

## MATERIAL SAFETY DATA SHEET

**Product Trade Name:** CORD-DETONATING, KEVLOR 80GR/FT PYX, A.F.

**Revision Date:** 03-Jan-2012

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name:** CORD-DETONATING, KEVLOR 80GR/FT PYX, A.F.  
**Synonyms:** None  
**Chemical Family:** Explosive  
**Application:** Explosive Charge

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

**Prepared By:** Chemical Stewardship  
Telephone: 1-580-251-4335  
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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
2,6-Bis(picrylamino)-3,5-dinitro-pyridine (PYX)	38082-89-2	5 - 10%	Not applicable	Not applicable

### 3. HAZARDS IDENTIFICATION

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

### 4. FIRST AID MEASURES

**Inhalation:** If inhaled, move victim to fresh air and seek 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. Give nothing by mouth. Obtain immediate medical attention.

**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** None. Do NOT fight fire. Isolate area and evacuate personnel to a safe area. Guard against intruders. Allow fire to burn itself out.

**Special Exposure Hazards** May detonate with impact or on heating. May explode and throw fragments 1 mile or more in fire. Evacuate all persons, including emergency responders.

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

**NFPA Ratings:** Health 1, Flammability 3, Reactivity 4  
**HMIS Ratings:** Health 1, Flammability 3, Reactivity 4

## 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** Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Remove ignition sources and work with non-sparking tools.

## 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** Store only in ATF approved magazines. Keep away from friction, impact, and heat.

## 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** Cotton coveralls, undergarments, and socks. Conductive soled shoes.

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

**Other Precautions** None known.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

## 10. STABILITY AND REACTIVITY

<b>Stability Data:</b>	Stable
<b>Hazardous Polymerization:</b>	Will Not Occur
<b>Conditions to Avoid</b>	May detonate with friction, impact, heat, and low level electrical current.
<b>Incompatibility (Materials to Avoid)</b>	Strong acids. Strong alkalis.
<b>Hazardous Decomposition Products</b>	Shrapnel. Oxides of nitrogen. Metal oxides. Carbon monoxide and carbon dioxide.
<b>Additional Guidelines</b>	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.

### Symptomts related to exposure

#### **Acute Toxicity**

##### **Inhalation**

May cause effects to the blood and blood system. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

May cause damage to the nervous, urinary, and reproductive systems. Nitrogen oxides generated during use are irritating to the respiratory system.

##### **Eye Contact**

May cause eye irritation.

##### **Skin Contact**

May be absorbed through the skin and contribute to the symptoms listed under ingestion. Nitrogen oxides generated during use are skin irritants.

**Ingestion**

May cause abdominal pain, vomiting, nausea, and diarrhea.

**Chronic Effects/Carcinogenicity**

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,6-Bis(picrylamino)-3,5-dinitro-pyridine (PYX)	38082-89-2	5 g/kg ( Rat )	No data available	No data available

**12. ECOLOGICAL INFORMATION****Ecotoxicological Information****Ecotoxicity Product****Acute Fish Toxicity:** Not determined**Acute Crustaceans Toxicity:** Not determined**Acute Algae Toxicity:** Not determined**Ecotoxicity Substance**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
2,6-Bis(picrylamino)-3,5-dinitro-pyridine (PYX)	38082-89-2	No information available	No information available	No information available	No information available

**12.2. Persistence and degradability**

Substances	CAS Number	Persistence and Degradability
2,6-Bis(picrylamino)-3,5-dinitro-pyridine (PYX)	38082-89-2	No information available

**12.3. Bioaccumulative potential**

Substances	CAS Number	Log Pow
2,6-Bis(picrylamino)-3,5-dinitro-pyridine (PYX)	38082-89-2	No information available

**12.4. Mobility in soil**

No information available

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Disposal Method**

Disposal should be made in accordance with federal, state, and local regulations.

**Contaminated Packaging**

Do NOT reuse container. Store only in ATF approved magazines.

**14. TRANSPORT INFORMATION****US DOT****UN Number:** UN0289**UN Proper Shipping Name:** Cord, Detonating**Transport Hazard Class(es):** 1.4D

CORD-DETONATING, KEVLOR 80GR/FT PYX, A.F.

**Packing Group:** II  
**EX Number:** EX-9505048  
**NAERG:** NAERG 114

**US DOT Bulk**  
**DOT (Bulk)** Not applicable

**Canadian TDG**  
**UN Number:** UN0289  
**UN Proper Shipping Name:** Cord, Detonating  
**Transport Hazard Class(es):** 1.4D  
**Packing Group:** II  
**EX Number:** EX-9505048

**IMDG/IMO**  
**UN Number:** UN0289  
**UN Proper Shipping Name:** Cord, Detonating  
**Transport Hazard Class(es):** 1.4D  
**Packing Group:** II  
**EX Number:** EX-9505048  
**EMS:** EmS F-B, S-X

**IATA/ICAO**  
**UN Number:** UN0289  
**UN Proper Shipping Name:** Cord, Detonating  
**Transport Hazard Class(es):** 1.4D  
**Packing Group:** II  
**EX Number:** EX-9505048

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable  
**Special Precautions for User:** None

**Labels:** Explosive 1.4D

## 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  
Fire Hazard  
Sudden Release of Pressure 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:  
Reactivity D003

**California Proposition 65** All components listed do not apply to the California Proposition 65 Regulation.

**MA Right-to-Know Law** Does not apply.

**NJ Right-to-Know Law** Does not apply.

**PA Right-to-Know Law** Does not apply.

### **Canadian Regulations**

**Canadian DSL Inventory** All components listed on inventory or are exempt.

**WHMIS Hazard Class** F Dangerously Reactive Material

## **16. OTHER INFORMATION**

### **The following sections have been revised since the last issue of this SDS**

Not applicable

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

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

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