SAFETY DATA SHEET
Non-electric detonators with shock tube, Daveynel

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued 05.05.2015

1.1. Product identifier

Product name Non-electric detonators with shock tube, Daveynel
Synonyms DAVEYNEL detonators, DAVEYNEL surface delay connectors, non-electric detonators with shock tube (series 42000)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation Pyrotechnic initiation, industrial use.
The chemical can be used by the general public No

1.3. Details of the supplier of the safety data sheet

Manufacturer
Company name DAVEY BICKFORD SAS
Postal address le Moulin Gaspard
Postcode 89550
City Héry
Country France
Tel +33 3 86 47 30 00

Importer
Company name OY FORCIT AB
Postal address P.O.Box 19
Postcode 10901
City Hanko
Country Finland
Tel +358 (0)207 440 400
E-mail forcit@forcit.fi

1.4. Emergency telephone number

Emergency telephone National poison information center / National helpdesk: countrywise telephone number

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

DSD/DPD Classification, Comments Not classified.
Classification notes CLP Not classified.
Pyrotechnic item with excess pressure effect (shock wave).

2.2. Label elements
2.3. Other hazards
PBT / vPvB
Not determined.
Other hazards
Not applicable: the pyrotechnic material is not accessible.

SECTION 3: Composition/information on ingredients
3.1. Substances
Substance additional information
The item contains:
- An enclosing metal case with primary explosive < 0.5 g and/or secondary explosive < 1 g and/or retardant composition < 2 g.
- A shock tube of a variable length (kept in the case by a plastic plug placed at the open end of the case). This plastic tube contains a pyrotechnic composition (preparation containing octogen (HMX)).

SECTION 4: First aid measures
4.1. Description of first aid measures
General
Protect yourself, notify emergency responders and take the victim to safety.
Inhalation
Not determined.
Skin contact
Not determined.
Eye contact
Not determined.
Ingestion
Not determined.
4.2. Most important symptoms and effects, both acute and delayed
General symptoms and effects
Not relevant.
4.3. Indication of any immediate medical attention and special treatment needed
Other Information
For injuries due to splinters, provide first aid then request medical advice if necessary.
In case of an explosion nearby, check hearing.
Treat symptoms in all cases.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media
None.
5.2. Special hazards arising from the substance or mixture
Fire and explosion hazards
Set up a safe 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 completely cooled.
5.3. Advice for firefighters
Special protective equipment for firefighters
When intervening, wear special fire prevention equipment (respiratory device, helmet, etc.).

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General measures
Pyrotechnic materials spilled accidentally must be collected by authorised personnel in order to be disposed of and if necessary, destroyed (see waste handling, section 13).
Avoid any impacts, frictions or anything that may lead to a spark or electrostatic discharge.
Keep away from incompatible chemicals.
In case of breakage of a packaging of pyrotechnic items, transfer these items to a wood or cardboard container and avoid damaging them (impact, spark, heat, etc.).

6.2. Environmental precautions
Environmental precautionary measures Not determined.

6.3. Methods and material for containment and cleaning up
Cleaning method Not determined.

6.4. Reference to other sections
Other instructions Fire-fighting, see Section 5.
Personal protection, see Section 8.2.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Handling Handle with care, avoiding impacts, friction, and exposure to heat, open flame, electrostatic charges, etc. No smoking.
Any use except by trained personal as directed by technical instructions is prohibited.
Never handle/use damaged products. In case of products that are potentially or visually damaged, contact the seller or Davey Bickford to obtain the information necessary to process these products.

7.2. Conditions for safe storage, including any incompatibilities
Storage Protect from moisture. Storage temperature: -30°C to +50°C. National regulations must be followed with handling and storage.

7.3. Specific end use(s)
Specific use(s) See Section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Other Information about threshold limit values Not determined.

8.2. Exposure controls
Safety signs

Respiratory protection
Respiratory protection Do not breathe fumes after detonation.

Hand protection
Hand protection Protective gloves are recommended.

Eye / face protection
Eye protection Goggles/face shield are recommended.

Skin protection
Skin protection (except hands) No recommendation given.

Hygiene / Environmental
Specific hygiene measures When using do not eat, drink or smoke.

Appropriate environmental exposure control
Environmental exposure controls Not determined.

