



**Lo STABILIMENTO MILITARE "PROPELLENTI"**

Ente Italiano autorizzato dal Ministero delle Infrastrutture e dei Trasporti

**CONSIDERATO**

1) La "Default fireworks classification table" annessa al documento UN/ST/SG/AC.10/32/Add.1 Sez. 2.1.3.5.5 del 25 Gennaio 2005 (ADR)

2) la richiesta della Società F.D.F. Srl sita in Via Nazionale, 28 - 83020 SIRIGNANO (AV) - ITALIA

**ATTRIBUISCE**

l'artificio pirotecnico **ELIOS**

- in possesso delle proprietà descritte nei documenti presentati dalla Ditta richiedente:

- alla DIVISIONE **1.4**

- GRUPPO di compatibilità **G**

- Nome e N° UN in accordo con il codice ADR: Artificio pirotecnico **0336**

**Clausole supplementari::**

- Imballaggi in fibra di cartone
- Massa netta per imballaggio max: .. /

Validità: La notifica è emessa con possibilità di revoca in qualsiasi momento.  
La presente non è valida senza il timbro dell'ENTE

Fontana Liri, li 08/09/2006

Il DIRETTORE dello SMP

Col. Co. Ing. **MARCO LAMONACA**

Timbro dell'ENTE



MINISTERO DELLA DIFESA  
AGENZIA INDUSTRIE DIFESA  
P.I. 07281771001 - C.F. 97254170588



Stabilimento Militare Propellenti  
Fontana Liri (FR) - Corso Trieste, 1 - 03035  
Tel. 0776/528135-528121 - Fax 0776/525000





## FEUX A MAIN ROUGE / RED FLARE

# ELIOS

Conforme à SOLAS 74/98 Mod 96/98 Res : MSC.81(70), MSC 226(82)



0474/10

### SIGNAL de SECOURS DIURNE et NOCTURNE

Durée : 60 s à 15.000 cand.

#### ATTENTION

Produit une flamme rouge  
Utiliser uniquement en vue d'un bateau ou  
de secours

#### UTILISATION

Tenir le feu la flèche vers le haut  
Oter le bouchon supérieur  
Tirer vivement l'anneau à 45° vers le haut (dessin)  
Démarrage combustion après 2 s environ, tenir  
verticalement pendant toute la combustion

Produit classé D.M 559/C.24960.XVJ (1143)  
Masse active net : gr. 80 ca.  
Fabrication : FDI/Italie/ www.fdnautica.it  
Distribué par VDM/France  
www.forwater.fr

### DISTRESS SIGNAL for NIGHT and DAY USE

Durée : 60 s à 15.000 cand.

#### WARNING

Produces hot red flame  
Use only when a vessel is in sight

#### INSTRUCTIONS

Hold signal with arrow pointing upward  
Remove the upward cap  
Hold the flare firmly and pull the ring at 45°  
Fire vertically, wait 2 to 3 s for ignition

Approbations : RINA MED 155809Cs  
USCG 160.121 / EC0474  
CRS 01-007132/014588  
USTC : 319 032 001

Ne pas utiliser après la date d'expiration / Do not use after expiry date

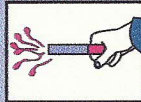


Date production

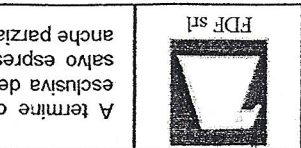
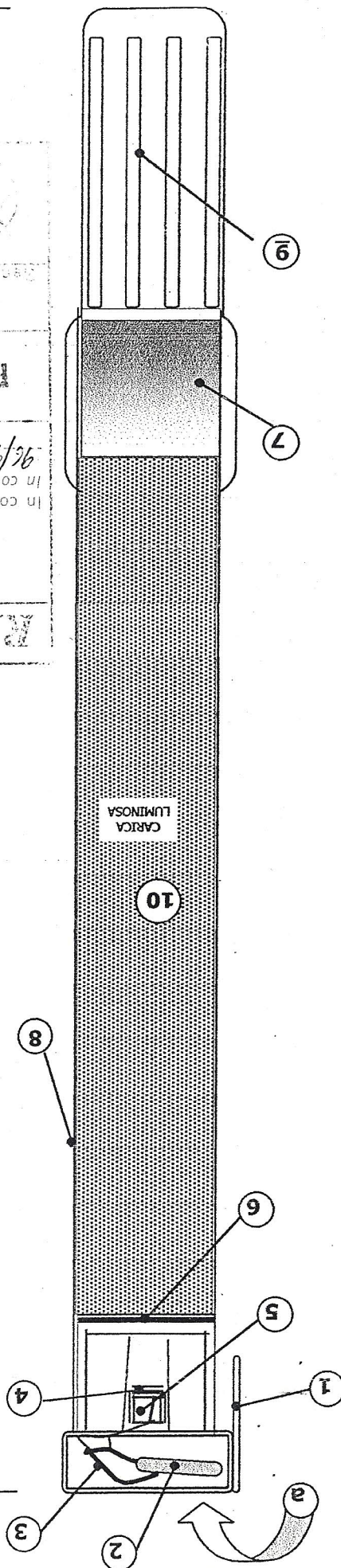
Lot

