

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** ECOSE® Rail ZF-9 (SAE 40)  
 ECOSE® Rail ZF-9 MG (SAE 20W-40)

**Other means of identification:** Railroad Engine Oil

**SDS Number:** 535615

**CAS Number:** Blend

**CHEMTREC:** 1-800-424-9300 (For emergencies)

**Supplier:**

Nu-Tier Brands, Inc.  
 8282 S. Memorial Dr., Suite 302  
 Tulsa, OK 74133  
 1-877-771-5823 (For Product Information)  
[www.nu-tierbrands.com](http://www.nu-tierbrands.com)

### 2. HAZARDS IDENTIFICATION

**Classified Hazards**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**Other Hazards**

None Known

**Label Elements**

No classified hazards

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	Concentration
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	20-35%
Petroleum distillates, hydrotreated heavy naphthenic	64742-52-5	5-60%
Residual oils (petroleum), solvent dewaxed	64742-62-7	10-55%
Highly refined Mineral oil (C15-C50)	Not Available	3-7%

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### 4. FIRST AID MEASURES

**INHALATION FIRST AID:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

**SKIN CONTACT FIRST AID:** Wash with soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if needed.

**EYE CONTACT FIRST AID:** Flush with water for several minutes. If effects occur, consult a physician.

**INGESTION FIRST AID:** Rinse mouth with water. If symptoms develop, obtain medical attention.

### 5. FIREFIGHTING MEASURES

**NFPA 704 Hazard Class**

Health: 1      Flammability: 1      Instability: 0



0 (Minimal)  
 1 (Slight)  
 2 (Moderate)  
 3 (Serious)  
 4 (Severe)

**Flash Point Minimum:** 450°F (232°C)  
**Flash Point Test Method:** Cleveland Open Cup (COC)

**Extinguishing Media:** Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F/100°C. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

**Specific hazards arising from the chemical:**

**Unusual Fire & Explosion Hazards:** This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire.

**Hazardous Combustion Products:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of sulfur, nitrogen or phosphorus may also be formed.

**Special protective actions for firefighters:** For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

**Methods and Materials for Containment and Clean Up:**

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal. There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product.

### 7. HANDLING AND STORAGE

**Precautions for Safe Handling:**

Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. These products have a low vapor pressure and are not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, do not breathe the vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

**Conditions for Safe Storage, Including Any Incompatibilities:**

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

**Incompatibilities:**

Avoid acids, oxidizing materials, chlorates, nitrates, and peroxides.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits:**

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

**Appropriate Engineering Controls:**

Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls.

**Individual Protective Measures, such as Personal Protective Equipment:**

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: gloves, safety glasses, and lab coat or apron.

**Eyes/Face Protection:**

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

**Skin Protection:**

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC) or equivalent gloves is not recommended.

**Respiratory Protection:**

No respiratory protection is normally required. Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Note: Data represents typical values and are not intended to be specifications.**

<p><b>Appearance/Odor :</b> Amber liquid, petroleum odor.</p> <p><b>Boiling Point:</b> ~475°F (246°C) (minimum)</p> <p><b>Solubility (H2O):</b> Insoluble</p> <p><b>Density:</b> 7.4 lb/US gal (890 g/l) approximately</p> <p><b>Evaporation Rate:</b> Not available</p> <p><b>Vapor Pressure:</b> &lt; 0.1 mm Hg @ 68°F</p> <p><b>Flash Point Minimum:</b> 450°F (232°C)</p> <p><b>Flash Point Test Method:</b> Cleveland Open Cup (COC)</p> <p><b>Other Property Information:</b> No additional information is available.</p>	<p><b>pH:</b> Not applicable</p> <p><b>Odor Threshold:</b> Not available</p> <p><b>Melting Point:</b> Not available</p> <p><b>Specific Gravity:</b> 0.89 (water = 1)</p> <p><b>Octanol/H2O Coeff.:</b> Not available</p> <p><b>Viscosity:</b> 120-160 mm<sup>2</sup>/s @ 40°C; 11.0-17.0 mm<sup>2</sup>/s @ 100°C</p>
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### 10. STABILITY AND REACTIVITY

**REACTIVITY:** Not chemically reactive.

**CHEMICAL STABILITY:** Stable under normal ambient and anticipated conditions of use.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous reactions not anticipated.

**CONDITIONS TO AVOID:** Avoid all possible sources of ignition. Extended exposure to high temperatures can cause decomposition.