Other Information
**SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Comments, Odour limit</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, pH (as supplied)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Melting point / melting range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Boiling point / boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Flash point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Explosion limit</td>
<td>Not determined</td>
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<tr>
<td>Comments, Vapour pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Vapour density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Specific gravity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility description</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in fat</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Partition coefficient: n-octanol / water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Spontaneous combustibility</td>
<td>Not determined</td>
</tr>
<tr>
<td>Comments, Decomposition temperature</td>
<td>Not determined</td>
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<tr>
<td>Comments, Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not determined</td>
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</table>

### 9.2. Other information

#### Other physical and chemical properties

<table>
<thead>
<tr>
<th>Comments</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
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</tbody>
</table>

**SECTION 10: Stability and reactivity**

### 10.1. Reactivity

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### 10.2. Chemical stability

<table>
<thead>
<tr>
<th>Stability</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stable within the storage temperatures recommended in section 7 and within the item's usage limitations (expiration date).</td>
</tr>
</tbody>
</table>

### 10.3. Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Possibility of hazardous reactions</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### 10.4. Conditions to avoid

<table>
<thead>
<tr>
<th>Conditions to avoid</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid any exposure to high temperature, impact, friction or electrostatic discharge.</td>
</tr>
</tbody>
</table>

### 10.5. Incompatible materials

<table>
<thead>
<tr>
<th>Materials to avoid</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acids and alkalis.</td>
</tr>
</tbody>
</table>

### 10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Hazardous decomposition products</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fumes contain lead.</td>
</tr>
<tr>
<td></td>
<td>Possible release of carbon oxides and nitrogen oxides. (NOx, CO, CO2)</td>
</tr>
</tbody>
</table>

**SECTION 11: Toxicological information**
11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data: No specific health warnings noted.

Acute toxicity, Mixture estimate

Assessment of acute toxicity classification: Not determined.

Potential acute effects

Skin corrosion / irritation, other information: Not determined.

Assessment eye damage or irritation, classification: Not determined.

Delayed effects / repeated exposure

Inhalation: Not determined.

Sensitisation: Not determined.

STOT-single exposure: Not determined.

STOT-repeated exposure: Not determined.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity: Not determined.

Teratogenic properties: Not determined.

Reproductive toxicity: Not determined.

Other adverse Toxicological effects: Not determined.

Symptoms of Exposure

Other Information: Not determined.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity: Not classified as dangerous to the environment.

12.2. Persistence and degradability

Persistence and degradability: Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential: Not determined.

12.4. Mobility in soil

Mobility: Not determined.

12.5. Results of PBT and vPvB assessment

PBT assessment results: Not determined.

12.6. Other adverse effects

Other adverse effects / Remarks: Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal:

Do not allow runoff to sewer, waterway or ground. Do not mix with normal waste.

Processing and destruction require specific procedures and must be covered in a special study that takes into account the product's condition and the handling of waste after destruction. This operation must be performed by trained and authorised personnel.

All materials contaminated by pyrotechnic materials from the item should also be considered pyrotechnic waste.

For any further information, please contact the seller or manufacturer.

Product classified as hazardous: Yes
**SECTION 14: Transport information**

### 14.1. UN number
ADR 0360  
RID 0360  
IMDG 0360  
ICAO/IATA 0360  
Comments Even UN number 0361 (1.4B) or 0500 (1.4S) can be used depending on the packaging.

### 14.2. UN proper shipping name
ADR DETONATOR ASSEMBLIES, NON-ELECTRIC  
RID DETONATOR ASSEMBLIES, NON-ELECTRIC  
IMDG DETONATOR ASSEMBLIES, NON-ELECTRIC  
ICAO/IATA DETONATOR ASSEMBLIES, NON-ELECTRIC

### 14.3. Transport hazard class(es)
ADR 1.1B  
RID 1.1B  
IMDG 1.1B  
ICAO/IATA 1.1B  
Comments Even hazard class 1.4B (UN number 0361) or 1.4S (UN number 0500) can be used.

### 14.4. Packing group
Comments Not determined.

### 14.5. Environmental hazards
Comments Not determined.

### 14.6. Special precautions for user
EmS F-B, S-X  
Special safety precautions for user Not determined.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Additional information. Not determined.

**SECTION 15: Regulatory information**

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Legislation and regulations For all countries, the regulations and laws that cover the handling, transportation, storage, usage and destruction of explosives must be followed, as well as those governing the protection of workers, health and the environment.  
Comments For professional users only.

### 15.2. Chemical safety assessment
CSR required No

**SECTION 16: Other information**

### Training advice
Training for handling and use of explosives and detonators.

### Important data sources used to construct the safety data sheet
CLP Regulation (EC) 1272/2008

### Version
1

### Responsible for safety data sheet
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