

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

Name of the Product: Landmark

Product Code: FG0020

Recommended Use: Coating

Producer:

Perma Incorporated

605 Springs Road

Bedford, MA 01730

Telephone Number for Information - (978) 667-5161

Emergency Phone Number - (800) 255-3924 ChemTel Inc.

SECTION II – HAZARD(S) IDENTIFICATION

Classification:

While this material is not considered hazardous per OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information that is critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

Not dangerous according to the Globally Harmonized System (GHS).

Pictogram: Not applicable.

Signal Word: Not applicable.

Hazard Statement: No known significant effects or critical hazards.

SECTION III – Composition/Information On Ingredients

INGREDIENT	CAS#	WEIGHT (%)
Tri-Butoxyethyl Phosphate	78-51-3	1 - 3
Ethylene Glycol	107-21-1	1 - 3
Dibutyl Phthalate	84-74-2	1 - 3
Diethylene Glycol Monobutyl Ether	112-34-4	2 - 4
2-(2-Methoxyethoxy) ethanol	111-77-3	4 - 6

SECTION IV – FIRST AID MEASURES

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Eye Contact: Move individual away from exposure. Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed so by medical personnel. Get medical attention if symptoms occur.

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet. GET IMMEDIATE MEDICAL ATTENTION.

SECTION V – FIRE FIGHTING MEASURES

Suitable extinguishing media: Carbon Dioxide, foam, dry chemical, water spray.

Hazardous Thermal Decomposition Products: May produce carbon monoxide, carbon dioxide, nitrogen oxides.

Fire/Explosion Hazard: None known.

Precautions for Firefighting: Wear full firefighting gear and use respiratory protection (SCBA).

SECTION VI – ACCIDENTAL RELEASE MEASURES

Small Spills: Stop leak if no risk is involved. Move container(s) from affected area. Dilute with water and mop up. Absorb with inert material. Small amounts of material can be flushed, material is biodegradable.

Large Spills: Stop leak if no risk is involved. Move container(s) from affected area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect with absorbent material i.e. sand, earth, vermiculite or diatomaceous earth. Dispose of via a licensed waste disposal contractor. See section 1 for emergency contact information and section 13 for waste disposal information.

SECTION VII – HANDLING AND STORAGE

Precautions for Safe Handling: Put on appropriate personal protective equipment. Do not get in eyes, skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container, tightly closed, when not in use. Keep away from acids. Do not reuse container.

Advice on General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas where this product is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional hygiene measures.

KEEP OUT OF REACH OF CHILDREN

SECTION VIII – EXPOSURE CONTROLS AND PERSONAL PROTECTION

General Advice: The recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain airborne levels.

Eye Protection: Safety eyewear that complies should be used to avoid exposure to liquid splashes. Safety glasses with side shields are recommended.

Skin Protection: Chemical resistant gloves should be used at all times when handling any chemical product. Disposal vinyl is recommended.

SECTION IX – PHYSICAL PROPERTIES

Appearance	Milky white
Odor	Acrylic polymer
Odor Threshold	Not available
Physical State	Liquid
pH	8.2-9.0
Flash Point (TCC)	Not applicable. Product does not sustain combustion.
Flammability (solid, gas)	Not available
Lower and Upper Explosive Limits	Not available
Vapor Pressure	20 mmHg
Vapor Density	1.0
Relative Density	1.1
Solubility	Water soluble
Partition coefficient:	Not available
Auto-Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	5-15 cps. @ 25°C

SECTION X – STABILITY AND REACTIVITY

Stability: This product is stable.

Conditions to Avoid: Extreme heat and cold.

Incompatible Products: Avoid contact with strong acids or strong oxidizing agents.

Hazardous Decomposition: None known.

Hazardous Reactions: Product will not undergo hazardous polymerization.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Tri-Butoxyethyl Phosphate

Oral LD50 Rat: > 500 < 5000 mg/kg

Dermal LD50 Rabbit: > 10 g/kg

Inhalation LC50 Rat: > 4.43 mg/l maximum attainable concentration
[Study Number I91-1208]

Ethylene Glycol

Oral LD50 Rat: > 5000 mg/kg

Dermal LD50 Rabbit: > 5000 mg/kg

Inhalation LC50 Rat: > 183 ppm (8 Hours)

Dibutyl Phthalate

Oral LD50 Rat: 7500 mg/kg

Dermal LD50 Rabbit: > 20000 mg/kg

Inhalation LC50 Rat: 4250 ppm

Diethylene Glycol Monobutyl Ether

Oral LD50 Rat: 6560 mg/kg

Dermal LD50 Rabbit: 2700 mg/kg
Inhalation LC50 Guinea Pig: > 633 ppm (1 Hour)
2-(2-Methoxyethoxy) ethanol
Oral LD50 Mouse: 8222 mg/kg
Dermal LD50 Rabbit: 2500 uL/kg
Inhalation LC50 Rabbit: 7190 mg/kg

Chronic Toxicity:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen or potential carcinogen by NTP, OSHA and or IARC.

