

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE SUPPLIER

Product Name: TLC Marine Strip
Product Code: B4420
MSDS Date: December 28, 2018

Christopher House, Inc.
3722 3rd Avenue South
Birmingham, AL 35222

General Information: 205-591-7341

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS Classification:

Flammable liquids, Category 2
Acute Toxicity, Category 4
Skin Irritation, Category 2
Eye irritation, Category 2B
Carcinogenicity, Category 1B
Toxic to reproduction, Category 2
Specific target organ toxicity following single exposure, Category 3
Specific target organ toxicity following repeated exposure, Category 2
Aspiration hazard, Category 1
Acute hazards to the aquatic environment, Category 2

GHS Labeling



Symbol:

Signal Word: Danger

Hazard Statements:

H225: Highly flammable liquid and vapor
H302: Harmful if swallowed
H316 + H320: Causes skin and eye irritation
H350: May cause cancer
H361: Suspected of damaging fertility or the unborn child
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure
H304: May be fatal if swallowed and enters airways
H401: Toxic to aquatic life



Precautionary Statements:

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233: Keep container tightly closed.

P240: Ground/Bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink, or smoke when using this product.

P322+P313: If skin irritation occurs: Get medical advice/attention.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P202: Do not handle until all safety precautions have been read and understood.

P201: Obtain special instructions before use.

P260: Do not breathe mist/vapor/spray.

P271: Use only outdoors or in well-ventilated area.

P273: Avoid release to the environment.

Response:

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370 + P378 In case of fire: consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam to extinguish.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331: Do not induce vomiting.

P330: Rinse mouth

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P308 + P313: IF exposed or concerned: Get medical advice/attention.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 + P314: Call a POISON CENTER/doctor/medical advice/attention if you feel unwell.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

Storage:

P403 + P235 + P233: Store in a well-ventilated place. Keep cool. Keep container tightly closed.

P405: Store locked up.

Disposal:

P501: Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects: See Section 11 for more information

Symptoms of Exposure:

Inhalation:	May cause irritation. May cause headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Harmful if inhaled.
Ingestion:	May cause irritation. May cause nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May be fatal or cause blindness if swallowed.
Eyes:	May cause irritation. Can cause blindness
Skin:	May cause irritation. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Prolonged exposure may cause skin burns.

This product contains carcinogens or potential carcinogens as listed by IARC, NTP, or ACGIH.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Methanol CAS #67-56-1	1-100	Not avail	Not avail	200 ppm	250 ppm
2	Toluene CAS #108-88-3	1-100	200 ppm	Not Available	20 ppm	Not Available
3	Dichloromethane CAS #75-09-2	1-100	25 ppm (action level 12.5 ppm)	125 ppm	50 ppm	Not Available
4	Acetone 67-64-1	1-100	1,000 ppm	Not Available	500 ppm	Not Available

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Medical care must emphasize the control of acidosis and the use of intravenous bicarbonate has been lifesaving. Evidence is good that treatment of methanol absorption is enhanced through the administration of ethanol, which should be given to produce a blood level of at least 0.1%. Ethanol diminishes the production of toxic metabolites of methanol. Blood methanol level of 50 mg/100mL is an indication for hemodialysis, which has improved the prognosis of methanol intoxication. Methanol is often confused with beverage alcohol (ethylalcohol). Care must be taken to prevent its ingestion, the most frequent cause of methanol poisoning. Prevent aspiration of vomit. Turn victim's head to the side. Do not induce vomiting. If the material is swallowed, get medical attention or advice.

Skin: Wash off for 20 minutes. Remove contaminated clothing, and any extraneous chemical.

Eyes: Immediately flush eyes with water for at least 20 minutes while holding eyelids open. Remove contact lenses. Get medical attention if irritation persists.

Note to physician: In case of ingestion or massive inhalation, observe victim as an inpatient because of slow metabolism causes latent period of 24 hours between exposure and acidosis and blindness.

Section 5: FIRE FIGHTING MEASURES

Flash Point (Methanol): 11°C
Lower Explosion Limit: (Methanol) 36.5 %
Upper Explosion Limit: (Methanol) 6%
Auto Ignition Temp (Methanol): 385°C
Flammability Classification: Class IB Flammable Liquid

Suitable Extinguishing Media:

Use methods appropriate for the surrounding fire. Consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam.

Products of Combustion: Incomplete combustion may form carbon monoxide. Fire or intense heat may cause violent rupture of packages. Flash back possible over considerable distance. May form explosive mixtures in air. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes. In the event of fire, cool tanks with water spray.

