HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: IGNITER PIPE RECOVERY

Revision Date: 04-Jan-2011

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Statement of Hazardous Nature Hazardous according to the criteria of NOHSC, Dangerous Goods according to the

criteria of ADG.

Manufacturer/Supplier Halliburton Australia Pty. Ltd.

15 Marriott Road

Jandakot WA 6164 Australia

ACN Number: 009 000 775

Telephone Number: 61 (08) 9455 8300 Fax Number: 61 (08) 9455 5300

Product Emergency Telephone

Australia: 08-64244950

Papua New Guinea: 05 1 281 575 5000

NewZealand: 06-7559274

Fire, Police & Ambulance - Emergency Telephone

Australia: 000

Papua New Guinea: 000 New Zealand: 111

Identification of Substances or Preparation

Product Trade Name: IGNITER PIPE RECOVERY

Synonyms: IGNITER ASSEMBLY, CORE GUN IGNITERS, 50 OHM - 197406

Chemical Family: Explosive
UN Number: , UN0352
Dangerous Goods Class: 1.4G
Subsidiary Risk: None
Hazchem Code: 2[Y]E

Poisons Schedule: None Allocated

Application: Igniter

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances CAS Number PERCENT Australia New Zealand ACGIH TLV-TWA

NOHSC WES

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2. COMPOSITION/INFORMATION ON INGREDIENTS Black powder (consisting of 70-76% Potassium nitrate (7757-79-1); 8-18% Charcoal; 9-20% Sulfur (7704-34-9); and trace amounts of Graphite (7782-42-5) Mixture 100% Not applicable Not applicable Not applicable

Non-Hazardous Substance to Total of 100%

3. HAZARDS IDENTIFICATION

Hazard Overview Explosive. May cause eye, skin, and respiratory irritation.

Risk Phrases R2 Risk of explosion by shock, fire, friction, or other sources of ignition.

HSNO Classification Not Determined

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

Suitable Extinguishing Media Do NOT fight fire. Isolate area and evacuate personnel to a safe area. Guard

against intruders. Allow fire to burn itself out.

Extinguishing media which must None known.

not be used for safety reasons

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 Not applicable.

Fire-Fighters

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 Avoid contact with eyes, skin, or clothing. Do NOT consume food, drink, or tobacco

in contaminated areas. 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

Physical State: Solid Color: Metallic Odor: Odorless :Ha Not Determined Not Determined Specific Gravity @ 20 C (Water=1): Density @ 20 C (kg/l): Not Determined Bulk Density @ 20 C (kg/m³): Not Determined Not Determined **Boiling Point/Range (C):** Freezing Point/Range (C): Not Determined Pour Point/Range (C): Not Determined Flash Point/Range (C): Not Determined Flash Point Method: Not Determined **Autoignition Temperature (C):** Not Determined Flammability Limits in Air - Lower (g/m³): Not Determined Not Determined Flammability Limits in Air - Lower (%): Flammability Limits in Air - Upper (g/m³): Not Determined Flammability Limits in Air - Upper (%): 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 Not Determined VOCs (g/l): Viscosity, Dynamic @ 20 C (centipoise): Not Determined Viscosity, Kinematic @ 20 C (centistokes): Not Determined Not Determined Partition Coefficient/n-Octanol/Water: Molecular Weight (g/mole): Not Determined **Decomposition Temperature (C):** Not Determined

10. STABILITY AND REACTIVITY

Stability Data: Stable

Hazardous Polymerization: Will Not Occur

IGNITER PIPE RECOVERY Page 3 of 6 **Conditions to Avoid** May detonate with friction, impact, heat, and low level electrical current.

Incompatibility (Materials to

Avoid)

Strong alkalis. Strong acids.

Hazardous Decomposition

Products

Shrapnel. Oxides of nitrogen. Oxides of sulfur. Metal oxides. Carbon monoxide and

carbon dioxide.

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.

Sympotoms related to exposure

Inhalation

May cause respiratory irritation.

Skin Contact May cause skin irritation.

Eye Contact May cause eye irritation.

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

Aggravated Medical Conditions None known.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are

chronic health hazards.

Other Information None known.

Toxicity Tests

Oral Toxicity: Not determined

Dermal Toxicity: Not determined

Inhalation Toxicity: Not determined

Primary Irritation Effect: Not determined

Carcinogenicity Not determined

Genotoxicity: Not determined

Reproductive /

Not determined

Developmental Toxicity:

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air) Not determined

Persistence/Degradability Not applicable

Bio-accumulation Not determined

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Ecotoxicological Information

Acute Fish Toxicity: Not determined Acute Crustaceans Toxicity: Not determined **Acute Algae Toxicity:** Not determined

Chemical Fate Information Not determined Other Information Not applicable

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.

TRANSPORT INFORMATION

Land Transportation

ADR

UN0325, Igniters, 1.4G, II EX-1985060046 EX-8509015

Air Transportation

ICAO/IATA

UN0325, Igniters, 1.4G, II EX-1985060046 EX-8509015

Sea Transportation

IMDG

UN0325, Igniters, 1.4G, II EX-1985060046 EX-8509015 EmS F-B, S-X

Other Transportation Information

Labels: Explosive 1.4G

REGULATORY INFORMATION

Chemical Inventories

Australian AICS Inventory New Zealand Inventory of

All components listed on inventory or are exempt. All components listed on inventory or are exempt.

Chemicals All components listed on inventory or are exempt. **US TSCA Inventory**

EINECS Inventory This product, and all its components, complies with EINECS **Classification** E - Explosive.

Risk Phrases R2 Risk of explosion by shock, fire, friction, or other sources of ignition.

Safety Phrases S2 Keep out of reach of children.

S16 Keep away from sources of ignition - No Smoking.
S33 Take precautionary measures against static discharges.

S34 Avoid shock and friction.

16. OTHER INFORMATION

The following sections have been revised since the last issue of this SDS Not applicable

Contact

Australian Poisons Information Centre

24 Hour Service: - 13 11 26

Police or Fire Brigade: - 000 (exchange): - 1100

New Zealand National Poisons Centre

0800 764 766

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 Compliance at 1-580-251-4335.

Disclaimer Statement This information is furnished without warranty, expressed or implied, as to accuracy

or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of

the user.

END OF MSDS