

SAFETY DATA SHEET (SDS)

SDS Date: 09/09/2015

Printed: 9/28/2015

SECTION 1: Identification of the substance/mixture and of the company

PRODUCT NAME: Liquid Lectric Tape
PRODUCT CODES MDR-740

USES:

Do not use for any application other than its intended use.

This Safety Data Sheet has been updated in accordance with the Global Harmonized System (GHS).

MANUFACTURER: Marine Development & Research

ADDRESS:

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SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

Causes irritation to the skin, eyes, mucous membranes and respiratory tract.
Can be absorbed through the skin causing systemic effects.

GHS Classification:

H302 Harmful if swallowed
H313 May be Harmful in contact with skin
H373 May cause damage to organs through prolonged or repeated exposure

GHS Label elements:

Pictograms:



Signal Word:

WARNING

Hazard Statements:

Description

H302 Harmful if swallowed
H313 May be harmful in contact with Skin

Precautionary Statements: Description

P262 Do not get in eyes, on skin or on clothing
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection/face protection
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352 IF ON SKIN: Wash with soap and water
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do-continue rinsing
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth
P331 DO NOT induce vomiting
P333+313 If skin irritation or a rash occurs: Get medical advice/attention
P337 If eye irritation persists
P362 Take off contaminated clothing and wash before reuse

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P391 Control spillage

P403+233 Store in a well ventilated place. Keep container tightly closed

P501 Dispose of contents/container in accordance with local/national regulations

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Acrylic Copolymer Proprietary	20.0 – 30.0	Not Classified as Hazardous	
2-(2-butoxyetoxy)entanol CAS# 112-34-5	1.0 – 3.0	Causes serious eye irritation Forms peroxides	1,2
Ethylene Glycol CAS# 107-21-1	1.0 – 3.0	Acute toxicity, Oral Skin irritation Specific target organ systemic toxicity – single exposure, Oral, Central nervous system, Kidney Specific target organ systemic toxicity – repeated exposure, Oral, Central nervous system, Kidney	Category 4 Category 2 Category 1 Category 2 1, 2
Dibutyl Phthalate 87-74-2	0.50 – 1.00	Reproduction Acute Aquatic	Category 1B Category 1 1,2
Carbon Black CAS No. 1333-86-4	2.0 - 5.0	Acute Toxicity – No evidence of adverse effects from available data Acute Eye – High dust concentrarions may cause mechanical irritation to eye. Acute Skin – May cause mechanical irritation, soiling and skin drying, Sensitization – No cases of sensitization have been reported in humans Carcinogenicity – IARC listed; Group 2B (possibly carcinogenic to humans). Not listed as carcinogen by NTP, ACGIH, OSHA or the European Union. There are no known human carcinogenic effects related to the PAH content of carbon blacks. Recent research has shown that the PAH content of carbon blacks is not released in biological fluids and thus not available for biological activity.	1, 2

GHS Classification Scale (1 = severe; 4 = slight)

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit

[3] PBT substance or vPvb substance

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SECTION 4: FIRST AID MEASURES

Description of first aid measures

General	Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly Clean contaminated shoes.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion	If swallowed, immediately contact Poison Control Center. DO NOT induce vomiting unless instructed to do so by Medical personnel. Never give anything by mouth to an unconscious person.

Important symptoms and effects, acute and delayed

Overview	Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and Nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or Fatal. Avoid contact with eyes, skin and clothing.
Inhalation	Harmful if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing Dizziness, headache or nausea.
Eyes	Causes severe eye irritation. Avoid contact with eyes.
Skin	Causes skin irritation. May be harmful if absorbed through skin.
Ingestion	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea or drowsiness.
Chronic effects	No Data

SECTION 5: FIRE-FIGHTING MEASURES

Conditions of flammability	Material may burn but does not ignite readily. Fire may produce irritating and or toxic gasses. Heated containers may explode.
Extinguishing media	Use dry chemical powder, CO2 or foam, water spray may be used for large fires.
Special protective equip.	Wear a self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and full Protective gear.
Hazardous combustion products	Carbon oxides
Special information	Use water spray to disperse vapors and to protect personnel attempting to stop leak. Can react vigorously with oxidizing materials. Do not allow fire water contaminated with this product to enter any waterway or storm drain.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear adequate/appropriate personal protection equipment. Ventilate area if confined space.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains or soil. Discharge into the environment must be avoided.
Methods of containment/cleanup	Contain liquid with dirt, sand, vermiculite or other noncombustible solids. Transfer to a metal container for disposal.