Reproductive Toxicity:

No information available.

Target Organs:

Eyes and skin are primary target routes.

SECTION XII – Ecological Information

Ecotoxicity

Ecotoxicity Effects: No information available

Bioaccumulation: No information available

Tri-Butoxyethyl Phosphate

24hr LC50 (daphnia magna) = 84 mg/l
48hr LC50 (daphnia magna) = 75 mg/l
96hr EC50 (fathead minnow) = 16 mg/l
48hr EC50 (killifish) = 44 mg/l (10°C)
= 27 mg/l (20°C)
= 6.8 mg/l (30°C)

Ethylene Glycol

96hr LC50 (oncorhynchus mykiss) = 22810 mg/l
96hr LC50 (pimephales promelas) = 49000 mg/l
48hr EC50 (daphnia magna) = 41000 mg/l

Dibutyl Phthalate

96hr LC50 (oncorhynchus mykiss) = 1.5 – 6.5 mg/l
96hr LC50 (pimephales promelas) = 0.9 – 4.5 mg/l
48hr EC50 (scenedesmus subspicatus) = 3.5 – 6.0 mg/l

Diethylene Glycol Monobutyl Ether

96hr LC50 (lepomis macrochirus) = 1300 mg/l
24hr LC50 (daphnia magna) = 2850 mg/l

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously

notifying the local sewage treatment plant authority. For guidance, contact your local State Water Board or Regional Office of the EPA.

SECTION XIV – TRANSPORTATION INFORMATION

Unit Containers: 55 Gallon Plastic, 30 Gallon Plastic, 5 Gallon Plastic, 1 Gallon Plastic, 1 Quart Plastic

Reportable Quantity: Not Applicable

TDG: Not Regulated

DOT: Not Regulated

IATA: Not Regulated

IMDG/IMO: Not Regulated

SECTION XV – REGULATORY INFORMATION

TSCA Inventory Status: All components of this material are listed on or are exempted from the US Toxic Substances Control Act (TSCA) inventory.

Canadian Inventory Status: This material contains components that are NT listed on the Canadian Domestic Substances List (DSL).

US Federal Regulations:

Section 313 of Title III of the Superfund Amendments and Reauthorization ACT of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Component	CAS#	Weight (%)	SARA 313 Status
Tri-Butoxyethyl Phosphate	78-51-3	1 – 3	Not Listed
Ethylene Glycol	107-21-1	1 - 3	Listed
Diethylene Glycol Monobutyl Ether	112-34-4	2 – 4	Listed
2-(2-Methoxyethoxy) ethanol	111-77-3	4 – 6	Listed

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

TSCA 12(b) – Export Notification:

This material does not contain any components that are subject to the US Toxic Substances Control act (TSCA) section 12(b) Export Notification requirements.

Clean Air Act, Section 12 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

2-(2-Methoxyethoxy) ethanol is listed as a hazardous air pollutant.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Chemical Weapons Convention (CWC):

This product does not contain any listed substances.

California Proposition 65:

This product contains no listed substances known to the state of California to cause cancer, birth defects or other reproductive harm at levels which require reporting under the state statute.

SECTION XVI – OTHER INFORMATION

HMIS Rating: Health 1
Flammability 0
Reactivity 0
Prepared By: David Sadlo
Preparation Date: July 7, 2015

The information herein is based on data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or results. Also this shall not establish a legally valid contractual relationship.

Vendor assumes no responsibility for injury to vendee or third person proximately caused if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in use of the material.

Our products are intended for sale to industrial and commercial customers. We encourage customers to inspect and test our products before use and to satisfy themselves as to suitability for their specific applications.

Warranty - The manufacturer warrants that products sold comply with specifications as represented and will perform satisfactorily if used according to the directions, or the manufacturer will refund or replace any unused portion thereof, for a period of one year from the date of manufacture. The manufacturer does not make any other warranty, or assume responsibility of any kind, expressed or implied regarding the effect or result of the products use; and assumes no responsibility of injury to vendee or third parties proximately caused by the material if reasonable safety procedures are not adhered to.