

Safety data sheet

In accordance with EC regulation no. 1907/2006

Electric detonator

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

1-1	Product identifier	SERIES 4000 ELECTRIC DETONATOR Daveydet DETONATOR
1-2	Relevant identified uses of the substance or mixture and uses advised against	Pyrotechnic initiation - industrial use
1-3	Details of the supplier of the safety data sheet	DAVEY BICKFORD SAS Status: manufacturer Address: le Moulin Gaspard – 89550 Héry – France DB plant phone: +33 3 86 47 30 00 direction@daveybickford.fr
1-4	Emergency telephone number	Emergency number of the certified body: - In France: ORFILA + 33 (0)1 45 42 59 59 - For other countries according to local regulations.

2- HAZARDS IDENTIFICATION

2-1 -	Classification of the substance or mixture	Pyrotechnic item with over-pressure effect (shock wave) Classification in accordance with regulation (EC) 1272/2008: without packaging electric detonators are classified H201 (explosive: mass explosion hazard)
2-2	Label elements	

- Hazard pictogram



Signal word
 Hazard statement
 Hazard statement
 Hazard statement

Precautionary statement 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

 ${\bf P501: dispose\ of\ contents\ /\ container\ according\ to\ the\ rules\ relating\ to\ the\ explosives}$

2-3 Other hazards Not applicable: the pyrotechnic material is not accessible in normal use

3- COMPOSITION/INFORMATION ON INGREDIENTS

3-1	Substances	Metal casing enclosing:
		- Primary explosive ≤ 0.2g
		- And/or Secondary explosive ≤ 0.8g
		- And/or Retardant 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 mass equivalent TNT : 1 g equivalent TNT per detonator
3-2	Mixtures	Not applicable
3-2	Mixtures	Not applicable

Created on: /// Approved on: 14/06/2016 Page 1 of 4



4- FIRST AID MEASURES

4-1	Description of first aid measures	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.

5 - FIREFIGHTING MEASURES

5-1	Extinguishing media	None
5-2	Special hazards arising from the substance or mixture	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 incompatibilities	Storage temperature: -10 °C to +50°C Protect from humidity Storage compatibility: follow the rules of article 8 of the French ministerial decree of 20/04/2007 as amended (or local regulations outside France).
7-3	Specific end use(s)	Not applicable

8- EXPOSURE CONTROL/PERSONAL PROTECTION

8-1	Control parameters	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.

Created on: /// Approved on: 14/06/2016 Page 2 of 4



9- PHYSICAL AND CHEMICAL PROPERTIES

9-1	Information on basic physical and chemical properties	Not applicable
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.

11- TOXICOLOGICAL INFORMATION

	No hazards identified for the item
effects	

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	Bioaccumulative potential	No hazards identified for the item
12-4	Mobility in soil	No hazards identified for the item
12-5	Results of PBT vPvB assessment	No hazards identified for the item
12-6	Other adverse effects	No hazards identified for the item

13- DISPOSAL CONSIDERATIONS

13-1 Waste treatment methods	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.
	All materials contaminated by pyrotechnic materials from the item should also be considered pyrotechnic waste. For further information, contact a Davey Bickford manager.

Created on: /// Approved on: 14/06/2016 Page 3 of 4



14- TRANSPORT INFORMATION

14-1	UN number	0030	0255	0456
14-2	UN proper shipping name	Electric mine detonators (blasting)	Electric mine detonators (blasting)	Electric mine detonators (blasting)
14-3	Transport hazard class(es)	1.1B	1.4B	1.4\$
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 Description: detonators, electric for blasting	Description : detonators , electric for blasting
	- IMDG specifics (sea)	None	None	None
14-7	Transport in bulk according to annex II of MARPOL 73/78 and the IBC Code	Not applicable	Not applicable	Not applicable

15- REGULATORY INFORMATION

15.1	Safety, health and
	environmental
	regulations/legislation
	specific for the substance
	or mixture

The primary regulations that apply are:

- Decree no. 2013-973 dated 29/10/2013
- Regulations for transporting hazardous goods
- The Labour Code
- The Defence Code, particularly Part 2 Book III Title V
- Decree no. 2010-455 related to the commercial availability and control of explosives for civilian use in application of directives nos. 93/15/EEC dated 05/04/1993 and no. 2007/23/EC dated 23/05/2007.
- The environmental code, ICPE listing (Installations Classées pour la Protection de l'Environnement), in particular headings 1310, 1311, 1313
- Regulation (EC) no. 1907/2006 as amended concerning the registration, evaluation, authorization, and restriction of chemicals (REACH)
- Regulation (EC) no. 1272/2008 as amended related to the classification, labelling, and packaging of chemicals and mixtures (CLP)

For all countries, regulations and laws covering the handling, transport, storage, usage, and destruction of explosives must be complied with, and also those governing the protection of workers, health, and the environment.

15.2 Chemical safety assessment

Not applicable

16-Other Information

General information

This sheet does not under any circumstances exempt users of the item from referring to official texts for information concerning their obligations. This sheet contains information based on the state of our knowledge of the item concerned at the time of writing. This sheet should not be considered exhaustive and refers only to normal use of the product.

Note: text in blue=modification.

Created on: /// Approved on: 14/06/2016 Page 4 of 4