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SECTION 7: HANDLING AND STORAGE

Handling	Wear adequate personal protective equipment. Keep containers tightly closed. Avoid contact with skin or eyes.
Storage	Store in a cool, dry, well-ventilated area, protect from freezing.
Incompatibilities	Oxidizing agents, including nitric acid and peroxides.
Suitable Packing Materials	Polyethylene, poly propylene or Stainless steel (tanks/containers) Do NOT store in lead, steel or aluminum containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS No.	Ingredient	Source	Value
Proprietary	Acrylic Copolymer Emulsion	Supplier	No Controls
84-74-2	Dibutyl Phthalate	ACGIH TWA	5.00 mg/m ³ (TLV)
		OSHA TWA	5.00 mg/m ³ (Table Z-1 limits for air contaminants)
		NIOSH TWA	5.00 mg/m ³
107-21-1	Ethylene Glycol	ACGIH	100mg/m ³ (CEILING) aerosol only
112-34-5	2-(2-butoxyetoxy)entanol	ACGIH	10 ppm
1333-86-4	Carbon Black	OSHA	3.5mg/m ³ TWA
		ACGIH	3 mg/m ³ TWA (inhalable fraction)

PEL = Permissible Exposure Limits
TLV = Threshold Limit Value
EL = Excursion Limit

TWA = Time Weighted Average (8 hr.)
STEL = Short Term Exposure Limit (15 min.)
WEEL = Workplace Environmental Exposure Level

Exposure Controls:

Respiratory	Select equipment to provide protection from the ingredients listed in section 3 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor or mist levels above the applicable limits, wear appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.
Eyes	Avoid contact with eyes. Protective equipment should be selected to provide protection from the ingredients Listed in section 3 of this document. Depending on site and application method specific conditions, safety glasses, chemical goggles, and or head and face protection may be required. All equipment must be thoroughly cleaned or discarded after use.
Skin	Select equipment to provide protection from the ingredients listed in section 3 of this document. Depending on the site-specific conditions of use, protective gloves, apron, boots, head and face protection May be required to prevent contact. All equipment must be thoroughly cleaned or discarded after each use.
Engineering Controls	Ensure adequate ventilation to keep exposure levels at a minimum under the specific conditions.
Other Work Practices	Emergency eye wash stations and safety showers should be available in the immediate work area. Use good Personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove exposed/spoiled clothing and wash separately before reuse. Shower after work using plenty of soap and water.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black Viscous

ODOR: Mild latex

PHYSICAL STATE: liquid

PH AS SUPPLIED: Not Measured

BOILING POINT:

F: Not Measured

C: Not Measured

MELTING POINT:

F: Not Measured

C: Not measured

FREEZING POINT:

F: Not measured

C: Not Measured

VAPOR PRESSURE (mmHg): Not Measured

@

F:

C:

VAPOR DENSITY (AIR = 1): Heavier than air

@

F:

C:

SPECIFIC GRAVITY (H₂O = 1):

@ 1.0552

F: 77

C:

EVAPORATION RATE: NE MIXTURE

BASIS (=1):

SOLUBILITY IN WATER: Negligible

MIXTURE

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No data available

10.2. Chemical stability

This product is stable and hazardous polymerization will not occur. Not sensitive to mechanical impact. Excessive heat and fume generation can occur if improperly handled.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May produce hazardous fumes when heated to decomposition as in welding. Fumes may produce Hydrogen chloride, Chlorinated compounds, Carbon Dioxide and Carbon Monoxide.

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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Breathing large amounts of hydrocarbon/ketone solvents for short periods of time adversely effects the human nervous system, the kidneys, liver, and the heart. Repeatedly breathing large amounts of toluene as when "sniffing glue" or paint can cause permanent brain damage. Human exposure studies and animal studies suggest that exposure to large amounts of solvents during pregnancy can adversely affect the developing fetus.

Ingredient	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation Vapor LC 50	Eye Damage/irritation
Acrylic Copolymer Emulsion	No Data Available	No Data Available	No Data Available	No Data Available
2-(2-butoxyetoxy)entanol 112-34-5	2764 (Rat)	2764 (Rabbit)	No Data Available	Rabbit 24 hr. moderate
Ethylene Glycol 107-21-1	7712 (Rat)	3500 (Mouse)	2.5 mg/l (rat) (6 hr)	Not Classified
Dibutyl Phthalate 84-74-2	8000 (Rat)	20860 (Rabbit)	Maximisation test (GPMT) – Guinea pig Result: does not cause skin sensitisation (OECD test Guideline 406)	Rabbit: No eye irritation (OECD Test Guideline 405)
Carbon Black 1333-86-4	8000 (Rat)	3000 (Rabbit)	No Data Available	No Data Available