**INCOMPATIBLE MATERIALS:** Avoid contact with strong oxidizing agents and strong reducing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Not anticipated under normal conditions of use.

### 11. TOXICOLOGICAL INFORMATION

**TOXICITY DATA AND INFORMATION:**

**Component Analysis - LD50/LC50**

**Lubricating oils, petroleum, hydrotreated spent (64742-58-1):**

Dermal LD50 Rabbit >4480 mg/kg; Oral LD50 Rat >2000 mg/kg

**Residual oils (petroleum), solvent dewaxed (64742-62-7):**

Dermal LD50 Rabbit >2000 mg/kg; Inhalation LC50 Rat 2.18 mg/L 4 h; Oral LD50 Rat >5000 mg/kg

**Highly refined Mineral oil (C15-C50) (Not Available):**

Inhalation LC50 Rat 2062 ppm 4 h (related to Oil mist, mineral)

**INFORMATION ON LIKELY ROUTES OF EXPOSURE:**

**Inhalation:**

No information on significant adverse effects.

**Ingestion:**

May be harmful if swallowed.

**Skin Contact:**

Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

**Eye Contact:**

No information on significant adverse effects.

**Immediate Effects:**

No information on significant adverse effects.

**Delayed Effects:**

No information on significant adverse effects.

**Irritation/Corrosivity:**

May cause slight skin and respiratory irritation.

**Respiratory Sensitization:**

No information available for the product.

**Skin Sensitization:**

No information available for the product.

**CARCINOGENICITY:**

**Component Carcinogenicity:**

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

**Germ Cell Mutagenicity:**

No information available for the product.

**Teratogenicity:**

No information available for the product.

**Reproductive Effects:**

No epidemiological data is available for this product.

**Specific Target Organ Effects - Single Exposure:**

No information on significant adverse effects.

**Specific Target Organ Effects - Repeated Exposure:**

No information on significant adverse effects.

**Aspiration Hazard:**

No data available.

**Medical Conditions Aggravated by Exposure:**

Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

**12. ECOLOGICAL INFORMATION**

**ECOTOXICITY:**

Toxic to aquatic life.

**Component Analysis - Ecotoxicity - Aquatic Toxicity:**

**Lubricating oils, petroleum, hydrotreated spent (64742-58-1)**

Duration/Test/Species	Concentration/Conditions
96 Hr LC50 Brachydanio rerio	79.6 mg/L [semi-static]
96 Hr LC50 Pimephales promelas	3.2 mg/L [semi-static]

**Petroleum distillates, hydrotreated heavy naphthenic (64742-52-5)**

**Duration/Test/Species**

96 Hr LC50 Oncorhynchus mykiss  
48 Hr EC50 Daphnia magna

**Concentration/Conditions**

>5000 mg/L  
>1000 mg/L

**Residual oils (petroleum), solvent dewaxed (64742-62-7)**

**Duration/Test/Species**

96 Hr LC50 Oncorhynchus mykiss  
48 Hr EC50 Daphnia magna

**Concentration/Conditions**

>5000 mg/L  
>1000 mg/L

**PERSISTENCE AND DEGRADABILITY:**

No information available for the product.

**BIOACCUMULATION POTENTIAL:**

No information available for the product.

**MOBILITY IN SOIL:**

No information available for the product.

**OTHER ADVERSE EFFECTS:**

No additional information is available.

### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS:**

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it can be managed in accordance with the used oil exemption under 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of these products.

### 14. TRANSPORTATION INFORMATION

**TRANSPORTATION REGULATIONS:**

**DOT Shipping Name:** Not regulated as a hazardous material for transportation.

**TDG Shipping Name:** Not regulated as a dangerous good for transportation.

### 15. REGULATORY INFORMATION

**Volatile Organic Compounds (As Regulated):**

Negligible; As per 40 CFR Part 51.100(s)

**Federal Regulations:**

**SARA 302/304**

**Component Analysis**

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA 311/312 Hazardous Categories**

**Acute Health:** No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

**SARA Section 313**

**Component Analysis**

This product does not contain any "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.



# Rail ZF-9

## SDS - Safety Data Sheet

### **CERCLA**

#### **Component Analysis**

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

#### **TSCA Inventory**

All the components of these products are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

## **16. OTHER INFORMATION**

The data in this Safety Data Sheet relates only to the specific material designated herein.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Nu-Tier Brands, Inc. The data on this sheet are related only to the specific material designated herein. Nu-Tier Brands, Inc. assumes no legal responsibility for use or reliance upon these data.

END OF SDS