

# C-PLATE™

## COPPER RICH COATING

### DESCRIPTION

**C-PLATE™** is specifically designed to aid in the break-in process of freshly-cut threads where platings or coatings are not available, nor desired due to the occupational or environmental hazards of those chemicals. It can also be used in conjunction with plated surfaces for additional protection. **C-PLATE** has low VOC's, as exempted ketones are used as the diluent solvents.

**C-PLATE** provides a durable micro-thin coating of copper to machined surfaces, aiding in preventing galling during the break-in process. The micro-sized copper flakes adhere to the steel, utilizing a high-tech resin that air-cures at room temperature in 4 to 6 hours. With the addition of heat, an even stronger, more durable bond may be achieved. Once cured, **C-PLATE** forms a durable, acid-free, corrosion-resistant finish which may then be burished into the steel surface during the initial work hardening of the threaded connection. The thin copper coating provides a dissimilar metal which acts to prohibit the metal-to-metal contact under bearing loads which may cause galling damage to threaded connections.

- Lead and Zinc free
- Contains no ozone-depleting substances
- Fast evaporating
- Prevents galling during break-in process
- Provides a durable, corrosion-resistant finish on fresh cut threads
- Greaseless, solid-film protective coating
- Acid-free film

### APPLICATIONS

For use on fresh-cut threads, flanges, screws, bolts, bushings, studs, and drill collar and drill pipe connections. Surfaces should be clean and oil-free for best results. Not recommended for aluminum or its alloys.

**C-PLATE** is a major component in a two phase system to prevent galling in stainless steel and other high nickel and non-mag drilling components when used in conjunction with **NCS-30®**, **EXTREME®**, or **KOPR-KOTE®** Drill Collar and Tool Joint Compounds.

### PRODUCT CHARACTERISTICS

Color:	Copper-colored fluid with characteristic solvent odor
Appearance:	Micro-sized copper flakes in suspension
Density (lb/gal):	7.35
Flash Point	-4°F (-20°C)
Typical Coverage:	2,400 sq. in. / 12 oz. can 43,500 sq. in. per 1 gal-bulk
Pencil Hardness:	
1 to 24 hr. ambient	= 4B minimum
3 weeks @ ambient	= 2B minimum
1 hr. @ 200°F (93°C)	= 3B minimum
24 hr. @ 200°F (93°C)	= 1H minimum

**\*Warning: Flammable diluent solvents used.  
Do not apply near ignition sources.**

### PACKAGING

Code No.	Container Size	Container
61741	12 oz. See Aerosol Bulletin/MSDS	Aerosol
61716	5 gal.	Pail
61729	50 gal.	Drum

### 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

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# JET-LUBE, INC.

## MATERIAL SAFETY DATA SHEET

**Product Name:** C-PLATE™  
**Chemical Family:** Paints & Coatings  
**Use:** Protective copper anti-gall coating.

**Manufacturer/Supplier:** JET-LUBE, INC.  
**Address:** 4849 Homestead Rd., Ste. #200  
 Houston, TX, 77028 USA **Phone:** 713-674-7617  
**Emergency Phone:** 713-674-7617 **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
Ketones	67641/78933	40-60	>200	>200	STEL: >885 mg/M <sup>3</sup>
Aromatic Solvents	1330207/108883	10-20	>100	>100	STEL: 665 mg/M <sup>3</sup>
Copper Powder	7440508	10-20	N/A	1mg/M <sup>3</sup>	STEL: 2mg/M <sup>3</sup>

### Main Hazards—Health Effects

**Eyes:** Causes irritation and pain if splashed into eye. **Inhalation:** May cause dizziness, irritation of nasal passages and eyes in high vapor concentrations. **Ingestion:** May cause diarrhea. **Skin:** 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. Do not puncture or burn containers.  
**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:** Protect from sources of ignition, direct sunlight and temperatures exceeding 122°F (50°C). Do not puncture or burn, even after use. Keep away from children.

**Respiratory Protection:** None needed in well ventilated area. **Hand Protection:** Protective gloves for hypersensitive persons.

**Eye Protection:** Glasses, if applied to parts in motion. **Body Protection:** Chemical resistant apron.

**Physical State:** Metallic containing fluid **Color:** Copper **Odor:** Ketone type **pH:** Neutral **Boiling Range/Point °F (°C):** >300 (149)

**Melting Point °F (°C):** N/A **Flash Point (TCC) °F (°C):** -4 (-20) **Vapor Density:** >2.93

**Autoignition Temperature °F (°C):** >500 (260) **Explosive Properties:** LEL: 2.6% UEL: 12.8% **Density (g/cm<sup>3</sup>):** 1.19

**Evaporation Rate (Butyl Acetate):** >4.6 **Partition Coefficient (Log Pow):** N/A **Vapor Pressure (kPa):** 420 **OAR Value:** 3  
**% Volatiles:** 75% **Flammability:** Not flammable at ambient temp. **Oxidizing Properties:** None **Water Solubility:** Solvent 75% soluble

**Stability:** Chemically stable under normal conditions. No photoreactive agents. **Conditions to Avoid:** Powerful sources of ignition and extreme temperatures. **Materials to Avoid:** Strong inorganic & organic acids, oxidizing agents. **Hazardous Decomposition Products:** Burning generates smoke, airborne soot, hydrocarbons and oxides of carbon. Residue mainly comprised of soot & metal 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 **LC-50:** UN **LD-50:** Not applicable **Allergens:** None known.

**Possible Effects:** Solubility of solvent fraction in water could act as a marine pollutant.

**Behavior:** UN **Mobility:** UN **KOC:** UN

**Environmental Fate:** Highly unlikely to cause contamination or concern beyond flammability.

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

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

**D.O.T.:** Petroleum Distillates NOS **UN No.:** 1268

**Air Transport (ICAO & IATA):** UN1268 **Sea Transport (IMO & IMDG):** UN1268

**Road & Rail Transport (ADR/RID):** UN1268


**Labeling Information:** Petroleum Distillates NOS **EC Annex 1 Classification:** N/A **R Phrases:** R22, harmful if swallowed.  
 R12, extremely flammable. **S Phrases:** S3, keep cool. S16, keep away from ignition sources. **Ozone Depleting Chemicals:** N/A

**SARA 311/312:** Reported above **TSCA:** All components are listed. **WHMIS (Canada):** Class B, Div. 2

**Canadian DSL:** All components listed. **40 CFR Part 372 (SARA Section 313):** This product contains copper, ketones & xylene.

**CERCLA:** RQ >5000 **RCRA Hazard Class:** Mix of U159, U002, U239, flammable **TSCA 12B Components:** Acetone

**New Jersey Right To Know:** See Section II

**Signature:**   
**Prepared by:** Donald A. Oldiges  
**Date Issued:** May 12, 2009

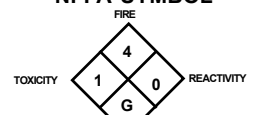
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LEGEND	
I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	IX. PHYSICAL AND CHEMICAL PROPERTIES
II. COMPOSITION INFORMATION ON INGREDIENTS	X. STABILITY AND REACTIVITY
III. HAZARDS IDENTIFICATION	XI. TOXICOLOGICAL INFORMATION
IV. FIRST AID MEASURES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

### HMIS SYMBOL

HEALTH	1
FLAMMABILITY	4
REACTIVITY	0
PPI	G

### NFPA SYMBOL



PERSONAL PROTECTION INDEX