All ingredient values, literature values

<u>Item</u>	<u>Category</u>	<u>Hazard</u>
Acute Toxicity (mouth)	Not Classified	Not Applicable
Acute Toxicity (skin)	Not Classified	Not Applicable
Acute Toxicity (inhalation)	Not Classified	Not Applicable
Skin corrosion/irritation	3	Causes mild skin irritation.
Eye damage/irritation	Not Classified	Not Applicable
Sensitization (respiratory)	Not Classified	Not Applicable
Sensitization (skin)	Not Classified	Not Applicable
Germ toxicity	Not Classified	Not Applicable
Carcinogenicity	Not Classified	Not Applicable
Reproductive Toxicity	Not Classified	Not Applicable
Specific target organ systemic toxicity (single exposure)	Not Classified	Not Applicable
Specific target organ systemic Toxicity (repeated exposure)	Not Classified	Not Applicable
Aspiration hazard	Not Classified	Not Applicable

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SECTION 12: ECOLOGICAL INFORMATION

Ingredient	Toxicity to fish LC50	Toxicity to invertebrates LC50	Toxicity to algae EC50	Biodegradation	Bioaccumulation	Mobility in soil
Acrylic Copolymer Emulsion	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available
2-(2-butoxyetoxy)entanol	1300 mg/l (96 hr)	No Data Available	100 mg/l (96 hr)	85% Readily Biodegradable	No Data Available	No Data Available
Ethylene Glycol	Low acute toxicity to fish	Low acute toxicity to aquatic invertebrates	Low acute toxicity to algae	Rapidly Biodegradable	Not expected to bioaccumulate.	Low potential for soil adsorption
Dibutyl Phthalate	0.85 mg/l (96 hr) fathead minnow	3.7 mg/l (48 hr) Daphnia magna	No Data Available	81% Readily Biodegradable	Does not bioaccumulate	No Data Available

All ingredient Values, literature values

Persistence and degradability No data available
Bio accumulative potential Not Measured
Mobility in soil No data available
Results of PBT and vPvB assessment This product contains no PBT/vPvB chemicals.
Other adverse effects No data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Waste must be disposed of in accordance with federal, state and local environmental control regulations. This product contains components that are RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service. Empty containers must be handled with care due to product residue.

SECTION 14: TRANSPORT INFORMATION

Proper shipping name: Water base Paint Class 55

The product is classified: Not classified

Sea (IMDG):

Class:
PG:
MP: NA
EmS:

MFAG:

Inland Waterways: To be handled locally.

Air (ICAO/IATA):

Class:
PG: NA

Land (DOT):

Class: 55
PG: NA
Primary risk label: NA

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SECTION 15: REGULATORY INFORMATION

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory.

WHMIS Classification Not Regulated

DOT Marine Pollutants (10%):
(No Product Ingredients Listed)

DOT Severe Marine Pollutants (1%):
(No Product Ingredients Listed)

EPCRA 311/312 Chemicals and RQs (>.1%):
Ethylene Glycol

EPCRA 302 Extremely Hazardous (>.1%):
(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals (>.1%):
107-21-1 Ethylene Glycol
84-74-2 Dibutyl Phthalate

Mass RTK Substances (>1%):
107-21-1 Ethylene Glycol
84-74-2 Dibutyl Phthalate
1333-86-4 Carbon Black

Penn RTK Substances (>1%):
107-21-1 Ethylene Glycol
84-74-2 Dibutyl Phthalate
1333-86-4 Carbon Black

Penn Special Hazardous Substances (>.01%):
(No Product Ingredients Listed)

RCRA Status:
(No Product Ingredients Listed)

N.J. RTK Substances (>1%):
107-21-1 Ethylene Glycol
84-74-2 Dibutyl Phthalate
1333-86-4 Carbon Black

N.J. Special Hazardous Substances (>.01%):
(No Product Ingredients Listed)

N.J. Env. Hazardous Substances (>.1%):
(No Product Ingredients Listed)

Proposition 65 – Carcinogens (>0%):
(No Product Ingredients Listed)

Proposition 65 – Female Repro Toxins (>0%):
(No Product Ingredients Listed)

Proposition 65 – Male Repro Toxins (>0%):
(No Product Ingredients Listed)

Proposition 65 – Developmental Toxins (>0%):
84-74-2 Dibutyl Phthalate

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SECTION 16: OTHER INFORMATION

HMIS:

Health	1
Fire	1
Physical Hazard	0

ABBREVIATIONS:

ACGIH = American Conference of Governmental Industrial Hygienists
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value TWA
= Time Weighted Average
PEL = Permissible Exposure Limit
STEL = Short Term Exposure Limit
NA = Not Applicable
NE = Not Established

PREPARATION INFORMATION: HMIS Hazard Ratings Scale 0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Extreme

Check with supervisor for appropriate personal protection in accordance with rating.

DISCLAIMER:

The information contained herein is based on data provided by our suppliers and relates only to the specific material identified. Marine Development & Research believes that the information is accurate and reliable as of the preparation date of this material safety data sheet and reflects our best judgment, but no representation, guarantee or warranty expressed or implied is made as to the accuracy, reliability or completeness of the information. MDR urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

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