Date expiration

Lire les instructions avant utilisation



30 ± 1 mm



A termine di legge è riservata la proprietà esclusiva del presente disegno ed è vietato, salvo espressa autorizzazione, di riprodurlo anche parzialmente.

Disegno n°	F.H.F.R.
Firma	
Data	SETT. 03
Scala	1:1

F.D.F. srl  
Sede Legale: 83029, S. Angelo (AV)  
Via Nazionale 28  
Stabilimento: 82014, Pannofraro (BN)  
Località: Basso Caputoio  
P. IVA: 020 75 710 649

Dati tecnici	
Accensione	a strappo
Contenitore	metallo
Durata fuoco	65 secondi ca.
Peso	260 gr. ca.
Massa attiva	120 gr. ca.

19 APR 2004  
FDF - 0003196  
In compliance with: MAREC DIRECTIVE 92/98/EC AS AMENDED

APPROVATO

particolare	materiale
a tappo accenditore	plastica
1 linguetta tappo	plastica
2 anello	metallo
3 sagola	fibra naturale
4 molla con spirale	metallo
5 innescò	metallo
6 carichetta ritardo	prod. chimici
7 contenitore carica luminosa	cartone
8 involucro segnale	metallo
9 impugnatura	plastica
10 carica luminosa	prod. chimici

LEGGENDA



# Material Safety Data Sheet

conforming to 91/155/EGW



<b>1</b>	<b>Identification of the substance and of the company</b>	
1.1	PRODUCT NAME	HANDFLARE
1.2	TRADE NAME	ELIOS
1.3	USE OF PRODUCT	Marine-Land distress signal
1.4	DESCRIPTION	Pyrotechnic signal, emits bright light on firing. <b>For outdoor, day and night time use.</b>
1.5	MANUFACTURER	F.D.F. S.r.l. Stabilimento di Pannarano – Bn Tel. 0824 83 07 80 Fax 0824 83 09 42
1.6	EMERGENCY CONTACT	0824 83 07 80

<b>2</b>	<b>Composition / Information on ingredients</b>			
2.1	CHEMICAL CHARACTERIZATION	Oxidation and combustible mixture.		
2.2	DESCRIPTION	Pressed pyrotechnical powder. This composition cannot be converted to individual ingredients and is sealed inside the product.		
2.3	HAZARDOUS INGREDIENTS	EC- No.	CAS- No.	R-sentences
	STRONTIUM NITRATE	233-131-9	10042-76-9	8,36,38
	MAGNESIUM	231-104-6	7439-95-4	11,15
	OIL	62742-71-8		none
	PVC POWDER		9002-86-2	none
	BLAKPOWDER	231-818-8	7757-79-1	2
				1 - 3 %

<b>3</b>	<b>Hazard Identification</b>	→ This product represents low hazard in its unfired form ←
3.1	HAZARD	When fired the product emits flame. Do not point at people or property the lighted signal.
3.2	INHALATION	May be mildly irritating to respiratory system.
3.3	SKIN CONTACT	Contact with exhaust flame or burning flare can cause severe burns.
3.4	EYE CONTACT	Irritating to eyes
3.5	INGESTION	Harmful if swallowed
3.6	ENVIRONMENTAL HAZARD	Not classified as hazardous to the environment

<b>4</b>	<b>First-aid measures</b>	
4.1	AFTER INHALATION	Having problems after inhaling smoke, consult a physician
4.2	AFTER EYE CONTACT	Flush with water, consult a physician
4.3	AFTER INGESTION	Having problems after swallowing smoke, consult a physician
4.4	AFTER SKIN CONTACT	Flush with water

