SAFETY DATA SHEET

Issuing Date 19-Mar-2018 **Revision Date** 03-Nov-2020 **Revision Number** 3

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 **Primall-160 Curative**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Curative 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
Skin Corrosion/Irritation	Category 1 Subcategory 1B
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1

Label Elements

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction

Physical and Health Hazards Not Otherwise Classified
Not applicable.

Precautionary Statements

Prevention
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- In case of inadequate ventilation wear respiratory protection.
- Contaminated work clothing should not be allowed out of the workplace.

General Advice
- Immediately call a POISON CENTER or doctor/physician.

Eyes
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician.

Skin
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- Wash contaminated clothing before reuse.

Inhalation
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Immediately call a POISON CENTER or doctor/physician.

Ingestion
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- Do NOT induce vomiting.

Storage
- Store locked up.

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

Other information
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Diethylenetriamine	111-40-0	1-5	-	-
2,4,6-Tri(dimethylaminomethyl)phenol	90-72-2	1-5	-	-
Ethylenediamine	107-15-3	1-5	-	-
Petroleum naphtha, light aromatic	64742-95-6	1-5	-	-
Stoddard solvent	8052-41-3	0.1-1.0	-	-

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. Call a physician or Poison Control Center immediately.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or Poison Control Center immediately. 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. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Ingestion IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Asthma-like and/ or skin allergy-like symptoms. Serious eye irritation or damage. Itching, Rashes, Burn

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 May cause sensitization by inhalation and skin contact. The product causes burns of eyes, skin and mucous membranes.

Hazardous Combustion Products Carbon oxides. Nitrogen oxides (NOx).

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use personal protective equipment. Do not touch or walk through spilled material.

Environmental Precautions

Environmental Precautions Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. 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. Use only in ventilated areas. Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed. Store locked up.

Incompatible Products Strong oxidizing agents. Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diethylenetriamine 111-40-0	TWA: 1 ppm S*	(vacated) TWA: 1 ppm (vacated) TWA: 4 mg/m^3	TWA: 1 ppm TWA: 4 mg/m^3
Ethylenediamine 107-15-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 25 mg/m^3 (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m^3	IDLH: 1000 ppm TWA: 10 ppm TWA: 25 mg/m^3
Stoddard solvent 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m^3	IDLH: 20000 mg/m^3 Ceiling: 1800 mg/m^3 15 min TWA: 350 mg/m^3

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 Tightly fitting safety goggles. Face-shield.

Skin and Body Protection Wear protective gloves and additional protective clothing as necessary to prevent exposures. Butyl rubber or neoprene is acceptable.

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 Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid.	**Appearance**	Red brown.
Odor	No information available.	**Odor Threshold**	No information available.

Property	Values	Remarks/ - Method
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	No data available	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	No data available	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	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	No data available	None known

Flammable Properties Not flammable

Explosive Properties No data available
Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity No data available.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to avoid None known based on information supplied.

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 Irritating to mucous membranes.
Eye Contact Causes serious eye damage.
Skin Contact Causes severe skin burns. Harmful in contact with skin.
Ingestion Harmful if swallowed. Can burn mouth, throat, and stomach.

Numerical measures of toxicity - Product

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

LD50 Oral 969 mg/kg; Acute toxicity estimate
LD50 Dermal 1064 mg/kg; Acute toxicity estimate
Inhalation
dust/mist 5.2 mg/L; Acute toxicity estimate
Vapor 29 mg/L; Acute toxicity estimate

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diethylenetriamine	= 1080 mg/kg (Rat)	= 672 mg/kg (Rabbit)	= 70 mg/L (Rat) 4 h
2,4,6-Tri(dimethylaminomethyl)phenol	= 1200 mg/kg (Rat)	= 1280 mg/kg (Rat)	-
Ethylenediamine	= 637 mg/kg (Rat)	= 560 mg/kg (Rabbit)	4916 - 9832 mg/m^3 (Rat) 8 h
Petroleum naphtha, light aromatic	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

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

Skin corrosion/irritation Causes severe burns
Eye damage/irritation Risk of serious damage to eyes.
Respiratory or Skin Sensitization May cause sensitization by inhalation and skin contact
Germ Cell Mutagenicity No information available
Carcinogenicity Contains no ingredients above reportable quantities listed as a carcinogen.

Reproductive Toxicity No information available
STOT - single exposure No information available
STOT - repeated exposure No information available
Aspiration Hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not Classified

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)

Diethylenetriamine 111-40-0	EC50 72 h: = 1164 mg/L (Pseudokirchneriella subcapitata) EC50 96 h: = 345.6 mg/L (Pseudokirchneriella subcapitata) EC50 96 h: = 592 mg/L (Desmodesmus subspicatus)	LC50 96 h: = 1014 mg/L semi-static (Poecilia reticulata) LC50 96 h: = 248 mg/L static (Poecilia reticulata) LC50 96 h: = 430 mg/L semi-static (Leuciscus idus)	EC50 = 2000 mg/L 1 h EC50 = 96 mg/L 17 h	EC50 48 h: = 16 mg/L (Daphnia magna) EC50 24 h: = 37 mg/L (Daphnia magna)
Ethylenediamine 107-15-3	EC50 96 h: = 151 mg/L (Pseudokirchneriella subcapitata) EC50 72 h: = 645 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 180 - 560 mg/L semi-static (Poecilia reticulata) LC50 96 h: 191 - 254 mg/L flow-through (Pimephales promelas) LC50 96 h: 98.6 - 131.6 mg/L static (Pimephales promelas) LC50 96 h: = 115.7 mg/L semi-static (Pimephales promelas)	EC50 = 20 mg/L 15 min EC50 = 29 mg/L 17 h	EC50 48 h: = 17 mg/L (Daphnia magna)
Petroleum naphtha, light aromatic 64742-95-6		LC50 96 h: = 9.22 mg/L (Oncorhynchus mykiss)		EC50 48 h: = 6.14 mg/L (Daphnia magna)
Propylene glycol monomethyl ether acetate 108-65-6		LC50 96 h: = 161 mg/L static (Pimephales promelas)		EC50 48 h: > 500 mg/L (Daphnia magna)
2-Butoxyethanol 111-76-2		LC50 96 h: = 1490 mg/L static (Lepomis macrochirus) LC50 96 h: = 2950 mg/L (Lepomis macrochirus)		EC50 24 h: 1698 - 1940 mg/L (Daphnia magna) EC50 48 h: > 1000 mg/L (Daphnia magna)

Persistence and Degradability No information available

Bioaccumulation No information available

Chemical Name	Log Pow
Diethylenetriamine	-1.3
Ethylenediamine	-1.221

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. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

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 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
Ethylenediamine	5000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Ethylenediamine	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Diethylenetriamine	X	X	X		X
Ethylenediamine	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	**Health Hazard**	3	**Flammability**	0	**Instability**	0	**Physical and Chemical Hazards**	-
HMIS	**Health Hazard**	3*	**Flammability**	0	**Physical Hazard**	0	**Personal Protection**	X

**Indicates a chronic health hazard.*

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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