

ECO-SAFE™

NONMETALLIC THREAD COMPOUND

DESCRIPTION

ECO-SAFE™ nonmetallic thread compound is a premium quality, nonmetallic compound containing carbon based fibers and additives and other natural extreme pressure and anti-wear additives. These are blended into **JET-LUBE's** high temp calcium complex base grease. This new base grease offers the additional advantage of superior adhesion to wet steel surfaces, resistance to water wash-off, and most drilling muds. **Especially effective for invert or high-pH muds.**

- Excellent performance on high-chrome or nickel alloys
- Contains no metals
- NSF H2 Registered
- Extreme-pressure additives provide additional protection against seizing and galling
- Completely biodegradable
- Nontoxic
- High film strength
- High frictional properties ideal for casing drilling applications

With **ECO-SAFE**, "metal free" doesn't mean "low performance". It facilitates a consistent, easy make up on par with traditional thread compounds without the cost volatility and environmental concerns associated with metallic compounds. **ECO-SAFE** offers excellent protection to threaded connections and the environment.

PRODUCT CHARACTERISTICS

Thickener	Calcium Complex
Fluid Type	Petroleum
Dropping Point (ASTM D-2265)	≥450°F (232°C)
Specific Gravity, typical	1.30
Density (lb/gal), typical	10.30
Oil Separation (ASTM D-6184)	<3.0
Wt. % Loss @ 212°F (100°C)	
Flash Point (ASTM D-92)	>430°F (221°C)
NLGI Grade	1
Penetration @ 77°F (ASTM D-217)	300 - 330
Copper Strip Corrosion (ASTM D-4048)	1A, typical
Service Temperature	
Oilfield/Mining/Construction Drilling	-20°F (-29°C) to 500°F (260°C)

Shelf Life: Minimum two years from manufacture date.

PACKAGING

Code No.	Container Size	Container
14523	1 Gal.	Pail
14512	2 Gal.	Pail
14515	5 Gal.	Pail

LIMITED WARRANTY

Jet-Lube, Inc. makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube, Inc. materials and workmanship.

This Limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube, Inc.

The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube, Inc. shall not be liable for incidental or consequential damages.

CORPORATE LOCATIONS

Houston, Texas—World Headquarters

Maidenhead, England

Edmonton, Canada



JET-LUBE, INC.
4849 HOMESTEAD RD.,
SUITE 232
HOUSTON, TX 77028

WATS: 800-538-5823
PHONE: 713-670-5700
FAX: 713-678-4604
sales@jetlube.com
www.jetlube.com

JET-LUBE, INC.

MATERIAL SAFETY DATA SHEET

Crowder Supply Co., Inc. • 8495 Roslyn St., Commerce City, CO 80022 • Toll Free: 888-883-5144 • www.CrowderSupply.com

Product Name: ECO-SAFE™
Chemical Family: Complex grease base
Use: Thread lubricant and sealant, anti-seize compound

Manufacturer/Supplier: JET-LUBE, INC.
Address: 4849 Homestead Rd., Ste. #232
 Houston, TX, 77028 USA **Phone:** 713-670-5700
Emergency Phone: 713-670-5700 **Fax:** 713-678-4604
Chemtrec 24 hours (USA): 800-424-9300
Outside the USA: 703-527-3887

Hazardous Components	CAS No.	Wt%	OSHA PEL	ACGIH TLV	Other Limits of Exposure
Lubricating Grease	74869219	45-50	N/A	N/A	N/A
Nonhazardous Blend	14807966/13463677 7789755	40-60			

Main Hazards—Health Effects

Eyes: May cause irritation. **Inhalation:** Viscous nature may block breathing passages if inhaled. **Ingestion:** May cause diarrhea.
Skin: For hypersensitive persons, may irritate the skin after prolonged periods of contact.

Eyes: Flush with water until all residual material is gone. If irritation persists, seek medical help. **Inhalation:** Clear air passage. If respiratory difficulty continues, seek medical help. **Ingestion:** Wash out mouth immediately. Consult physician. **Skin:** Wash thoroughly with hand cleanser, followed by soap & water. Contaminated clothing should be dry cleaned before reuse.

Extinguishing Media: Foam, dry powder, Halon®, carbon dioxide, sand, earth & water mist. **Unsuitable Extinguishing Media:** Water jet.
Protective Equipment for Fire fighting: Self-contained breathing apparatus.

Personal Precautions: Wear gloves & protective overalls. **Environmental Precautions:** Do not allow it to enter drains. **Spillage:** Scrape up bulk, then wipe up remainder with cloth. To prevent walking hazard, pick up remaining residue with diatomaceous earth.