Fire Fighting Equipment/Instructions:

Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for fire-fighting if necessary

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	3	3
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: For large spills wear gloves, Tyvek suits, safety glasses, and appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Special Properties: Flammable Liquid! This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

Environmental Precautions: Prevent discharge to open bodies of water, municipal sewers, and watercourses.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth. Control runoff and isolate discharged material for proper disposal. Approach release from upwind.

Methods for Clean-up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container.

Section 7: HANDLING AND STORAGE

Handling:

Keep away from heat, sparks and flame. Use only with adequate ventilation.

To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage:

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Keep away from oxidizers.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment (PPE)

Respiratory Protection: Wear appropriate respirator when ventilation is inadequate.

Eye/Face Protection: Splash proof chemical goggles and face shield.

Hand Protection: Neoprene gloves, impervious gloves, the breakthrough time of the selected glove(s) must be greater than the intended use period.

Body: Avoid skin contact. If product comes in contact with clothing, immediately remove soaked clothing and shower. Wear long sleeve shirts and trousers without cuffs.

Other Protective Equipment:

Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Not Available
Odor	Characteristic
pH	Not Available
Vapor Density (Methanol)	0.792 (air = 1)
Boiling Point (Methanol)	148°F (64.55°C)
Vapor Pressure (Methanol)	97.23 mmHg
Melting Point (Methanol)	-144°F (-97.72°C)
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility (water)	Soluble
Density (Methanol)	49.412 lb/ft ³ (0.7915g/cm ³)
Evaporation Rate	Not Available
Octanol/Water partition coefficient (Kow)	Not Available
Auto-ignition temperature:	Not Available
Decomposition temperature:	Not Available

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70 °C (21°C).

Condition to Avoid: Flames, sparks, electrostatic discharge, heat and other ignition sources.

Incompatible Materials: This product reacts with reactive metals (eg. Sodium, calcium, zinc etc), materials reactive with hydroxyl compounds, and oxidizing agents.

Hazardous Decomposition: Upon decomposition, this product evolves carbon monoxide, carbon dioxide, aldehydes, and flammable hydrocarbon fragments (eg acetylene).

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

Component Analysis LD50

Methanol (67-56-1)

LD₅₀: Oral, Mouse - 7300 mg/Kg

LD₅₀: Oral, Rabbit - 14200 mg/Kg

LD₅₀: Oral, Rat - 5628 mg/Kg

LD₅₀: Skin, Rabbit - 15800 mg/Kg

LC₅₀: Inhalation, Rat - 64000 ppm

Toluene (108-88-3)

48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static];

48 Hr EC50 Daphnia magna: 11.5 mg/L

Inhalation LC50 Rat 12.5 mg/L 4 h;

Inhalation LC50 Rat >26700 ppm 1 h;

Oral LD50 Rat 636 mg/kg;

Dermal LD50 Rabbit 8390 mg/kg;

Dermal LD50 Rat 12124 mg/kg

Dichloromethane (75-09-2)

Oral LD50 Rat >2000 mg/kg;

Inhalation LC50 Rat 76000 mg/m³ 4 h

Skin - rabbit - Skin irritation - 24 h

Eyes - rabbit - Mild eye irritation - 24 h

Acetone (67-64-1)

Oral LD50 Rat: 5800 mg/kg

LC50 Inhalation - rat - 8 h - 50,100 mg/m³

LD50 Dermal - guinea pig - 7,426 mg/kg

Skin - rabbit - Mild skin irritation - 24 h

Eyes - rabbit - Eye irritation - 24 h

CHRONIC EFFECTS:

Component

Methanol (67-56-1)

Carcinogenic Effects: Not available

Mutagenic Effects: Laboratory experiments have resulted in mutagenic effects.

Teratogenic Effects: Chronic exposure may cause reproductive disorders and teratogenic effects.

Developmental Toxicity: Chronic exposure may cause reproductive disorders.

Target Organs: Eyes, CNS, skin, GI tract, and respiratory system

Toluene (108-88-3)

Carcinogenic Effects: A4 - Not classifiable for human or animal by ACGIH.

Mutagenic Effects: Not Available.

Teratogenic Effects: Not Available

Developmental Toxicity: Reproductive effects in experimental animals and in long term chemical abuse

situations.

Target Organs: Long-term overexposure to toluene has been associated with impaired color vision. Also, long-term overexposure to toluene in occupational environments has been associated with hearing damage. Skin, respiratory system, Central nervous system, Heart, blood, kidneys, lungs, liver, mucous membrane, brain, eyes, lens, or cornea.

Dichloromethane (75-09-2)

Carcinogenic Effects: NTP – reasonably anticipated to be a human carcinogen.

IARC – Possible carcinogen 2B

Mutagenic Effects: Genotoxicity in vivo – rat – Oral DNA Damage

Teratogenic Effects: Has been toxic to the fetus in lab animals at doses toxic to the mother.

