SAFETY DATA SHEET

FGCI
FiberGlass Coatings, Inc.

Date Prepared : 03/18/2014
SDS No : 129217

Toluene

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Toluene
GENERAL USE: Solvent
PRODUCT CODE: 129217
CHEMICAL FAMILY: Aromatic hydrocarbon
MOLECULAR FORMULA: C7H8
ALTERNATE TRADE NAME(S): Toluol; Methylbenzene; Petroleum hydrocarbon solvent,Methylbenzol

MANUFACTURER

Fiberglass Coatings Inc.
4301A 34th Street North
St. Petersburg, FL 33714
Customer Service: (800) 272-7890
E-Mail: www.fgci.com
Emergency Contact: Chem-Tel
Emergency Phone: (800) 255-3924

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Irritation, Category 2
Skin Irritation, Category 2
Aspiration Hazard, Category 1
Target Organ Toxicity (Single exposure), Category 3
Target Organ Toxicity (Repeated exposure), Category 2
Reproductive Toxicity, Category 2

Environmental:

Acute Hazards to the Aquatic Environment, Category 2

Physical:

Flammable Liquids, Category 2

GHS LABEL

Flame | Environment | Exclamation mark | Health hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H315: Causes skin irritation.
H304: May be fatal if swallowed and enters airways.
H336: May cause drowsiness or dizziness.
H373: May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H361: Suspected of damaging fertility or the unborn child (state specific effect if known)(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H401: Toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof [electrical/ventilating/lighting] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P264: Wash ... thoroughly after handling.
P273: Avoid release to the environment.

Response:

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.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P302+P352: IF ON SKIN: Wash with plenty of water/...
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331: Do NOT induce vomiting.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314: Get medical advice/attention if you feel unwell.

Storage:

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

P501: Dispose of contents/container to ...

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, Colorless Liquid, Pungent Odor.

IMMEDIATE CONCERNS: Flammable Liquid. Vapor may cause flash fire. Harmful or fatal if swallowed - can enter lungs and cause damage. Can cause eye, skin or respiratory tract irritation. Overexposure can cause central nervous system (CNS) depression and/or other target organ effects. Harmful to aquatic organisms.

POTENTIAL HEALTH EFFECTS

EYES: Can cause eye irritation. Symptoms include: stinging, tearing, redness, and swelling of the eyes.

SKIN: Can cause skin irritation. Prolonged or repeated exposure may cause dermatitis. Symptoms may include redness, burning, drying and cracking of the skin, burns and other skin damage.

INGESTION: Harmful or fatal if swallowed.This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

INHALATION: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

MEDICAL CONDITIONS AGGRAVATED: Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Respiratory System, Liver, Kidneys, Central Nervous System (CNS), auditory system.

ROUTES OF ENTRY: Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

TARGET ORGAN STATEMENT: May cause damage to the following organs: kidneys, lungs, liver, mucous membranes, hear, upper respiratory tract, skin, auditory system, central nervous system (CNS), eye, lens or cornea.

CANCER STATEMENT: Not classified as a carcinogen by the International Agency for Research of Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Toluene	90 - 100	108-88-3

4. FIRST AID MEASURES

EYES: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

SKIN: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

INGESTION: Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

INHALATION: If symptoms develop, immediately move individual away from exposure area and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

NOTES TO PHYSICIAN:

INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.

This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed

endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Category 2 Flammable Liquid

EXTINGUISHING MEDIA: Use dry chemical, CO2, water spray/fog (not jet), or foam

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons, aldehydes and other products of incomplete combustion.

EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Extinguishing Media

FIRE FIGHTING PROCEDURES: Evacuate any non-essential personnel. Extinguish all ignition sources if safe to do so. Use water to cool exposed containers and structures until fire is out. Avoid spreading burning material with water used for cooling purposes.

FIRE FIGHTING EQUIPMENT: Full Bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Eliminate all sources of ignition. Take up small spills using non-combustible absorbent material. Transfer to proper disposal container.

LARGE SPILL: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite). Transfer contaminated absorbent, soil and other materials to containers for proper disposal according to all Federal, State, and Local ordinances.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Do not allow spill to enter drains, sewers or waterways.

COMMENTS: Take proper precautions to ensure your own health and safety before attempting spill control or clean-up.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid breathing and contact with material. Only use in well ventilated areas. Wash thoroughly after handling. Use the information in this data sheet to assess risks in local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

HANDLING: Avoid ignition sources (flame, spark, smoking, etc) in use or handling areas. Use explosion proof electrical equipment. Ensure proper electrical grounding procedures are in place. Provide sufficient ventilation. Always wear proper personal protection equipment when handling.

STORAGE: Store container in a cool, well-ventilated approved area. Keep container away from sparks and other ignition sources. Keep container tightly closed until ready to use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
	EXPOSURE LIMITS			
Chemical Name	**Type**		**ppm**	**mg/m³**
Toluene	**OSHA PEL**	**TWA**	200 (8 hours)	375 (8 hours)
		STEL	150 [1]	560 [1]
	ACGIH TLV	**TWA**	20	75
Footnotes: **1**. Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift :500 ppm				

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles and/or face shield. Always use proper eye protection around the work area.

SKIN: Avoid skin contact. Use heavy duty gloves made of Viton or heavy nitrile rubber. Wash hands with plenty of mild soap and water. Wear long-sleeved resistant clothing, remove and discard contaminated clothing immediately.

