

**SECTION 1: IDENTIFICATION**

**1.1. Product Identifier**

**Product Name:** Enviro-Safe Oil Concentrate & VS

**Synonyms:** Synthetic Base Stocks and Additives

**1.2. Intended Use of the Product**

**Use of the substance/mixture:** Lubricant, Compressor Lubricant , Refrigeration Lubricant

**1.3. Name, Address, and Telephone of the Responsible Party**

**Company**

Enviro-Safe Refrigerants, Inc.

400 Hanna Drive

Pekin, IL 61554

309-346-1110

**1.4. Emergency Telephone Number**

**Emergency Number** : 1-800-424-9300

CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the Substance or Mixture**

**Classification (GHS-US)**

Not classified

**2.2. Label Elements**

**GHS-US Labeling**

No labeling applicable

**2.3. Other Hazards**

This material is a static accumulator. This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

**2.4. Unknown Acute Toxicity (GHS-US)**

No data available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Product Identifier	%	Classification (GHS-US)
Ester Oil	-	100	Not classified

Full text of H-phrases: see section 16

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of First Aid Measures**

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion:** Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms/Injuries:** May cause slight irritation to eyes, respiratory tract, and/or skin.

**Symptoms/Injuries After Inhalation:** Inhalation of vapors may cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** May cause mild skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause minor eye irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

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**Chronic Symptoms:** Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals. Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but will burn at high temperatures.

**Explosion Hazard:** Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

**Reactivity:** Reacts with strong oxidants causing fire and explosion hazard.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Fight fire from safe distance and protected location.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus when fighting fire in an enclosed area.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray). Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Stop leak if safe to do so. Eliminate ignition sources. Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

### 6.2. Environmental Precautions

Do not allow to enter drains or water courses. Avoid release to the environment. Contact competent authorities after a spill.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:**

**Land Spill:** Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

**Note:** Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. **Note:** Local regulations may prescribe or limit action to be taken.

**Methods for Cleaning Up:** Use only non-sparking tools. Ventilate area. Collect absorbed material and place into a sealed, labelled container for proper disposal. Do not take up in combustible material such as: saw dust or cellulosic material.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Container remains hazardous when empty. Continue to observe all precautions.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Ensure all national/local regulations are observed.

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**Storage Conditions:** Store in a dry, cool and well-ventilated place. Store away from other materials. Keep container tightly closed. Store in properly labelled containers.

**Incompatible Products:** Strong acids, strong bases, strong oxidizers.

**Prohibitions On Mixed Storage:** Keep away from (strong) bases.

**7.3. Specific End Use(s)** Lubricant, Compressor Lubricant, Refrigeration Lubricant

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Enviro-Safe Oil Concentrate & VS		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (TLV)
USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated above. All electrical equipment should comply with the National Electric Code.

#### Personal Protective Equipment

: Safety glasses. Gloves. Protective clothing.



#### Hand Protection

: Wear protective gloves. Gloves should be selected based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves.

#### Eye Protection

: Chemical goggles or safety glasses.

#### Skin and Body Protection

: Wear suitable protective clothing.

#### Respiratory Protection

: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements and NIOSH standards. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear colorless to pale yellow
Odor	: Characteristic
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: -27 °C or below (-16.60 °F)
Freezing Point	: No data available
Boiling Point	: > 200 °C (392.00 °F)
Flash Point	: > 230 °C Flash Point ASTM D92 (open cup typical) (446.00 °F)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: < 0.013 kPa (0.1 mm Hg) at 20 °C (68 °F)
Relative Vapor Density at 20 °C	: No data available

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<b>Relative Density</b>	: 0.96 - 0.992 at 20 °C (68 °F)
<b>Solubility</b>	: Not soluble in water.
<b>Partition Coefficient: N-octanol/water</b>	: No data available
<b>Viscosity</b>	: 95 cSt

**9.2. Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Reacts with strong oxidants causing fire and explosion hazard.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Sparks, heat, open flame and other sources of ignition. Incompatible materials.
- 10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers.
- 10.6. Hazardous Decomposition Products:** Material does not decompose at ambient temperatures. At high temperatures, it may produce smoke, fume, hydrocarbons, carbon oxides, and aldehydes.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

**Acute Toxicity:** Not classified

Ester Oil	
<b>LD50 Oral Rat</b>	> 2000 mg/kg
<b>LD50 Dermal Rat</b>	> 2000 mg/kg
<b>LD50 Dermal Rabbit</b>	> 2000 mg/kg
<b>LC50 Inhalation Rat</b>	> 5 mg/l/4h

**Skin Corrosion/Irritation:** Not classified. Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.

**Serious Eye Damage/Irritation:** Not classified. May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified (Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals. Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.)

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Inhalation of vapors may cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** May cause mild skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause minor eye irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals. Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Enviro-Safe Oil Concentrate & VS	
<b>LC50 Fish 1</b>	> 5 g/l (LL <sub>50</sub> )

### 12.2. Persistence and Degradability

Enviro-Safe Oil Concentrate & VS	
<b>Persistence and Degradability</b>	Inherently biodegradable.

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## 12.3. Bioaccumulative Potential

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Bioaccumulative Potential	The potential for bioaccumulation seems negligible based on data from other similar material and the biodegradability. It is unlikely to breakdown or remain in the air, but rather become adsorbed to the soil and sediments and thus not be available to biota.

## 12.4. Mobility in Soil

Enviro-Safe Oil Concentrate & VS	
Mobility In Soil	Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

## 12.5. Other Adverse Effects

No additional information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Dispose of waste material in accordance with all local, regional, national, and international regulations.

**Additional Information:** Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. 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.

## SECTION 14: TRANSPORT INFORMATION

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

**15.1 US Federal Regulations** Complies with TSCA inventory requirements.

**15.2 US State Regulations** No ingredients present on state lists from CA, PA, MN, MA, FL, or NJ.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 03/19/2015

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)