<b>5</b>	<b>Fire Fighting Measures</b>	
5.1	EXTINGUISHING MEDIA	Once the signal is ignited, it can not be extinguished. For secondary fires = water
5.2	SPECIAL PROTECTION GEAR	None

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<b>6</b>	<b>Accidental Release Measures</b>
6.1	METHODS FOR CLEARING UP Collect using non-sparking tools.
6.2	PERSONAL PRECAUTIONS Use protective gloves.
6.3	ENVIRONMENTAL MEASURES Not applicable

<b>7</b>	<b>Handling and storage</b>
7.1	HANDLING Conform with instructions printed on the signal.
7.2	STORAGE Store in cool and dry environment, avoid temperatures > 100 °C

<b>8</b>	<b>Personal Protection &amp; Exposure Controls</b>
8.1	HAND PROTECTION Not applicable
8.2	EYE PROTECTION Not applicable
8.3	RESPIRATORY PROTECTION Not applicable
8.4	PERSONAL PROTECTIVE EQUIPMENT Not applicable
8.5	SPECIFIC MEASURES No smoking

<b>9</b>	<b>Physical &amp; Chemical Properties</b>
9.1	APPEARANCE Metal tube with plastic handle and plastic top lid.
9.2	COLOUR Passed tube with orange label, yellow handle and top lid.
9.3	ODOUR None
9.4	AUTOIGNITION > 250 °C
9.5	EXPLOSION RISK Not applicable

<b>10</b>	<b>Stability and reactivity</b>
10.1	CONDITIONS TO AVOID Temperatures > 100 °C Strong mechanical impact, pushing or throwing
10.2	HAZARDOUS REACTIONS During intended use : flames, heat and smoke
10.3	HAZARDOUS CORROSION PRODUCTS Not applicable

<b>11</b>	<b>Toxicological Data ( for products arising during intended reaction )</b>
11.1	ACUTE TOXICITY Inhalation of fume gases ( fine dust of magnesium oxide )
11.2	SENSITISATION None
11.3	PRIMARY IRRITATION None
11.4	ADDITIONAL INDICATIONS None

<b>12</b>	<b>Ecological Data</b>
12.1	GENERAL INDICATIONS There is no information available at the present time relating to ecological effects for this product.



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13	Disposal considerations	
13.1	WASTE MATERIALS	Destruction must only by experts. Used product may be disposed as ordinary plastic/metallic waste.
13.2	CONTAMINATED PACKING	May burns rapidly.

14	Transport Information ADR	
14.1	UN No.	0336
14.2	PROPER SHIPPING NAME	Signal devices, hand
14.3	TRANSPORT CLASS	1.4 G
14.4	PACKING INSTRUCTION	P135
14.5	LABEL	1.4

15	Regulatory Information	
15.1	LABELING EWG RESTRICTIONS	Not applicable
15.2	NATIONAL RESTRICTIONS	Not applicable
15.3	WATER POLLUTION CLASS	Not classified as Marine Pollutants

16	Other information	
16.1	R-SENTENCES	<p>2 explosive, due to heavy impact, friction or open fire.</p> <p>8 inflammable, when in contact with other combustible materials.</p> <p>11 highly inflammable.</p> <p>15 highly inflammable gases occur, when reacting with water.</p> <p>36 irritating for eyes.</p> <p>37 irritating for respiratory organ.</p> <p>38 irritating for skin.</p>
16.2	SAFETY PHASES	<p>2 keep out of the reach of children</p> <p>S15 keep away from heat</p> <p>S16 keep away from sources of ignition – No smoking</p> <p>S17 keep away from combustible material</p> <p>S35 this product must be disposed of in a safe way</p> <p>S43 in case of fire use water</p>
16.3	Note	<p>The current Material Safety Data Sheet was defined on the basis of knowledge of the product at the date of issue.</p> <p>Therefore, data provided in this form can not be considered as exhaustive.</p> <p>It is the duty of the operator :</p> <p>a. to develop under his own responsibility, the safety dispositions regarding the operation of the product taking into account the data from this form.</p> <p>b. to pass to all users and operators the appropriate safety data and warning the risks mentioned in the documentation relative to the utilisation of the product.</p> <p>c. to be cautious of possible risks faced when the product is used for other utilisation than those for which it has been designed.</p>