

# SAFETY DATA SHEET



**Date Issued :** 10/20/2009

**MSDS No :** 28241

**Date-Revised :** 7/19/2013

**Revision No :** 3

## VioFuel

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** VioFuel

**GENERAL USE:** Authorized uses are listed in 27 CFR 21.24(b).

**PRODUCT CODE:** 28241

#### MANUFACTURER

Tarr Acquisition, LLC

4115 W. Turney Ave.

Phoenix, AZ 85019

**Service Number:** 602-233-2000

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (US Transportation) :**(800) 424 - 9300

**CANUTEC (Canadian Transportation) :**(613) 996 - 6666

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**IMMEDIATE CONCERNS:** DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Can cause severe lung damage and may be fatal if swallowed. Causes skin irritation. May be harmful if swallowed. May cause CNS depression.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness, swelling and eye damage.

**SKIN:** Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

**INGESTION:** Ingestion of excessive quantities may cause irritation of the digestive tract and signs of nervous system depression (headache, drowsiness, dizziness, loss of coordination and fatigue). Harmful: may cause lung damage if swallowed.

**INHALATION:** May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.

**SKIN:** Skin irritations signs and symptoms may include a burning sensation, redness, swelling and/or blisters.

**INGESTION:** If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.

**INHALATION:** Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose

## VioFuel

and throat, coughing, and/or difficulty breathing. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

**ACUTE TOXICITY:** Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, and nausea.

**MEDICAL CONDITIONS AGGRAVATED:** Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product.

**TARGET ORGAN STATEMENT:** Cardiovascular system. Central nervous system (CNS).

**COMMENTS HEALTH:** Possibility of organ or organ system damage from prolonged exposure. Refer to toxicology section 11 for detailed information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS
Ethanol	92 - 97	64-17-5	200-578-6
Solvent naphtha, light aliphatic	3 - 8	64742-89-8	265-192-2

### 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, contact a physician.

**SKIN:** Wash with soap and water for at least 15 minutes. Get medical attention, if irritation develops or persists.

**INGESTION:** DO NOT INDUCE VOMITING. Do not attempt to give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**NOTES TO PHYSICIAN:** Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal.

### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use "alcohol resistant" foam, dry chemical, or CO<sub>2</sub>. Water may be ineffective, but water applied as a spray can absorb some of the fire's heat and should be used to keep fire-exposed containers cool.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

**EXPLOSION HAZARDS:** When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

**FIRE FIGHTING PROCEDURES:** WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Product will float and can be reignited on surface water. Vapors are heavier than air. Vapors may travel across the ground and distant ignition is possible. Keep adjacent containers cool by spraying with water. Do not use water in a

## VioFuel

jet.

**FIRE FIGHTING EQUIPMENT:** Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

### 6. ACCIDENTAL RELEASE MEASURES

#### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802.

**LAND SPILL:** This material is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not be reportable under CERCLA.

**AIR SPILL:** Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Vapor may form an explosive mixture with air. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800) 424-8802.

**GENERAL PROCEDURES: WARNING.** Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

### 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

**HANDLING:** Avoid contact with skin, eyes, and clothing. Extinguish any naked flames. Do Not smoke. Remove ignition sources. Avoid sparks. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (less than or equal to 1 m/sec until fill pipe submerged to twice its diameter, then less than or equal to 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Handle an open container with care in a well-ventilated area. Ventilate workplace in such a way that the Permissible Exposure Limit is not exceeded. Do not empty into drains.

**STORAGE:** Must be stored in a diked, well-ventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked.

**STORAGE TEMPERATURE:** Ambient

**SHELF LIFE:** Maximum storage time: 6 months

**COMMENTS:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## VioFuel

## EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Ethanol	TWA	1000	1900	1000	1884	400	980
	STEL					400	1,225
Solvent naphtha, light aliphatic		TWA	[1]	[1]		100 [2]	400 [2]

**OSHA TABLE COMMENTS:**

1. Our supplier has adopted, as Interim Standards, the OSHA PELs that were established in 1989 and later rescinded.
2. In the absence of occupational exposure standards for this product, it is recommended that these values are adopted.

