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1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifier	SERIES 4000 ELECTRIC DETONATOR Daveydet MI (medium intensity), delay, short delay and instantaneous; Daveydet HI (High intensity) instantaneous; and Daveydet SR (seismic) detonators.
1.2 Use of the Product:	Explosive initiation - industrial use These detonators are not suitable for use in gassy mines. Daveydet P detonators should be used in those conditions
1.3 Details of the Supplier of the MSDS:	
Name	EPC-UK EXPLOSIVES
Address:	ROUGH CLOSE WORKS CARNFIELD HILL SOUTH NORMANTON ALFRETON DERBYSHIRE, DE55 2BE
Telephone Number:	01773 832253
Contact e-mail	info@epc-groupe.co.uk
1.4 Emergency Telephone Number:	01773 832253

2. HAZARD IDENTIFICATION

2.1 Classification of Mixture

Classification According to EC Regulation 1272/2008

Detonators are explosive articles.
without packaging electric detonators are classified H201 (explosive :
mass explosion hazard)

2.2 Label elements

According to EC Regulation 1272/2008

Hazard Pictogram



Signal word

Danger

Hazard Statement


H201 : explosive : mass explosion hazard

Precautionary statements

P210 : keep away from heat /sparks / open flames / hot surfaces - no



For further information contact the Technical Service Dept at
EPC-UK Explosives Venture Crescent Alferton Derbyshire DE55 7RA
Tel 01773 832253 Fax 01773 837683

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smoking

P250 : do not subject to grinding / shock / friction

P372 : explosion risk in case of fire

P401 : store at a temperature between -10 and 50°C

P501 : dispose of contents / container according to the rules relating to the explosives

2.3 Other Hazards

Not applicable: the explosive material is not accessible in normal use

3. COMPOSITION/INFORMATION ON THE INGREDIENTS

3.1 Substances

Metal casing enclosing:

- Primary explosive $\leq 0.2g$

- And/or Secondary explosive $\leq 0.8g$

- And/or Delay composition

- And a priming cap coated with a pyrotechnic paste

A plastic plug is crimped on to the open end of the casing used for passing the electrical wires through

Pyrotechnical substance TNT mass equivalent: 1 g equivalent TNT per detonator

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General

Protect yourself, notify emergency responders and take the victim to safety.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed


Not applicable

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

For injuries due to splinters, provide first aid then request medical advice if necessary.

For explosions nearby, check hearing.

Treat symptoms in all cases.

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5. FIRE FIGHTING MEASURES


- 5.1 Extinguishing Media:** None
- 5.2 Special Hazards Arising from Product:** Set up a safety perimeter.
Do not personally intervene to stop a pyrotechnics fire.
Whenever possible, measures should be taken to prevent the fire from spreading.
After the fire has been extinguished, the site where it took place may only be entered after ascertaining that the entire area has cooled completely.
- 5.3 Advice for Firefighters:** When intervening, wear special fire prevention equipment (respiratory device, helmet, etc.).

6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures:** Pyrotechnic materials spilled accidentally must be collected by authorised personnel, so that they can be disposed of and if necessary, destroyed (see waste handling, section 13). Avoid any impacts, friction, or anything that may lead to a spark or electrostatic discharge.
Keep away from incompatible chemicals.
If there is broken packaging around pyrotechnic items, transfer the items into a wood or cardboard container, taking care to avoid damaging them (impact, spark, heat, etc.).
- 6.2 Environmental Precautions:** Not applicable
- 6.3. Methods and material for containment and cleaning up** Not applicable
- 6.4. Reference to other sections** Not applicable

7. HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:** Handle with care, avoiding impacts, friction and exposure to heat, naked lights, electromagnetic radiation (including mobile phones), electrostatic charges, etc.
Any use not covered in the technical instructions or by untrained personnel is prohibited.
No smoking.
- 7.2 Conditions for safe storage , including any** Storage temperature: -10 °C to +50°C
Protect from humidity. Generally storage of detonators must be licenced

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incompatibilities: in accordance with the Explosives Regulations 2014
COMAH storage limits for Explosives depends on the classification:

	Class 1.1	Class 1.4
Lower Tier	10 tonnes;	50 tonnes
Upper Tier	50 tonnes;	200 tonnes

7.3 Specific end use(s) Not applicable

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control Parameter: Not affected

8.2 Exposure controls Respiratory protection: Do not inhale the smoke after a fire has started.
- Hand protection: wearing gloves recommended
- Eye protection: wearing goggles recommended
- Hearing protection: close to an explosion, wearing hearing protection appropriate for the distance recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic physical and chemical properties Not applicable - article
(s) Explosive properties