Developmental Toxicity: Not available

Target Organs: Skin, CVS, eyes, CNS (in animals: lung, liver, salivary, and mammary glands tumors)

Acetone (67-64-1)

Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen

Neurotoxicity: This product contains Acetone, a central nervous system target.

Mutagenicity: No information available for product.

Reproductive: No information available for product.

Developmental: No information available for product.

Target Organs: Acetone can target the respiratory system, eyes, CNS, kidneys, hematology.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Methanol (67-56-1)

EC50 (48 h) : 13,200 mg/l Species : Rainbow trout (*Oncorhynchus mykiss*).

EC50 (48 h) : 16,000 mg/l Species : Bluegill sunfish (*Lepomis macrochirus*).

EC50 (48 h) : > 10,000 mg/l Species : Daphnia

Ecotoxicity: Toluene (108-88-3)

96 Hr EC50 *Pseudokirchneriella subcapitata*: >433 mg/L;

72 Hr EC50 *Pseudokirchneriella subcapitata*: 12.5 mg/L [static] mg/L [flow-through] (1 day old);

96 Hr LC50 *Pimephales promelas*: 12.6 mg/L [static];

96 Hr LC50 *Oncorhynchus mykiss*: 5.89-7.81 mg/L [flowthrough];

96 Hr LC50 *Oncorhynchus mykiss*: 14.1- 17.16 mg/L [static];

96 Hr LC50 *Oncorhynchus mykiss*: 5.8 mg/L [semi-static];

96 Hr LC50 *Lepomis macrochirus*: 11.0-15.0 mg/L [static];

96 Hr LC50 *Oryzias latipes*: 54 mg/L [static];

96 Hr LC50 *Poecilia reticulata*: 28.2 mg/L [semi-static];

96 Hr LC50 *Poecilia reticulata*: 50.87-70.34 mg/L [static]

48 Hr EC50 *Daphnia magna*: 5.46 - 9.83 mg/L [Static];

48 Hr EC50 *Daphnia magna*: 11.5 mg/L

Ecotoxicity: Dichloromethane (75-09-2)

48 Hr LC50 *Eisenia foetida*: 0.3 mg/cm² [filter paper]

48 Hr LC50 *Eisenia foetida*: 304 mg/cm² [filter paper]

96 Hr EC50 *Pseudokirchneriella subcapitata*: >500 mg/L

72 Hr EC50 *Pseudokirchneriella subcapitata*: >500 mg/L

96 Hr LC50 *Pimephales promelas*: 140.8-277.8 mg/L [flow-through];

96 Hr LC50 *Pimephales promelas*: 262-855mg/L [static];

96 Hr LC50 *Lepomis macrochirus*: 193 mg/L [static];

96 Hr LC50 *Lepomis macrochirus*: 193 mg/L [flow-through]

48 Hr EC50 *Daphnia magna*: 1532 - 1847 mg/L [Static];

48 Hr EC50 *Daphnia magna*: 190 mg/L

Ecotoxicity: Acetone (67-64-1)

96 hour LC50 Oncorhynchus mykiss: 5540 mg/L (static)
96 hour LC50 Pimephales promelas 6210 mg/L [flow through]
96 hour LC50 Lepomis macrochirus: 8300 mg/L [static]
15 min EC50 Photobacterium phosphoreum: 14,500 mg/L
48 Hr EC50 water flea: 0.0039 mg/L
48 hour EC50 water flea: 12,700 mg/L [static]
48 hour EC50 Daphnia magna: 12,600 mg/L

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Flammable liquids, n.o.s. (Methanol, Toluene)

Hazard Class: 3

Identification No.: UN1993

Packing Group: II

Label: Flammable

Section 15: REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: Methanol (CAS #67-56-1) 1.0% de minimus, Toluene (CAS #108-88-3), Dichloromethane (CAS #75-09-2) 0.1 % de minimis concentration

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Toluene [CAS No.: 108-88-3] RQ = 1000 lbs. (453.6 kg), Dichloromethane [75-09-2] RQ = 1,000 lb, Methanol [CAS No. 67-56-1] RQ = 5,000, Acetone [CAS No. 67-64-1] RQ = 5,000.

SARA 311/312 Hazard The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard, Fire Hazard

**Additional Regulatory
Remarks**

Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains Toluene which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: **DANGER: Contains Toluene! Harmful or fatal if swallowed! Call Physician Immediately. Vapor Harmful! KEEP OUT OF REACH OF CHILDREN!**

California Proposition 65

WARNING: This product contains a chemical that is known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16: OTHER SUPPLEMENTAL INFORMATION

Disclaimer:

The information and recommendations contained in the Material Safety Data Sheet (MSDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

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