Handling: No special handling precautions necessary. **Storage:** Do not store at elevated temperatures.

Respiratory Protection: None needed. **Hand Protection:** Protective gloves for hypersensitive persons.
Eye Protection: Glasses, if applied to parts in motion. **Body Protection:** Overalls.

Physical State: Semisolid paste **Color:** Beige **Odor:** Petroleum **pH:** Neutral **Boiling Range/Point °F (°C):** UN
Melting Point °F (°C): >400 (204) **Flash Point (COC) °F (°C):** >430 (221) **Autoignition Temperature °F (°C):** >500 (260)
Explosive Properties: LEL: 0.9% UEL: 7% **Evaporation Rate (Butyl Acetate):** <0.01 **Partition Coefficient (Log Pow):** N/A
Vapor Pressure (kPa): <0.01 **V.O.C. Content:** Nil **Density (g/cm³):** 1.26 **Flammability:** Not flammable at ambient temperature.
OAR Value: N/A **Oxidizing Properties:** None **Water Solubility:** Nil **Vapor Density:** >5

Stability: Chemically stable under normal conditions. No photoreactive agents. **Conditions to Avoid:** Powerful sources of ignition & extreme temps. **Materials to Avoid:** Strong inorganic & organic acids, oxidizing agents. **Hazardous Decomposition Products:** Burning generates smoke, airborne soot, hydrocarbons & oxides of carbon, sulfur & nitrogen. Residue mainly comprised of soot & mineral oxides.

Acute Toxicity: Not known. **Irritancy—Skin:** Very mild. **Skin Sensitization:** Not known. **Subacute/Sub-chronic Toxicity:** Not known.
Genotoxicity: None known. **Chronic Toxicity:** None known. **California Prop 65:** N/A **Carcinogen:** NTP: No IARC: No **OSHA:** No
EC Classification (67/548/EEC): No **Allergens:** None known. **LC-50:** >4000mg/l - extrapolated from component data. **LD-50:** N/A

Possible Effects: None

Behavior: Relatively well behaved. Bioaccumulation potential nil.

Environmental Fate: Highly unlikely to cause widespread contamination. Nontoxic to marine or land organisms.

Product Disposal: Do not incinerate. Contact waste disposal company or local authority for advice.

Container Disposal: Pails without liner—see Product Disposal section above. Pails with plastic liner—pail may only be disposed of via standard waste disposal services, recycled or reused. Liner—see Product Disposal section above.

Not classified as hazardous for transport. **D.O.T.:** Nonhazardous **UN No.:** Nonhazardous **Air Transport (ICAO & IATA):** Nonhazardous
Sea Transport (IMO & IMDG): Nonhazardous **Road & Rail Transport (ADR/RID):** Nonhazardous

Labeling Information: None needed **EC Annex 1 Classification:** Not Applicable. **R Phrases:** R22—harmful if swallowed.

S Phrases: N/A, as known. **Ozone Depleting Chemicals:** N/A **TSCA:** All components are listed. **TSCA 12B Components:** None

WHMIS (Canada): Not controlled. **Canadian DSL:** All components listed. **40 CFR Part 372 (SARA Section 313):** N/A

SARA 311/312: None **CERCLA:** Nonhazardous **RCRA Hazard Class:** Nonhazardous

SDS first issued. SDS data revised. **New Jersey Right To Know:** See Section II

LEGEND

- I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY
- II. COMPOSITION INFORMATION ON INGREDIENTS
- III. HAZARDS IDENTIFICATION
- IV. FIRST AID MEASURES
- V. FIRE FIGHTING MEASURES
- VI. ACCIDENTAL RELEASE MEASURES
- VII. HANDLING AND STORAGE
- VIII. EXPOSURE CONTROL/PERSONAL PROTECTION
- IX. PHYSICAL AND CHEMICAL PROPERTIES
- X. STABILITY AND REACTIVITY
- XI. TOXICOLOGICAL INFORMATION
- XII. ECOLOGICAL INFORMATION
- XIII. WASTE DISPOSAL
- XIV. TRANSPORT INFORMATION
- XV. REGULATORY INFORMATION
- XVI. OTHER INFORMATION

HMIS SYMBOL

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PPI	B

NFPA SYMBOL



Signature: *Donald A. Oldiges*
Prepared by: Donald A. Oldiges
Date Issued: September 29, 2009

As of issue date, the information contained herein is accurate and reliable to the best of JET-LUBE'S knowledge. JET-LUBE® does not warrant or guarantee its accuracy or reliability and shall not be liable for any loss or damage arising out of the use thereof. It is the user's responsibility to satisfy itself that the information offered for its consideration is suitable for its particular use.