**ENGINEERING CONTROLS:** Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Use chemical safety goggles and full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

**SKIN:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapors. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

**PROTECTIVE CLOTHING:** Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

**OTHER USE PRECAUTIONS:** 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.

**COMMENTS:** May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**VioFuel**

Chemical Name	Flash Point (°C)	Solubility in Water	Specific Gravity
Solvent naphtha, light aliphatic	-7	Solubility negligible in water.	0.743

**PHYSICAL STATE:** Liquid

**ODOR:** Alcohol odor.

**APPEARANCE:** Colorless to light yellow liquid. May be slightly hazy.

**pH:** Not Applicable

**PERCENT VOLATILE:** 100

**FLASHPOINT AND METHOD:** (55°F) to (64°F) Tagliabue Closed Cup

**FLAMMABLE LIMITS:** 0.033 to 7.0 % (V)

**AUTOIGNITION TEMPERATURE:** (608°F) to (685°F)

**VAPOR PRESSURE:** No data available.

**VAPOR DENSITY:** Heavier than air.

**BOILING POINT:** (173°F) to (302°F)

**FREEZING POINT:** NDA = no data available.

**SOLUBILITY IN WATER:** Partially Soluble

**EVAPORATION RATE:** Slower than Butyl Acetate.

**DENSITY:** 6.595

**SPECIFIC GRAVITY:** 0.74 to 0.80 at 15.6°C (60.°F)

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

**INCOMPATIBLE MATERIALS:** This product is incompatible with strong acids or bases, oxidizers, alkali metals, and halogens.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Solvent naphtha, light aliphatic	> 2000 mg/kg (Rat)	> 2000 mg/kg (rat)	> 5000 ppm / 1 hour (rat)

**DERMAL LD<sub>50</sub>:** > 2000 mg/kg (rat)

## VioFuel

**Notes:** Results for solvent naphtha, light aliphatic.

**ORAL LD<sub>50</sub>:** > 2000 mg/kg (rat)

**Notes:** Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. The information listed is for product Solvent Naphtha, light aliphatic.

**INHALATION LC<sub>50</sub>:** > 5000 ppm/1 hour, Rat

**Notes:** Inhalation LC50 for solvent naphtha, light aliphatic: greater than 5000 ppm/1 hour, Rat.

**EYE EFFECTS:** Expected to be non-irritating to eyes.

**SKIN EFFECTS:** Irritating to skin.

**CHRONIC:** Cardiovascular system: Chronic abuse of similar materials has been associated with irregular heart rhythms and cardiac arrest. Central nervous system: Repeated exposure affects the nervous system. Kidney: caused kidney effects in male rats which are not considered relevant to humans.

### CARCINOGENICITY

Chemical Name	IARC Status
Ethanol	1

**IARC:** Xylene, Mixed Isomers: IARC 3: Classification not possible from current data.

**Notes:** Xylene, Mixed Isomers: ACGIH Group A4: Not classifiable as a human carcinogen.

**SENSITIZATION:** Not expected to be a skin sensitizer.

**REPRODUCTIVE EFFECTS:** This product contains ethanol. Alcoholic beverage consumption has been associated with birth defects in humans. The relevance of this finding to ethanol exposure in industrial environments is uncertain.

**TARGET ORGANS:** This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain.

**COMMENTS:** Our supplier reports that information given is based on product testing, and/or similar products and/or components.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Solvent naphtha, light aliphatic, a constituent in this product, absorbs to soil and has low mobility. Readily biodegradable. Oxidizes rapidly by photo-chemical reactions in air. At least one ingredient is biologically not degradable.

**ECOTOXICOLOGICAL INFORMATION:** Solvent Naphtha, Light Aliphatic Acute Toxicity - Fish and Aquatic Invertebrates: Harmful: 10 less than LC/EC/IC50 less than or equal to 100 mg/l Algae: Low toxicity: LC/EC/IC50 greater than 100 mg/l.

