



U.S. Department
of Transportation

East Building, PHH - 32
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

**The US Department of Transportation
Competent Authority for the United States**

CLASSIFICATION OF EXPLOSIVES

Based upon a request by Spectronix Ltd., Industrial Area, PO Box 29, Sderot, 80150, Israel the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR). A copy of your application, all supporting documentation and a copy of this approval must be retained and made available to DOT upon request.

U.N. PROPER SHIPPING NAME AND NUMBER:

Igniters, UN0454

U.N. CLASSIFICATION CODE: 1.4S

REFERENCE NUMBER

EX2011040095

PRODUCT DESIGNATION/PART NUMBER

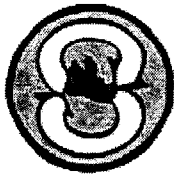
Drawing # 622314 (Activation Harness Assy)

NOTES: This classification is only valid when there are threaded steel protective caps over all the output end of the igniters and they are packaged as follows: Inner Packaging - Trays, fiberboard, each containing not more than ten (10) igniters uniformly separated apart and oriented alternately in opposite direction. Outer Packaging - UN 4G fiberboard box, each containing not more than four (4) inner packagings with fiberboard honeycomb padding between each layer.

DATED: 05/19/2011

Harpreet K Singh

For Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

**SPECTRONIX**

Commercial in Confidence

Spectronix Ltd.	SAFETY DATA SHEET	Ref.: TD100268 Date: 07/11/10
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1. PRODUCT / MANUFACTURER IDENTIFICATIONPRODUCT

IGNITERS UN-0454

1.4S, Pkg. Gr. II

IMI (Competent Authority) Certification 111-1932-09
(IMI Cat. No. 168149991, Spectronix Cat. No. TD100268,

IGNITER ASSEMBLY P/N 622314)

Net Explosive Weight 0.4 grams per unit.

COMPANY / MANUFACTURERRegistered OfficeSpectronix Ltd.
Industrial Area, P.O.B 29,
Sderot, 80150, IsraelManufacturer AddressSpectronix Ltd.
Industrial Area, P.O.B 29,
Sderot, 80150, Israel
Tel: 972-8-6875444; Fax: 972-8-6899178**2. COMPOSITION / INGREDIENT INFORMATION**

(Description/names/references of pyrotechnics components used in the product)

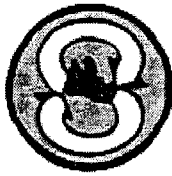
Fuse head – 0.01 gr

Propellant – 0.23 gr

Black powder – 0.12 gr

Total mass of energetic materials:

0.4 Gr. (max.)



SPECTRONIX

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3. HAZARD IDENTIFICATION

Risk classification

1.4 S

- Pyrotechnic:
Heat and naked flame may
cause the cartridge ignition.

In Packing:
- Detonation in lump: NON
- Toxic gas emission: NON

Out of Packing:
- Detonation in lump: Yes
- Toxic gas emission: NON

- Other:

4. FIRST AID MEASURES

Contact with substances and/or with the decomposition product:

Inhalation : N.A.

Eyes contact : N.A.

Ingestion : N.A.

Skin contact : N.A.

5. FIRE-FIGHTING MEASURES

In case of fire evacuate people from the area.

Secure vicinity, keep unauthorized persons away.

Remove scattered load.

Try to extinguish with plenty of water,

Fight adjacent fire with all available means: water, extinguishing powder, etc.

Prevent fire from reaching product.

Remove all flammable articles from the dangerous zone.

Drive vehicles away from fire zone.

6. ACCIDENTAL RELEASE MEASURES

Avoid shocks and everything that can produce fire.

Keep away from heat and flame.

In case of packing rupture transfer the products to similar packing only by authorized persons.



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7. HANDLING AND STORAGE

Handling: As any standard cartridge

Keep away from heat sources and naked flame.

All equipment must be connected to grounding system.

Storage: In dry place. According to national regulation.

Temperature: -50 - +72°C

Hygrometry: Outdoor

8. PERSONAL PROTECTION/EXPOSURE CONTROL

Fire, heat, electrostatic discharge may cause ignition.

The worker shall use cotton clothes, Anti-static shoes, safety goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Decomposition state: N.A

10. STABILITY AND REACTIVITY: Stable at -50 - 72°C. Ignite at > 200°C

Avoid contact with naked flame and temperature above.

Vibration sensitivity: N.A

Shock sensitivity: N.A.

Drop sensitivity: N.A.

Others: Not Applicable

11. TOXICOLOGICAL INFORMATION

According to theoretical chemical equation and our test knowledge there are no toxicological effects.

12. ECOLOGICAL INFORMATION:

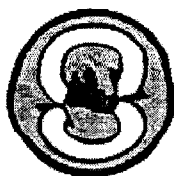
No effects.

13. DISPOSAL CONSIDERATION

According to guidelines for destruction of cartridge.

In specific proper use waster disposal is not required.

Dispose of in an approved disposal area.



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14. TRANSPORT

Official name for transport: IGNITER

UN identification Number: 0454

Packing method: 142 according IMDG code

15. REGULATORY INFORMATION

Subject to DOD 4145.26-M, dated July 1997.

Transport of Dangerous Goods, 12 Edition, UN
IMDG Code.

16. OTHER INFORMATION

Handling of pyrotechnic based products should only allowed to qualified, experienced personnel and in accordance with national regulations.

In case of appropriate handling no toxic or ecological risks are to be expected.

The user should pay attention that an abnormal use of a product with pyrotechnics based components may modify its initial properties.

The information contained herein based on the present state of our knowledge. It serves as a guideline on proper handling of the product.