Maximum no fire current	
Medium intensity detonators	0.65 Amps
High intensity detonator	4.2 Amps

9.2 Other information Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity: Not applicable



10.2 Chemical Stability Stable within the storage temperatures recommended in section 7 and within the item's usage limitations (expiration date)

10.3 Possibility of Hazardous Reactions Not applicable

10.4 Conditions to avoid Avoid any exposure to high temperatures, impacts, friction, electrostatic discharges or stray currents

10.5 Incompatible materials Acids and alkalis

10.6 Hazardous Decomposition Products: Fumes contain lead.
Possible release of oxides of carbon and nitrogen.


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11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects** No hazards identified for the item
- (a) acute toxicity
 - (b) skin corrosion / irritation
 - (c) Serious eye damage / irritation
 - (d) Respiratory or skin sensitisation
 - (e) Germ Cell Mutagenicity
 - (f) carcinogenicity
 - (g) reproduction toxicity
 - (h) STOT – single exposure
 - (i) STOT –repeated exposure
 - (j) aspiration hazard

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity:** No hazards identified for the item
- 12.2 Persistence and Degradability:** No hazards identified for the item
- 12.3 Bioaccumulation potential;** No hazards identified for the item
- 12.4 Mobility in soil** No hazards identified for the item
- 12.5 Result of PBT and vPvB Assessment:** No hazards identified for the item
- 12.6 Other Adverse Effects** No hazards identified for the item

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Product disposal:	Do not place in waste bins, drains, or landfill. Processing and destruction require specific procedures and must be covered in a special study that takes into account the product's condition and treatment of the waste after destruction. This operation must be carried out by trained, authorised personnel in approved areas. All materials contaminated by pyrotechnic materials from the item should also be considered pyrotechnic waste. See the HSE/CBI-EIG Guidance
Container Disposal:	While packaging may often be destroyed by burning, great care must be taken to ensure there are no detonators remaining inside.


14. TRANSPORT INFORMATION

14.1 UN Number :	UN 0030	UN 0255	UN 0456
14.2 UN Proper Shipping Name :	Detonators, Electric, for Blasting	Detonators, Electric, for Blasting	Detonators, Electric, for Blasting
14.3 Transport Hazard Classes:	1.1B	1.4B	1.4S
14.4 Packing Group :	Not applicable	Not applicable	Not applicable
14.5 Environmental Hazards	Not applicable	Not applicable	Not applicable
14.6 Special Precautions for User			
ADR Specifics (road)	None	None	None
IATA specifics (Air)	Forbidden	Cargo aircraft only	None
IMDG specifics (sea)	None	None	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable	Not applicable	Not applicable

15. REGULATORY INFORMATION



For further information contact the Technical Service Dept at
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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK Legislation: Carriage of Dangerous Goods Regulations 2009, as amended – implementing ADR
Classification (Hazard Information and Packaging for Supply) Regs 2009, as amended.
Control of Substances Hazardous to Health regs 2002, as amended
The Explosives regulation 2014, as amended

EC Regulations: Control of Major Accident Hazard Regulations 2015
Registration Evaluation, Authorisation and Restriction of Chemicals Regulations 2006, as amended
Classification Labelling and Packaging Regulations 2008, as amended

15.2 Chemical Safety Assessment Not applicable

16. OTHER INFORMATION

(a) Changes

Issue	Issue Date	Changes
7	06/02/2017	Re-written

(b) Abbreviations and acronyms

(c) References

HSE/CBI EIG publication “Guidance for the Safe management of the Disposal of Explosives”, January 2007

(d) Evaluation method for mixtures: Not applicable

(e) Meaning of Hazard Phrases and Precautionary statements

Meanings of Hazard Phrases

H201 : explosive : mass explosion hazard

Meanings of Precautionary Statements

P210 : keep away from heat /sparks / open flames / hot surfaces - no smoking

P250 : do not subject to grinding / shock / friction

P372 : explosion risk in case of fire

P401 : store at a temperature between -10 and 50°C

P501 : dispose of contents / container according to the rules relating to the explosives

(f) Advice on training

Users of detonators and other explosives should undergo suitable training, e.g. shot firer’s course.
Contact EPC-UK for availability of courses

**Notice: FOR FURTHER INFORMATION CONTACT
EPC-UK EXPLOSIVES EXPLOSIVE ENGINEERING DEPARTMENT**