

# MATERIAL SAFETY DATA SHEET

**Product Trade Name:** JRC-55

**Revision Date:** 03-Jan-2013

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name:** JRC-55  
**Synonyms:** None  
**Chemical Family:** Heavy metal  
**Application:** Raw Material

**Manufacturer/Supplier** Halliburton Energy Services  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Emergency Telephone: (281) 575-5000

**Prepared By** Chemical Compliance  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Tungsten	7440-33-7	30 - 60%	5 mg/m <sup>3</sup>	Not applicable
Carbon	7440-44-0	0 - 1%	10 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>
Copper	7440-50-8	30 - 60%	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Lead	7439-92-1	5 - 10%	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>

## 3. HAZARDS IDENTIFICATION

**Hazard Overview** May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed. Potential carcinogen.

## 4. FIRST AID MEASURES

**Inhalation** If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

**Skin** Wash with soap and water. Get medical attention if irritation persists.

**Eyes** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

**Ingestion** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

**Notes to Physician** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	Not Determined
Flash Point/Range (C):	Not Determined
Flash Point Method:	Not Determined
Autoignition Temperature (F):	Not Determined
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined

**Fire Extinguishing Media** All standard firefighting media.

**Special Exposure Hazards** Not applicable.

**Special Protective Equipment for Fire-Fighters** Not applicable.

**NFPA Ratings:** Health 3, Flammability 0, Reactivity 0  
**HMIS Ratings:** Health 3, Flammability 0, Reactivity 0

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures** Use appropriate protective equipment. Use only competent persons for cleanup.

**Environmental Precautionary Measures** Prevent from entering sewers, waterways, or low areas.

**Procedure for Cleaning / Absorption** Scoop up and remove.

## 7. HANDLING AND STORAGE

**Handling Precautions** Do NOT consume food, drink, or tobacco in contaminated areas. Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse.

**Storage Information** Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls** Use in a well ventilated area.

**Respiratory Protection** Dust/mist respirator. (N95, P2/P3)

**Hand Protection** Cloth gloves.

**Skin Protection** Normal work coveralls.

**Eye Protection** Wear safety glasses or goggles to protect against exposure.

**Other Precautions** None known.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Powder

**Color:** Copper  
**Odor:** Odorless

## 9. PHYSICAL AND CHEMICAL PROPERTIES

pH:	Not Determined
Specific Gravity @ 20 C (Water=1):	Not Determined
Density @ 20 C (lbs./gallon):	Not Determined
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (F):	Not Determined
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Insoluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined

## 10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	None known.
Incompatibility (Materials to Avoid)	Sodium acetylide Oxidants Ammonium compounds. Chlorine trifluoride. Peroxides. Sodium azide zirconium
Hazardous Decomposition Products	Metal oxides.
Additional Guidelines	Not Applicable

## 11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure	Eye or skin contact, inhalation. Product does not present exposures health hazards during normal handling and use. However, this product is an explosive material and uncontrolled detonation may cause severe physical injury including death. All explosives are dangerous and must be handles carefully and used following approved safety procedures under the direction of competent, experience persons in accordance with all applicable regulations and ordinances.
Inhalation	May cause mild respiratory irritation. Excessive inhalation may produce symptoms similar to ingestion.
Skin Contact	Prolonged or repeated contact may cause slight skin irritation. May be absorbed through the skin and contribute to the symptoms listed under ingestion.
Eye Contact	May cause mild eye irritation.
Ingestion	May cause abdominal pain, vomiting, nausea, and diarrhea. May produce nervous system effects such as feeling of weakness, unsteady walk, and dilation of blood vessels. May cause kidney damage.
Aggravated Medical Conditions	None known.

<b>Chronic Effects/Carcinogenicity</b>	Prolonged or repeated exposure may cause blood forming system, nervous, urinary tract and reproductive system damage. Prolonged or repeated exposure may cause kidney damage. Prolonged or repeated exposure may cause embryo and fetus toxicity. This product contains a suspected carcinogen.
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<b>Other Information</b>	None known.
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#### **Toxicity Tests**

<b>Oral Toxicity:</b>	Not determined
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<b>Dermal Toxicity:</b>	Not determined
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<b>Inhalation Toxicity:</b>	Not determined
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<b>Primary Irritation Effect:</b>	Not determined
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<b>Carcinogenicity</b>	Not determined
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<b>Genotoxicity:</b>	Not determined
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<b>Reproductive / Developmental Toxicity:</b>	Not determined
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### **12. ECOLOGICAL INFORMATION**

<b>Mobility (Water/Soil/Air)</b>	Not determined
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<b>Persistence/Degradability</b>	Not determined
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<b>Bio-accumulation</b>	Not determined
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#### **Ecotoxicological Information**

<b>Acute Fish Toxicity:</b>	Not determined
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<b>Acute Crustaceans Toxicity:</b>	Not determined
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<b>Acute Algae Toxicity:</b>	Not determined
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<b>Chemical Fate Information</b>	Not determined
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<b>Other Information</b>	Not applicable
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### **13. DISPOSAL CONSIDERATIONS**

<b>Disposal Method</b>	Disposal should be made in accordance with federal, state, and local regulations.
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<b>Contaminated Packaging</b>	Do NOT reuse container. Follow all applicable national or local regulations.
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### **14. TRANSPORT INFORMATION**

#### **Land Transportation**

##### **DOT**

Not restricted

##### **Canadian TDG**

Not restricted

**ADR**

Not restricted

**Air Transportation****ICAO/IATA**

Not restricted

**Sea Transportation****IMDG**

Not restricted

EmS F-B, S-X

**Other Transportation Information**

Labels: None

**15. REGULATORY INFORMATION****US Regulations****US TSCA Inventory** All components listed on inventory or are exempt.**EPA SARA Title III Extremely Hazardous Substances** Not applicable**EPA SARA (311,312) Hazard Class** Acute Health Hazard  
Chronic Health Hazard**EPA SARA (313) Chemicals** This product contains toxic chemical(s) listed below which is(are) subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR Part 372:  
Lead//7439-92-1  
Copper//7440-50-8**EPA CERCLA/Superfund Reportable Spill Quantity** EPA Reportable Spill Quantity is 400 Pounds based on Lead (CAS: 7439-92-1).**EPA RCRA Hazardous Waste Classification** If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of:

Toxicity D007

**California Proposition 65** The California Proposition 65 regulations apply to this product.**MA Right-to-Know Law** One or more components listed.**NJ Right-to-Know Law** One or more components listed.**PA Right-to-Know Law** One or more components listed.**Canadian Regulations****Canadian DSL Inventory** All components listed on inventory or are exempt.**WHMIS Hazard Class** D1A Very Toxic Materials

## 16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS

Not applicable

### Additional Information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Material Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

### Disclaimer Statement

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**\*\*\*END OF MSDS\*\*\***