 110-61 Resin – Part B,
 DuraShield 110-61 Polyol – Part B

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Titanium dioxide	13463-67-7	.1-10 *	12087	2018-04-13

Iron oxide	1309-37-1	.1-10 *	12087	2018-04-13
Carbon black	1333-86-4	.1-5 *	12087	2018-04-13
C.I. Pigment Blue 15	147-14-8	.1-5 *	12087	2018-04-13
Aromatic Amine	Trade Secret	1-5 *	12087	2018-04-13
Organic metallic complex	Trade Secret	.1-1 *	12087	2018-04-13
Diamine	Trade Secret	10-30 *	12087	2018-04-13
Aliphatic Amine	Trade Secret	.5-1.5 *	12087	2018-04-13

* Actual concentration ranges are withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove and wash contaminated clothing before re-use.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Asthma-like and/ or skin allergy-like symptoms. Rashes.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician May cause sensitization by inhalation and skin contact.

5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<u>Unsuitable Extinguishing Media</u>	None
<u>Specific Hazards Arising from the Chemical</u>	Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous Combustion Products	Carbon oxides. Nitrogen oxides (NOx).
Explosion Data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
<u>Protective Equipment and Precautions for Firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Wear protective gloves/clothing and eye/face protection. Avoid contact with skin, eyes and clothing.

Environmental Precautions

Environmental Precautions Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. Collect spillage. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment Dike far ahead of liquid spill for later disposal.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use personal protective equipment. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Avoid contact with skin, eyes and clothing. Wear protective gloves/ eye protection/ face protection Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed.

Incompatible Products Strong oxidizing agents, Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
Iron oxide 1309-37-1	TWA: 5 mg/m ³ respirable particulate matter	TWA: 10 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ fume and total dust Iron oxide (vacated) TWA: 5 mg/m ³ respirable fraction regulated under Rouge	IDLH: 2500 mg/m ³ Fe dust and fume TWA: 5 mg/m ³ Fe dust and fume
Carbon black 1333-86-4	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
C.I. Pigment Blue 15 147-14-8	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist
Organic metallic complex	STEL: 0.2 mg/m ³ Sn TWA: 0.1 mg/m ³ Sn S*	TWA: 0.1 mg/m ³ Sn (vacated) TWA: 0.1 mg/m ³ Sn (vacated) S*	IDLH: 25 mg/m ³ Sn TWA: 0.1 mg/m ³ except Cyhexatin Sn

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Safety glasses with side-shields.
Skin and Body Protection	Wear protective gloves/clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid.	Appearance	Varies.
Odor	Faint.	Odor Threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	Not applicable	None known
Melting Point/Range	Not determined	None known
Boiling Point/Boiling Range	> 232 °C	None known
Flash Point	> 179 °C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	1.1 @ 25°C	None known
Water Solubility	Insoluble	None known
Solubility in other solvents	Not determined	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	Not determined	None known

Flammable Properties Not flammable

Explosive Properties No data available
Oxidizing Properties No data available

Other information

VOC Content (%) 0

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	No data available.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Hazardous Polymerization</u>	Hazardous polymerization does not occur.
<u>Conditions to avoid</u>	High temperatures.

Incompatible materials Strong oxidizing agents, Strong acids.

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation May cause irritation of respiratory tract. May cause respiratory sensitization.
Eye Contact Contact with eyes may cause irritation.
Skin Contact May cause sensitization by skin contact.
Ingestion May be harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 4092 mg/kg; Acute toxicity estimate

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diamine	= 11200 mg/kg (Rat)	-	-
Titanium dioxide	> 10000 mg/kg (Rat)	-	> 6820 mg/m ³
Iron oxide	> 10000 mg/kg (Rat)	-	-
C.I. Pigment Blue 15	> 10000 mg/kg (Rat)	-	-
Carbon black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Aromatic Amine	= 485 mg/kg (Rat) = 472 mg/kg (Rat)	= 700 mg/kg (Rabbit)	-
Aliphatic Amine	= 1000 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Asthma-like and/ or skin allergy-like symptoms.

Delayed and immediate effects and also chronic effects from short and long term exposure

Respiratory or Skin Sensitization May cause sensitization by inhalation. May cause sensitization by skin contact.
Germ Cell Mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product. This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid. This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X
Iron oxide		Group 3		
Carbon black	A3	Group 2B	-	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to its Carcinogenicity to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity**STOT - single exposure****STOT - repeated exposure****Aspiration Hazard**

Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met

May cause damage to organs through prolonged or repeated exposure.

None of the ingredients are known to be an aspiration hazard. Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
C.I. Pigment Blue 15 147-14-8		LC50 48 h: > 100 mg/L static (Oryzias latipes)		
Carbon black 1333-86-4				EC50 24 h: > 5600 mg/L (Daphnia magna)
Aliphatic Amine		LC50 96 h: 46 - 100 mg/L static (Leuciscus idus)		

Persistence and Degradability

No information available

Bioaccumulation

No information available

Chemical Name	Log Pow
C.I. Pigment Blue 15	6.6
Aliphatic Amine	2.03

Mobility

No information available

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. In addition, consult with the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION**DOT**

Not regulated

TDG

Not regulated

MEX

Not regulated

15. REGULATORY INFORMATION

International Regulations

Ozone depleting substances Not applicable
 Persistent Organic Pollutants Not applicable
 Hazardous Waste

Chemical Name	Basel Convention (Hazardous Wastes)
C.I. Pigment Blue 15	Y22

The Rotterdam Convention (Prior Informed Consent) Not applicable
 International Convention for the Prevention of Pollution from Ships (MARPOL) Not applicable

International Inventories

TSCA Complies
 DSL/NDSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
C.I. Pigment Blue 15		X		

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

The classification listed below only applies to respirable Titanium dioxide and respirable carbon black. The classification listed below only applies to respirable quartz. This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Titanium dioxide	13463-67-7	Carcinogen
Carbon black	1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island

Titanium dioxide	X	X	X	-	X
Iron oxide	X	X	X		X
Carbon black	X	X	X	X	X
Organic metallic complex					X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Health Hazard 2 Flammability 1 Instability 0 Physical and Chemical Hazards -

HMIS Health Hazard 2* Flammability 1 Physical Hazard 0 Personal Protection X

**Indicates a chronic health hazard.*

Prepared By LifeLast
 3813 Helios Way Suite 190
 Pflugerville, TX 78660
 1-512-628-2112

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General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet