

MATERIAL SAFETY DATA SHEET

Product Trade Name: IGNITER, THERMAL IGNITER, RED®, GO STYLE

Revision Date: 20-Mar-2014

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, THERMAL IGNITER, RED®, GO STYLE
Synonyms: IGNITER, THERMAL IGNITER, RED®, GO STYLE - 101320910

Chemical Family: Explosive
UN Number: , UN0255
Dangerous Goods Class: 1.4B
Subsidiary Risk: None
Hazchem Code: 1[Y]E
Poisons Schedule: None Allocated
Application: Igniter

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

2. HAZARDS IDENTIFICATION

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

Hazard Overview explosive May cause eye, skin, and respiratory irritation. May be harmful if swallowed. Oxidizer.

Classification E - Explosive.
Xn - Harmful.

Risk Phrases R2 Risk of explosion by shock, fire, friction, or other sources of ignition.
R9 Explosive when mixed with combustible material.
R22 Harmful if swallowed.

Safety Phrases S53 Avoid exposure - obtain special instructions before use.
S2 Keep out of reach of children.
S16 Keep away from sources of ignition - No Smoking.
S22 Do not breathe dust.
S27 Immediately take off all contaminated clothing.
S33 Take precautionary measures against static discharges.
S34 Avoid shock and friction.
S45 In case of accident or if you feel unwell, seek medical advice immediately.

HSNO Classification 1.1 Explosive Substances - Substances and articles that have a mass explosion hazard
6.1D Acutely Toxic Substances
6.3B Mildly irritating to the skin
6.4A Irritating to the eye
6.8C Produce toxic human reproductive or developmental effects on or via lactation
6.9A Toxic to human target organs or systems
9.1B Ecotoxic in the aquatic environment
9.2B Ecotoxic in the soil environment
9.3C Harmful to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	Australia	NOHSC	New Zealand	ACGIH TLV-TWA
			WES			
THKP (Titanium Subhydride, Potassium Perchlorate)	Mixture	60 - 100%	Not applicable	Not applicable	Not applicable	Not applicable
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	10 - 30%	Not applicable	Not applicable	Not applicable	Not applicable

Non-Hazardous Substance to Total of 100%

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 not be used for safety reasons

None known.

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.

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.

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.

Symptoms related to exposure**Acute Toxicity****Inhalation**

May cause respiratory irritation.

Eye Contact

May cause eye irritation

Skin Contact

May cause skin irritation.

Ingestion

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

Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
THKP (Titanium Subhydride, Potassium Perchlorate)	Mixture	No data available	No data available	No data available
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	No data available	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
THKP (Titanium Subhydride, Potassium Perchlorate)	Mixture	No information available	No information available	No information available	No information available
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	No information available	No information available	No information available	No information available

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

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

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

Land Transportation

ADR

UN0255, Detonators, Electric , 1.4B , II EX1995010044

Air Transportation

ICAO/IATA

UN0255, Detonators, Electric , 1.4B , II EX1995010044

Sea Transportation

IMDG

UN0255, Detonators, Electric , 1.4B , II EX1995010044
EmS F-B, S-X

Other Transportation Information

Labels: Explosive 1.4B

15. REGULATORY INFORMATION

Chemical Inventories

Australian AICS Inventory New Zealand Inventory of Chemicals

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

US TSCA Inventory EINECS Inventory

All components listed on inventory or are exempt.
This product, and all its components, complies with EINECS

Classification

E - Explosive.
Xn - Harmful.

Risk Phrases

R2 Risk of explosion by shock, fire, friction, or other sources of ignition.
R9 Explosive when mixed with combustible material.
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Safety Phrases

S53 Avoid exposure - obtain special instructions before use.
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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