



SAFETY DATA SHEET

Issuing Date 21-Mar-2018

Revision Date 24-Jan-2019

Revision Number 6

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 DuraGard TS Resin

Other means of identification

Synonyms DuraGard W-270R, DuraGard TS Polyol, DuraGard TS Resin – Part A, DuraGard TS Polyol – Part A

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.

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Label Elements

Signal Word

Danger



Hazard Statements

Harmful if swallowed

Harmful in contact with skin

Harmful if inhaled

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

- Wear protective gloves/protective clothing/eye protection/face protection.
- Use only outdoors or in a well-ventilated area.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- In case of inadequate ventilation wear respiratory protection.
- Contaminated work clothing should not be allowed out of the workplace.
- 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.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- Wash contaminated clothing before reuse.
- If skin irritation or rash occurs: Get medical advice/attention.

Inhalation

- IF INHALED: Remove victim 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.
- Rinse mouth.

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.

Unknown acute toxicity

89.4% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

DuraGard TS Polyol, DuraGard TS Resin – Part A, DuraGard TS Polyol – Part A

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Quartz	14808-60-7	10-30 *	12083	2018-04-10
Titanium dioxide	13463-67-7	.1-5 *	12083	2018-04-10
Graphite	7782-42-5	1-5 *	12083	2018-04-10
Carbon black	1333-86-4	.1-5 *	12083	2018-04-10
Aromatic Amine	Trade Secret	.1-5 *	12083	2018-04-10
Aliphatic Amine	Trade Secret	.5-1.5 *	12083	2018-04-10
Aromatic Diamine	Trade Secret	1-10 *	12083	2018-04-10

* 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

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None

Specific Hazards Arising from the Chemical

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.

Protective Equipment and

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

Precautions for Firefighters (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
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	30/(%SiO ₂ +2) mg/m ³ TWA, Total Dust;250/(%SiO ₂ +5) mppcf TWA, respirable fraction; 10/(%SiO ₂ +2) mg/m ³ TWA, respirable TWA: 0.1 mg/m ³ (vacated)	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
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
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
Graphite 7782-42-5	TWA: 2 mg/m ³ respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust

		dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	
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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
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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.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid.	Appearance	Varies.
Odor	Sweet, Sulfuric.	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	> 226 °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	1.3-1.4 @ 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.
<u>Incompatible materials</u>	Strong oxidizing agents, Strong acids.
<u>Hazardous decomposition products</u>	Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Harmful if inhaled. May cause irritation of respiratory tract. May cause respiratory sensitization.
Eye Contact	Contact with eyes may cause irritation.
Skin Contact	Harmful in contact with skin. May cause sensitization by skin contact.
Ingestion	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	1085 mg/kg; Acute toxicity estimate
LD50 Dermal	1839 mg/kg; Acute toxicity estimate
Inhalation	
dust/mist	1.67 mg/L; Acute toxicity estimate
Unknown acute toxicity	89.4% of the mixture consists of ingredient(s) of unknown toxicity.
Acute Oral Toxicity	82.2% of the mixture consists of ingredient(s) of unknown acute oral toxicity
Acute Dermal Toxicity	84.9% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
Acute Inhalation (dust/mist) Toxicity	89.4% of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Titanium dioxide	> 10000 mg/kg (Rat)	-	> 6820 mg/m ³
Aromatic Amine	= 485 mg/kg (Rat) = 472 mg/kg (Rat)	= 700 mg/kg (Rabbit)	-
Carbon black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Graphite	> 10000 mg/kg (Rat)	-	-
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.
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Delayed and immediate effects and also chronic effects from short and long term exposure

Respiratory or Skin Sensitization	May cause sensitization of susceptible persons. May cause sensitization by skin contact. May cause sensitization by inhalation.
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
Quartz	A2	Group 1	Known	X
Titanium dioxide		Group 2B		X
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

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity
STOT - single exposure
STOT - repeated exposure

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

Based on available data, the classification criteria are not met

Causes damage to organs through prolonged or repeated exposure. May cause disorder and damage to the: Immune system

Aspiration Hazard

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

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

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

Chemical Name	CAS-No	California Prop. 65
Quartz	14808-60-7	Carcinogen
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
Quartz	X	X	X	-	X
Polytetrafluoroethylene			X		X
Titanium dioxide	X	X	X	-	X
Carbon black	X	X	X	X	X
Graphite	X	X	X		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, Inc.
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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