

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

PELLET/CART KIT, HMX, 2.625 DCST

Revision Date: 11-Jan-2012

Revision Number: 3

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

Product Identifier

Product Name PELLET/CART KIT, HMX, 2.625 DCST

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

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	112
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	Poisons Information (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

Explosives.

Division 1.4- H204

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

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

2. HAZARDS IDENTIFICATION

Classification E - Explosive.
Risk Phrases R2 Risk of explosion by shock, fire, friction, or other sources of ignition.

Label Elements

Hazard Pictograms



Signal Word Warning

Hazard Statements
 H204 - Fire or projection hazard

Contains

Substances Cyclotetramethylenetetranitramine (HMX) **CAS Number** 2691-41-0

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

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P240 - Ground/Bond container and receiving equipment
- P250 - Do not subject to grinding/shock/friction
- P370 + P380 - In case of fire: Evacuate area
- 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.
Cyclotetramethylenetetranitramine (HMX)	220-260-0	2691-41-0	Unknown	E; R2	Expl. 1.4 (H204) Acute Tox. 3 (H311) STOT SE 1 (H370) STOT RE 2 (H373)	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 Wash with soap and water. Get medical attention if irritation persists.

4. FIRST AID MEASURES

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

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance of mixture

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.

Advice for firefighters

Special Protective Equipment for Fire-Fighters

Not applicable.

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. Remove ignition sources and work with non-sparking tools.

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. 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

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

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
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION					
Cyclotetramethylenetetra nitramine (HMX)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Cyclotetramethylenetetra nitramine (HMX)	Not applicable	Not applicable	Not applicable	Not applicable	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.
Eye Protection Wear safety glasses or goggles to protect against exposure.
Other Precautions None known.
Environmental Exposure Controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State: Solid **Color:** Metallic
Odor: Odorless **Odor Threshold:** No information available

<u>Property</u>	<u>Values</u>
Remarks/ Method	
pH:	No data available
Melting Point/Range	No data available
Freezing Point/Range (C):	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	No data available
Water Solubility	Insoluble in water
Solubility in other solvents	No data available
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

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

10. STABILITY AND REACTIVITY

Strong acids. Strong alkalis.

Hazardous Decomposition Products

Shrapnel. Oxides of nitrogen. Metal oxides. Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

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 Prolonged or repeated exposure may cause blood forming system, nervous, urinary tract and reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity. Prolonged or repeated exposure may cause liver damage.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cyclotetramethylenetetranitramine (HMX)	LD50: 6490 mg/kg	LD50:630 mg/kg	No data available

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Cyclotetramethylenetetranitramine (HMX)	No information available	LC50: 8.8-26 mg/L (Pimephales promelas)	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 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

IMDG/IMO

UN Number: UN0349,
UN Proper Shipping Name: Articles, Explosive, N.O.S., (Pressed Desensitized Pellets of HMX)
Transport Hazard Class(es): , 1.4S
Packing Group: , II
EMS: EmS F-B, S-X

RID

UN Number: UN0349,
UN Proper Shipping Name: Articles, Explosive, N.O.S., (Pressed Desensitized Pellets of HMX)
Transport Hazard Class(es): , 1.4S
Packing Group: , II

ADR

UN Number: UN0349,
UN Proper Shipping Name: Articles, Explosive, N.O.S., (Pressed Desensitized Pellets of HMX)
Transport Hazard Class(es): , 1.4S
Packing Group: , II

IATA/ICAO

UN Number: UN0349,
UN Proper Shipping Name: Articles, Explosive, N.O.S., (Pressed Desensitized Pellets of HMX)
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 This product, and all its components, complies with EINECS
US TSCA Inventory All components listed on inventory or are exempt.
Canadian DSL Inventory 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/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) Not determined.

Chemical Safety Assessment

No information available

16. OTHER INFORMATION

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

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

Key literature references and sources for data

www.ChemADVISOR.com/

Revision Date: 11-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