**GENERAL COMMENTS:** Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump

## VioFuel

into sewers, ground, or any body of water.

**PRODUCT DISPOSAL:** Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

**EMPTY CONTAINER:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

**RCRA/EPA WASTE INFORMATION:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

### 14. TRANSPORT INFORMATION

#### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Ethanol Solutions (Ethanol, VM&P Naphtha)

**PRIMARY HAZARD CLASS/DIVISION:** 3

**UN/NA NUMBER:** UN 1170

**PACKING GROUP:** II

**NAERG:** 127

**LABEL:** Flammable liquid

### 15. REGULATORY INFORMATION

#### UNITED STATES

#### DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



Flammable Liquid

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** This product should be reported as an immediate (acute) health hazard, and a fire hazard.

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

**313 REPORTABLE INGREDIENTS:** Xylenes, mixed isomers (1330-20-7) 0.13%

meta-Xylene (108-38-3) 0.05%

ethyl benzene (100-41-4) 0.03%

toluene (108-88-3) 0.015%

benzene (71-43-2) 0.0118%

May also be reportable under Glycol Ethers.

#### 302/304 EMERGENCY PLANNING

**EMERGENCY PLAN:** To the best of our knowledge, this product is not listed as an extremely hazardous



**VioFuel**

substance.

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

**CERCLA RQ:** Solvent naphtha, light aliphatic (CAS 64742-89-8) Reportable quantity: 66,667 lbs.,  
 Xylene, Mixed Isomers (CAS 1330-20-7) Reportable quantity: 100 lbs.  
 meta-Xylene (CAS 108-38-3) Reportable quantity: 1,000 lbs.  
 Ethylbenzene (CAS 100-41-4) Reportable quantity: 1,000 lbs.  
 Benzene (CAS 71-43-2) Reportable quantity: 10 lbs.  
 Toluene (CAS 108-88-3) Reportable quantity: 1,000 lbs.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

Chemical Name	CAS
Solvent naphtha, light aliphatic	64742-89-8

**TSCA REGULATORY:** All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements under CFR 40 CFR 720.30.

**TSCA STATUS:** Listed.

**CALIFORNIA PROPOSITION 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause cancer.: Ethylbenzene (100-41-4) 0.03%, Benzene (71-43-2) 0.015%.

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause birth defects or other reproductive harm.: Benzene (71-43-2) 0.015%, Toluene (108-88-3) 0.0118%.

**CLEAN WATER ACT:** Xylene, Mixed Isomers (CAS 1330-20-7) Reportable quantity: 100 lbs.  
 meta-Xylene (CAS 108-38-3) Reportable quantity: 100 lbs.  
 Ethylbenzene (CAS 100-41-4) Reportable quantity: 1,000 lbs.  
 Benzene (CAS 71-43-2) Reportable quantity: 10 lbs.  
 Toluene (CAS 108-88-3) Reportable quantity: 1,000 lbs.

Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802. The components with RQs are given for information.

**CANADA**

**DOMESTIC SUBSTANCE LIST (INVENTORY):** Listed.

**GENERAL COMMENTS:** The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

**16. OTHER INFORMATION**

**PREPARED BY:** COMPLIANCE DEPT.

**REVISION SUMMARY:** This MSDS replaces the 4/19/2012 MSDS. Revised: **Section 14:** DOT (DEPARTMENT OF TRANSPORTATION) - PROPER SHIPPING NAME.

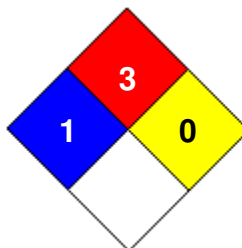


## VioFuel

## HMIS RATING

<b>HEALTH</b>	<input type="checkbox"/>	<b>2</b>
<b>FLAMMABILITY</b>	<input type="checkbox"/>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<input type="checkbox"/>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<input type="checkbox"/>	<b>H</b>

## NFPA CODES



**HMIS RATINGS NOTES:** The HMIS rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in the SDS must be considered. Personal protection rating to be supplied by user depending on use conditions.

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