

# SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

## CARTRIDGE, 2 1/2 SHORTY - PC25082023

Revision Date: 03-Jan-2012

Revision Number: 7

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Name** CARTRIDGE, 2 1/2 SHORTY - PC25082023

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Explosive Charge  
**Uses Advised Against** No information available

**Details of the supplier of the safety data sheet**

Halliburton Energy Services  
Halliburton House, Howemoss Place  
Kirkhill Industrial Estate  
Dyce  
Aberdeen, AB21 0GN  
United Kingdom

Emergency Phone Number: +44 1224 795277 or +1 281 575 5000

[www.halliburton.com](http://www.halliburton.com)

For further information, please contact

**E-Mail address:** fdunexchem@halliburton.com

**Emergency telephone number**

+44 1224 795277 or +1 281 575 5000

**Emergency telephone §45 - (EC)1272/2008**

Europe	<b>112</b>
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Toxinfo (NO): +47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Acute Oral Toxicity	Category 4 - (H302)
Explosives.	Division 1.4 - (H204)
Oxidizing solids	Category 1 - (H271)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

## 2. HAZARDS IDENTIFICATION

For the full text of the R-phrases mentioned in this Section, see Section 16

### Classification

O - Oxidizing.  
Xn - Harmful.

### Risk Phrases

R8 Contact with combustible material may cause fire.  
R22 Harmful if swallowed.

### Label Elements

#### Hazard Pictograms



#### Signal Word

Danger

#### Hazard Statements

H302 - Harmful if swallowed  
H204 - Fire or projection hazard  
H271 - May cause fire or explosion; strong oxidizer

#### Contains

#### Substances

Titanium potassium perchlorate

#### CAS Number

Mixture

#### Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P220 - Keep/Store away from clothing/ combustible materials  
P221 - Take any precaution to avoid mixing with combustibles  
P240 - Ground/Bond container and receiving equipment  
P250 - Do not subject to grinding/shock/friction  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P283 - Wear fire/flame resistant/retardant clothing  
P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P306 + P360 - IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes  
P371 + P380 + P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion  
P372 - Explosion risk in case of fire  
P373 - DO NOT fight fire when fire reaches explosives

**Other Hazards**

None known

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Titanium potassium perchlorate	Not applicable	Mixture	Unknown	O;R9 Xn;R22	Acute Tox. 4 (H302) Ox. Sol. 1 (H271) Expl. 1.4 (H204)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16**4. FIRST AID MEASURES****Description of 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.

**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.

**Skin**

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse. Destroy or properly dispose of contaminated shoes.

**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.

**Most Important symptoms and effects, both acute and delayed**

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May effect the blood's ability to carry oxygen.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically

**5. FIREFIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**

None known.

**Special hazards arising from the substance or mixture****Special Exposure Hazards**

Flammable solid, may detonate under adverse conditions. Oxidizer. May ignite combustibles. Sprinkler and/or deluge systems recommended for bulk storage areas.

**Advice for firefighters****Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Use only competent persons for cleanup.

See Section 12 for additional information

**Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**Methods and material for containment and cleaning up**

Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Scoop up and remove.

**Reference to other sections**

See Section 12 for additional information.

**7. HANDLING AND STORAGE****Precautions for Safe Handling**

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

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Conditions for safe storage, including any incompatibilities**

Keep away from friction, impact, and heat. Store away from combustibles.

**Specific End Use(s)**

Exposure Scenario No information available

Other Guidelines No information available

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

Substances	EU	UK OEL	Netherlands	France OEL	Germany MAK/TRK
Titanium potassium perchlorate	Not applicable				

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Titanium potassium perchlorate	Not applicable				

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**Exposure controls**

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

**Personal protective equipment**

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

**Hand Protection** Cloth gloves.

**Skin Protection** Cotton coveralls, undergarments, and socks. Conductive soled shoes. Anti-static clothing.

**Eye Protection** Chemical goggles; also wear a face shield if splashing hazard exists.

**Other Precautions** Eyewash fountains and safety showers must be easily accessible.

**Environmental Exposure Controls** No information available

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

**Physical State:** Solid  
**Odor:** Odorless

**Color:** Gray to black  
**Odor Threshold:** No information available

**Property****Remarks/ Method**

**pH:**

**Melting Point/Range**

**Freezing Point/Range (C):**

**Boiling Point/Range**

**Flash Point**

**Evaporation rate**

**Vapor Pressure**

**Vapor Density**

**Specific Gravity**

**Water Solubility**

**Solubility in other solvents**

**Values**

No data available

1.04

Insoluble in water

No data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

### Other information

VOC Content (%)	No data available
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## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable

### Chemical Stability

Stable

### Possibility of Hazardous Reactions

Will Not Occur

### Conditions to Avoid

May detonate with friction, impact, heat, and low level electrical current.

### Incompatible Materials

Strong alkalis. Strong acids. Combustible materials. Organic matter. Reducing agents.

### Hazardous Decomposition Products

Oxides of nitrogen. Chlorine. Carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

Inhalation	May cause respiratory irritation. May cause blood disorders including prolonged weakness and fatigue.
Eye Contact	May cause eye irritation.
Skin Contact	May cause skin irritation.
Ingestion	May reduce the blood's ability to transport oxygen (methemalobinemia).

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 1% are chronic health hazards.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Titanium potassium perchlorate	No data available	No data available	No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity

#### Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Titanium potassium perchlorate	No information available	No information available	No information available	No information available

### Persistence and degradability

No information available

### Bioaccumulative potential

No information available

**Mobility in soil**

No information available

**Results of PBT and vPvB assessment**

No information available.

**Other adverse effects****Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal Method****Contaminated Packaging**

Disposal should be made in accordance with federal, state, and local regulations. Follow all applicable national or local regulations.

**14. TRANSPORT INFORMATION****IMDG/IMO**

**UN Number:** UN0323,  
**UN Proper Shipping Name:** Cartridges, Power Device  
**Transport Hazard Class(es):** , 1.4S  
**Packing Group:** , II  
**EMS:** EmS F-B, S-X

**RID**

**UN Number:** UN0323,  
**UN Proper Shipping Name:** Cartridges, Power Device  
**Transport Hazard Class(es):** , 1.4S  
**Packing Group:** , II

**ADR**

**UN Number:** UN0323,  
**UN Proper Shipping Name:** Cartridges, Power Device  
**Transport Hazard Class(es):** , 1.4S  
**Packing Group:** , II

**IATA/ICAO**

**UN Number:** UN0323,  
**UN Proper Shipping Name:** Cartridges, Power Device  
**Transport Hazard Class(es):** , 1.4S  
**Packing Group:** , II

**Special Precautions for User**

None

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****EINECS Inventory****US TSCA Inventory****Canadian DSL Inventory**

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

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**Germany, Water Endangering Classes (WGK)**      WGK 2: Hazard to waters.

**Chemical Safety Assessment**  
No information available

## 16. OTHER INFORMATION

### Full text of R-phrases referred to under Sections 2 and 3

R8 Contact with combustible material may cause fire.  
R22 Harmful if swallowed.

### Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed  
H271 - May cause fire or explosion; strong oxidizer

**Key literature references and sources for data**  
www.ChemADVISOR.com/

**Revision Date:** 03-Jan-2012  
**Revision Note:** Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### Disclaimer Statement

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**End of Safety Data Sheet**