



SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: Semi Paste Stripper
Product Code: B4760
MSDS Date: November 7, 2014

Flo-Strip Division
2101 Clifton Ave
St. Louis, MO 63139

General Information: 314-644-1300
CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS Classification:

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 1)
Specific target organ toxicity - single exposure (Category 3)
Specific target organ toxicity - repeated exposure, (Category 2)
Reproductive toxicity (Category 2)
Carcinogenicity (Category 2)

GHS Labeling



Symbol:

Signal Word: Danger

Hazard Statements:

Flammable liquid and vapor
Causes skin and serious eye irritation.
Suspected of causing cancer
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Harmful if swallowed.
Harmful in contact with skin.
Harmful if inhaled.
Suspected of damaging fertility or the unborn child



Precautionary Statements:

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not handle until all safety precautions have been read and understood.
Obtain special instructions before use.
Do not breathe mist/vapors/spray.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.

Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash skin with plenty of water/shower.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam.

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.

IF exposed or concerned: Get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth

Storage:

Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Store locked up.

Disposal:

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

Potential Health Effects: See Section 11 for more information

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	1-20	Not avail	Not avail	200 ppm	250 ppm



2	Toluene CAS #108-88-3	1-10	200 ppm	Not Avail	20 ppm	Not Avail
3	Dichloromethane CAS #75-09-2	50-100	25 ppm (action level 12.5 ppm)	125 ppm	50 ppm	Not Avail

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: 54°C (129.2°F)
Lower Explosion Limit: (Methanol) 36.5 %
Upper Explosion Limit: (Methanol) 6%
Auto Ignition Temp (Methanol): 385°C

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	3	3
Fire	1	1
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: Fluorinated rubber 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 protective suit.

Other Protective Equipment:

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

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Colorless
Odor	Not Available
pH	Not Available
Vapor Density (Dichloromethane)	2.93 (air=1)
Boiling Point (Dichloromethane)	39.8°C
Vapor Pressure (Dichloromethane)	400 mmHg at 24°C
Melting Point (Dichloromethane)	-96.7°C
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility Water (Dichloromethane)	200 g/L at 20°C
Density (Dichloromethane)	1.3254-1.3258 g/cm ³ at 20°C
Evaporation Rate	Not Available
Octanol/Water partition coefficient (K_{ow}) (Dichloromethane)	1.25
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)

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

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 **Inhalation:** An irritant to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms of over-exposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death. A person may get better but then worse up to 30 hours later. **Ingestion:** Toxic. Symptoms similar to those for inhalation, but severity and speed of appearance may be greater. May be fatal or cause blindness. Usual fatal dose: 100 – 125 ml. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. **Skin Contact:** Methyl Alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur in harmful amounts; symptoms may parallel inhalation exposure. **Eye Contact:** Irritant, characterized by a burning sensation, redness, tearing, inflammation, possible corneal injury, painful sensitization to light. Continued exposure may cause lesions. **Chronic Exposure:** Marked impairment of vision has been reported. Repeated or prolonged skin contact may cause dermatitis. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. **Aggravation of Pre-Existing Conditions:** Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

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. **Skin:** May cause moderate skin irritation. Not expected to be a sensitizer.

Inhalation: Signs of eye, throat, and respiratory tract irritation (cough and difficulty breathing), CNS depression (fatigue, dizziness, headache, collapse, coma and death) and possible cardiac sensitization may occur after exposure to high vapor concentrations. **Eye:** Moderate eye irritant. Effects of eye irritation are reversible. **Ingestion:** Ingestion may cause discomfort and irritation of the gastrointestinal tract and CNS depression (fatigue, dizziness, collapse, coma and death). Aspiration into the lung may cause fatal chemical pneumonitis. May lead to potentially fatal cardiac sensitization.

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)

INHALATION: Respiratory tract irritation and central nervous system depression with symptoms of headaches, dizziness, nausea, unconsciousness and even death in extreme cases. **SKIN:** Irritation, Burn (immediately remove wet clothing) **EYES:** Irritation **INGESTION:** Gastrointestinal tract irritation, nausea, vomiting and diarrhea. Possible chemical pneumonia if liquid is aspirated into lungs.

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: Phenol (108-95-2)

56 Days LC100 *Eisenia foetida*: 6900 mg/kg [soil dry weight]

96 Hr EC50 *Pseudokirchneriella subcapitata*: 46.42 mg/L;

96 Hr EC50 *Pseudokirchneriella subcapitata*: 0.0188 - 0.1044 mg/L [static];

72 Hr EC50 *Desmodesmus subspicatus*: 187 - 279 mg/L [static]

96 Hr LC50 *Pimephales promelas*: 11.9-50.5 mg/L [flow-through];



96 Hr LC50 Pimephales promelas: 20.5-25.6 mg/L [static];
96 Hr LC50 Pimephales promelas: 32 mg/L;
96 Hr LC50 Oncorhynchus mykiss: 5.449-6.789 mg/L [flow-through];
96 Hr LC50 Oncorhynchus mykiss: 7.5-14 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 4.23-7.49 mg/L [semi-static];
96 Hr LC50 Oncorhynchus mykiss: 5.0-12.0 mg/L;
96 Hr LC50 Lepomis macrochirus: 13.5 mg/L [static];
96 Hr LC50 Lepomis macrochirus: 11.9-25.3 mg/L [flow-through];
96 Hr LC50 Lepomis macrochirus: 11.5 mg/L [semi-static];
96 Hr LC50 Poecilia reticulata: 34.09-47.64 mg/L [static];
96 Hr LC50 Poecilia reticulata: 31 mg/L [semi-static];
96 Hr LC50 Brachydanio rerio: 27.8 mg/L;
96 Hr LC50 Cyprinus carpio: 0.00175 mg/L [semi-static];
96 Hr LC50 Oryzias latipes: 33.9-43.3 mg/L [flow-through];
96 Hr LC50 Oryzias latipes: 23.4-36.6 mg/L [static];
48 Hr EC50 Daphnia magna: 4.24 - 10.7 mg/L [Static];
48 Hr EC50 Daphnia magna: 10.2 - 15.5 mg/L

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Toxic, liquids, organic, n.o.s.

Hazard Class: 6.1

Identification No.: UN2810

Packing Group: III

Label: Poison

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 listed.

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



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

Prepared by: Chemisphere Corp. on 4/21/14

Disclaimer:

The information and recommendations contained in the Safety Data Sheet (SDS) 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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