SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: Lacquer Thinner 1
Product Code: B3830
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 2)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Reproductive toxicity (Category 2)
Specific target organ toxicity - single exposure (Category 3), Central nervous system
Specific target organ toxicity - repeated exposure (Category 2)
Aspiration hazard (Category 1)

GHS Labeling

Symbol:

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapor
Causes skin irritation
Causes serious eye irritation
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways

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/vapor/spray.
Use only outdoors or in 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.
In case of fire: consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam.
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
Do not induce vomiting.
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 INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/medical advice/attention if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
If exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

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: COMPOSTION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	**Toluene CAS #108-88-3**	**1-100**	**200 ppm**	Not Avail	**20 ppm**	Not Avail
2	**Methyl Isobutyl Ketone 108-10-1**	**1-30**	**50 ppm**	Not Available	**50 ppm**	Not Available
3	**Isopropyl Alcohol CAS #67-63-0**	**1-30**	**400 ppm**	Not Avail	**400 ppm**	Not Avail
4	**PM Acetate CAS # 108-65-6**	**1-30**	Not Avail	Not Avail	Not Avail	Not Avail
5	**Methyl Ethyl Ketone 78-93-3**	**1-30**	**200 ppm**	Not Available	**200 ppm**	Not Available

6	**Acetone** **67-64-1**	**1-30**	**1,000 ppm**	Not Avail	**500 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: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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.

Section 5: FIRE FIGHTING MEASURES

Flash Point (toluene): Closed cup: 4°C (39°F). (Tagliabue (ASTM D-56))
Auto-ignition Temperature (toluene): 536°C (997°F)
Lower Explosion Limit (toluene): AP 1.2 %
Upper Explosion Limit (toluene): AP 7.1 %
Flammability Classification: Flammable Liquid Class IB

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:
Upon decomposition this product may emit carbon dioxide, carbon monoxide, and/or low molecular weight hydrocarbons.

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	**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: 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.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Colorless
Odor	Not available
pH (1%soln/water)	Not Available
Vapor Density (toluene)	>3 (Air=1)
Boiling Range (toluene)	80 to 145°C (176 to 293°F)

Vapor Pressure (toluene)	AP 3.2 kPa (AP 24 mm Hg) (at 20°C)
Melting Point	Not Available
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility (in water)	Very Slightly Soluble
Specific Gravity (toluene)	0.87 (Water = 1)
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 70ºC (21ºC).

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

Incompatible Materials: This product reacts with strong acid, strong bases, and oxidizing agents.

Hazardous Decomposition: Upon decomposition, this product evolves carbon monoxide, carbon dioxide, and/or low weight hydrocarbons.

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
Component Analysis LD50

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

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

Methyl Isobutyl Ketone (108-10-1)
Oral: Rat LD50 = 1600-3200 mg/kg
Dermal: Rabbit LD50 = >10 ml/kg
Inhalation: Rat LC50 = 2000-4000 ppm/4 hr

Isopropyl Alcohol (67-63-0)
Inhalation LC50 Rat: 72.6 mg/L/4H
Oral LD50 Rat: 4396 mg/kg
Dermal LD50 Rat: 12800 mg/kg

Dermal LD50 Rabbit: 12870 mg/kg

PM Acetate (108-65-6)
Oral LD50 Rat 8500 mg/kg (female)
Oral LD50 Rat 10,000 mg/kg (male)
Inhalation LC50 Rat 4345 ppm
Skin Rabbit LD50 5000 mg/kg

Methyl Ethyl Ketone (78-98-3)
Oral LD50 2737 mg/kg
Inhalation rat LC50 23,500 mg/m3/8-hr
Skin rabbit LD50 6480 mg/kg

CHRONIC EFFECTS:
Component

Toluene (108-88-3)
Carcinogenic Effects: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Toluene)
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.

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.

Methyl Isobutyl Ketone (108-10-1)
Carcinogenicity IARC: 2B - Group 2B: Possibly carcinogenic to humans
Neurotoxicity: No information available
Mutagenicity: No information available
Reproductive: No information available
Developmental: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system.
Target Organs: **Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion May be harmful if swallowed.

Isopropyl Alcohol (67-63-0)
Carcinogenicity: IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)
Mutagenicity: Not available.
Reproductive: Not available.
Developmental: Not available.
Target Organs: skin, eyes, CNS, and respiratory system. **Eye:** Contact with eyes may cause redness and

pain. **Skin:** Contact with skin may cause dry skin. **Inhalation:** Inhalation of this material may cause: cough, dizziness, drowsiness, headache, sore throat, abdominal pain, labored breathing, nausea, vomiting, and unconsciousness. **Ingestion:** Ingestion of this material may cause: cough, dizziness, drowsiness, headache, sore throat, abdominal pain, labored breathing, nausea, vomiting, and unconsciousness.

PM Acetate (108-65-6)
Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen
Neurotoxicity: No information available for product
Mutagenicity: No information available for product.
Reproductive: No information available for product.
Developmental: No information available for product.
Target Organs: **Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.

Methyl Ethyl Ketone (78-93-3)
Carcinogenicity: No information available
Neurotoxicity: No information available
Mutagenicity: No information available
Reproductive: No information available
Developmental: No information available
Target Organs: Prolonged exposure may cause central nervous system effects. Central nervous system depression, Gastrointestinal disturbance, narcosis May cause drowsiness or dizziness.

Section 12: ECOLOGICAL INFORMATION

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: 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

Ecotoxicity: Isopropyl Alcohol (67-63-0)\
96 Hr EC50 Scenedesmus Subspicatus: >1000 mg/L
72 Hr EC50 Scenedesmus subspicatus:>1000 mg/L
96 Hr LC50 Pimephales promelas: 9640 mg/L [flow through]

96 Hr LC50 Pimephales promelas: 94900 mg/L [flow through] (29 days old)
96 Hr LC50 Pimephales promelas: 61200 mg/L [flow through] (31 days old)
5 min EC50 Photobacterium phosphoreum: 35390 mg/L
48 Hr EC50 Daphnia magna: 13299 mg/L

Ecotoxicity: PM Acetate (108-65-6)
96 h LC-50 (fathead minnow): 161 mg/l 48 h LC-50 (daphnid): 408 mg/l

Ecotoxicity: Methyl Ethyl Ketone (78-98-3)
Fish LC50/960hour > 100 mg/l

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Paint related material
Hazard Class: 3
Identification No.: UN1263
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: Toluene (CAS #108-88-3), methyl isobutyl ketone (CAS #108-10-1)

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), Acetone [CAS No. 67-64-1] RQ = 5,000, methyl isobutyl ketone [CAS No. 108-10-1] RQ=5,000lbs, Methyl Ethyl Ketone RQ=5,000lbs

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!**

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

WARNING! This product contains a chemical known to the State of California to cause cancer.
4-Methylpentan-2-one

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared by: Chemisphere Corp. on 4/1/14

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. Chemisphere, however, makes no representation as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving the information will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Chemisphere be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information. User assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE BY CHEMISPHERE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this SDS. The ultimate compliance with federal, state or local regulations concerning the use of this compound, or compliance with respect to product liability, rests solely upon the purchaser thereof.

This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.