RESPIRATORY: Vapor respirator may be required if exposure limits are exceeded. Use a NIOSH approved respirator or equivalent when required. Proper mechanical ventilation should be installed to ensure the exposure levels are below the allowable thresholds (PEL/TLV).

PROTECTIVE CLOTHING: Clothing should be applicable for the job at hand to protect the skin from repeated exposure to the material.

WORK HYGIENIC PRACTICES: Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid.

ODOR: Sweet, Aromatic odor.

ODOR THRESHOLD: No data available.

APPEARANCE: Transparent

COLOR: Colorless

pH: No data available.

PERCENT VOLATILE: No data available.

FLASH POINT AND METHOD: 4°C (39°F) Closed Cup

FLAMMABLE LIMITS: 1.2% to 7%

AUTOIGNITION TEMPERATURE: 536°C (997°F)

VAPOR PRESSURE: 3.2 kPa at 20°C

VAPOR DENSITY: 3 (Air =1)

BOILING POINT: 109°C (228°F) to 111°C (232°F)

FREEZING POINT: No data available.

MELTING POINT: -95°C (-139°F)

POUR POINT: No data available.

SOLUBILITY IN WATER: Soluble

PARTITION COEFFICIENT: N-OCTANOL/WATER: No data available.

EVAPORATION RATE: No data available.

DENSITY: No data available.

SPECIFIC GRAVITY: 0.87 (Water = 1)

VISCOSITY #1: < 3 cSt at 40°C

MOLECULAR WEIGHT: 92.14

(VOC): 872.000 g/L

OXIDIZING PROPERTIES: No data available.

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

STABILITY: This product is stable under normal conditions of storage and use.

CONDITIONS TO AVOID: Keep away from heat, flame and other potential ignition sources. Keep away from strong oxidizing conditions and agents.

POSSIBILITY OF HAZARDOUS REACTIONS: Vapors may form explosive mixture with air.

HAZARDOUS DECOMPOSITION PRODUCTS: No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS.

INCOMPATIBLE MATERIALS: Strong acids, alkalies, and oxidizers such as liquid chlorine, other halogens, hydrogen peroxide and oxygen.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
Toluene	> 5580 mg / kg (Rat)	12196 mg / kg (Rabbit)	12500 to 28800 mg/L (4h)

CARCINOGENICITY

NOTES: Not considered carcinogenic by OSHA, NTP, or IARC.

STOT-SINGLE EXPOSURE: Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene., Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has beensuggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible liver effects, mild, reversible kidney effects, respiratory tract damage (nose, throat, and airways), effects on hearing, central nervous system damage, Overexposure to this material (or

its components) has been suggested as a cause of the following effects in humans:, kidney damage

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION: Biodegradable.

AQUATIC TOXICITY (ACUTE)

96-HOUR LC_{50}: 7.63 mg / L (Rainbow Trout)

48-HOUR EC_{50}: 8.0 mg/L (Water Flea)

96-HOUR EC_{50}: 10 mg/L (Algae)

Notes: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be in accordance with all Federal, State, and local regulations. Empty containers may still be considered dangerous due to residual vapors/liquid/dust.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Toluene

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1294

PACKING GROUP: II

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 1000 Pounds

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Toluene

UN NUMBER: 1294

HAZARD CLASS: 3

PACKING GROUP: II

AIR (ICAO/IATA)

SHIPPING NAME: Toluene

UN/NA NUMBER: 1294

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II

VESSEL (IMO/IMDG)

SHIPPING NAME: Toluene

UN/NA NUMBER: 1294

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Toluene

UN/NA NUMBER: 1294

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Fire Hazard, Immediate (acute) Health Hazard, Chronic (Delayed) Health Hazard.

FIRE: Yes **PRESSURE GENERATING:** Yes **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Toluene; 100% (CAS# :108-88-3)

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 1000 pounds

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All items are TSCA listed

REGULATIONS

STATE REGULATIONS: New Jersey, Pennsylvania, Massachusetts

CALIFORNIA PROPOSITION 65: WARNING! This product contains a chemical known to the State of California to cause cancer: Ethylbenzene, Benzene, Cumene. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: Toluene, Benzene.

CLEAN WATER ACT: Discharges or spills above the Reportable Quantity (RQ) of this material onto or in waters of the United States, adjoining shorelines, or into conduits leading to surface waters of the US without proper Federal or State permits should be reported to the National Response Center at (800) 424-8802.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Listed.

WHMIS CLASS: Class B-2: Flammable liquid with a flash point lower than 37.8□C (100□F).
Class D-2A: Material causing other toxic effects (VERY TOXIC). - Teratogenic Effects
Class D-2B: Material causing other toxic effects (TOXIC). - Skin irritation

DOMESTIC SUBSTANCE LIST (INVENTORY): All components are listed.

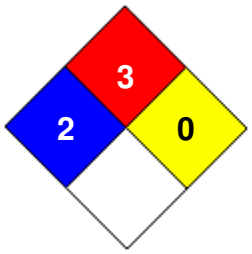
16. OTHER INFORMATION

PREPARED BY: BC **Date Prepared:** 03/18/2014

HMIS RATING

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		

NFPA CODES



HMIS RATINGS NOTES: The customer is responsible for determining the PPE code for this material.

MANUFACTURER DISCLAIMER: This information is compiled from sources believed reliable as of the date of issue, it is provided in good faith and correct to the best of our knowledge. No warranty, guarantee, or representation is made as to the sufficiency of the information for the safe use of the product nor to relieve the end user of their own Federal, State, and local regulatory compliance requirements.