

# MATERIAL SAFETY DATA SHEET

## SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier <b>OLEIC ACID – TROL700, TROL710, TROL700C</b>		[HMIS Classification] Health - 1 Flammability - 0 Physical Hazard - 0	
Product Use Industrial Applications			
Manufacturer's Name Twin Rivers Technologies		Supplier's Name Twin Rivers Technologies	
Street Address 780 Washington Street		Street Address 780 Washington Street	
City Quincy	Province MA	City Quincy	Province MA
Postal Code 02169	Emergency Telephone 617-413-5339	Postal Code 02169	Emergency Telephone 617-413-5339
Date MSDS Prepared March 23, 2010	MSDS Prepared By Twin Rivers Technologies		Phone Number 617-472-9200

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients ( <i>specific</i> )	%	CAS Number	LD <sub>50</sub> of Ingredient ( <i>specify species and route</i> )	LC <sub>50</sub> of Ingredient ( <i>specify species</i> )
9-Octadecenoic Acid	70	112-80-1	Oral, rat LD50: >21.5 ml/kg	

Route of Entry     Skin Contact     Skin Absorption     Eye Contact     Inhalation     Ingestion

[Emergency Overview]


## SECTION 3 — HAZARDS IDENTIFICATION

Heated product may cause thermal burns if contacted.

### Potential Health Effects

Eyes - Accidental over-exposure to the eyes will cause only a mild but transient irritation

Skin - Avoid prolonged contact with the skin. Wash skin with soap & water.

Inhalation - of vapors and fumes- Not applicable @ room temp.

Ingestion - May cause irritation of gastrointestinal tract

## SECTION 4 — FIRST AID MEASURES

### Skin Contact

Avoid prolonged contact with the skin. Wash skin with soap & water.

### Eye Contact

If instilled in the eyes, rinse thoroughly with water for at least 15 minutes.

### Inhalation

Remove to fresh air.

### Ingestion

Remove material from mouth. Obtain medical attention immediately

### SECTION 5 — FIRE FIGHTING MEASURES

Flammable <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, under which conditions?	
Means of Extinction Use CO2 or dry chemical for small fires. Use foam for large fires.			
Flashpoint (° C) and Method ASTM D 92 > 356 Deg F.		Upper Flammable Limit (% by volume) N/A	Lower Flammable Limit (% by volume) N/A
Autoignition Temperature (°C) N/A		Explosion Data — Sensitivity to Impact N/A	Explosion Data — Sensitivity to Static Discharge N/A
Hazardous Combustion Products Keep away from sparks and flames.			
[NFPA] Protective clothing and self-contained breathing equipment should be available for firefighters.			

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures
Neutralization not required, Sweep or soak up with absorbent material such as paper, rags or sawdust. Dispose as any grease or oily material. Dispose of absorbent clays such as "Speedy Dry" in a flame resistant container.

### SECTION 7 — HANDLING AND STORAGE

Handling Procedures and Equipment
Should be stored in resin-lined steel, aluminum, stainless steel. or reinforced fiberglass vessels. Keep away from sparks and flames.
Storage Requirements

### SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> OSHA PEL <input type="checkbox"/> Other (specify)
Specific Engineering Controls (such as ventilation, enclosed process)
Local exhaust - preferred
Mechanical - may be necessary if working at elevated temperatures or in enclosed areas.
Personal Protective Equipment    x Gloves    Respirator      XEye      Footwear      Clothing <input type="checkbox"/> Other
If checked, please specify type Goggles, safety glasses or Face shield. Rubber or plastic gloves. Have eye bath and safety shower nearby.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Physical State Liquid	Odour and Appearance Water white to yellowish: musty fatty odor.	Odour Threshold (ppm) N/A
Specific Gravity @ 20/25 Deg C. 0.90	Vapour Density (air = 1) not known	Vapour Pressure (mmHg) @ 68 Deg F. Less than 0.75 MM Hg
Evaporation Rate N/A	Boiling Point (° C) 760 mm Hg over 500 F.	Freezing Point (° C) not known
pH N/A	Coefficient of Water/Oil Distribution N/A	[Solubility in Water] Negligible @ 72 Deg.F.

**SECTION 10 — STABILITY AND REACTIVITY**

Chemical Stability  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, under which conditions? Stable under normal conditions
Incompatibility with Other Substances  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, which ones? Avoid strong oxidizing agents
Reactivity, and under what conditions?	
Hazardous Decomposition Products	
Does not decompose up to 400 Deg.F. Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide. Hazardous polymerization will not occur.	

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Effects of Acute Exposure	
No harmful effects expected	
Effects of chronic exposure	
No harmful effects expected	
Irritancy of Product Mild irritation	
Skin sensitization Mild irritation	Respiratory sensitization Mild irritation
Carcinogenicity-IARC None	Carcinogenicity - ACGIH None
Reproductive toxicity None	Teratogenicity None
Embrototoxicity None	Mutagenicity None
Name of synergistic products/effects None	

**SECTION 12 — ECOLOGICAL INFORMATION**

[Aquatic Toxicity]

Fathead minnows 96h LC50 205 mg/l  
 Goldfish lethal dose: 8 mg/l (sodium salt)  
 Red killifish 96h LC50 217 mg/l (sodium salt)

**SECTION 13 — DISPOSAL CONSIDERATIONS**

Waste Disposal

DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS.

Do not dispose of via sinks, drains or into the immediate environment.

**SECTION 14 — TRANSPORT INFORMATION**

Special Shipping Information

None

Not classified in RID/ADR - ADNR - IMDG - ICAO/IATA - DGR

PIN

TDG

[DOT]

Not regulated for transport

[IMO]

[ICAO]

**SECTION 15 — REGULATORY INFORMATION**

[WHMIS Classification]

[OSHA]

[SERA]

[TSCA]

*This product has been classified in accordance with the hazard criteria of the  
 Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.*

**SECTION 16 — OTHER INFORMATION**

The submission of this MSDS may be required by law but this is not an assertion that this substance is hazardous when used in accordance with proper safety practices and normal handling procedures.

**INVENTORY STATUS:**

9-Octadecenoic acid (Z)- TSCA, EINECS, DSL, AUSTRALIA, KOREA, ENCS, PHILIPPINES, CHINA

WGK water class 1-slightly water endangering

EU Classification: This product is not classified as dangerous according to Directive 67/548/EEC