



Div: EVANinc

Explosives
EXPERTS
Explosifs

RED HAND HELD FLARE SOLAS
Safety Data Sheet
Date of Issue : 21/07/2017
Version : 1.1

SECTION 1 : identification of the product and of the company

1.1. Product identifier

Product name : RED FLARE PM5 SOLAS
Synonyms : N/A
Product code : 802 / 807 / 52186 / 52286

1.2. Relevant identified uses of the product and uses advised against

Use of the product : Safety signal item. Visual signal for ships, lifeboats & liferafts.
Use advised against : For outdoor daytime use only

1.3. Details of the supplier/importer of the product

Supplier : Panzera Sas (manufactured FDF) Regione Olmi 78 10041 Carignano (TO) ITALY Tel : +39 011 9697308 / 9690317 Fax : 410-822-7759 email: info@panzera.it www.panzera.it	Importer / Assembler : CIL/Explosives 533 Argenteuil Lachute, QC J8H 3Y2 Tel : 450-566-0655 Fax : 450-566-0677 email: reception@cilexplosives.com www.cilexplosives.com
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1.4. Emergency telephone number

Emergency number : Canutec : 1-613-996-6666

SECTION 2 : Hazards identification

2.1. Classification of the product

Explosives

Category 1.4

H204



Hazard pictograms :

Signal word :

Hazard statements :

Precautionary statements :

Warning

H204

Fire or Projection hazard

P201

Keep away from heat/open flames/hot surface

P250

Do not subject to grinding/shock/friction

P370&P380

In case of fire: Evacuate area

P401

Store in a dry place and not over 50 C

P501

Dispose of contents/container as hazardous waste in accordance with local regulations

Other hazards not contributing to the classification :

P102

Keep out reach of children

P309&P311

If exposed or if you feel unwell: Call a POISON CENTER or Doctor/Physician

P301&P310

If SWALLOWED: immediately call a POISON CENTER or Doctor/Physician

When fired, a hot red flame is emitted from this product

Do not point and/or fire the product at people or properties

For outdoor distress signaling use only. Do not ignite in confined spaces.

Do not inhale

Product becomes hot during operation

Do not use if damaged or dented

SECTION 3 : Composition/information on ingredients

Gross Weight: 240 gr
Chemical characteristic: Oxidizer and fuel mixture
Description: Pressed pyrotechnical powder sealed inside the product

Component	CAS #	EINCS #	%AGE
Strontium nitrate	10042-76-9	233-131-9	17%
Magnesium	7439-95-4	231-104-6	n/a

Note : Due to Confidential Business Information i.e "Trade Secrets", the exact percentage of each ingredient has not been disclosed. CBI information will be shared with appropriate authorities if circumstances warrant.

SECTION 4 : First aid measures

4.1. Description of first aid measures

It regards the substances inside the product only. In case of :

First-aid measures after inhalation : Having problems after inhaling smoke, consult a physician
First-aid measures after skin contact : Wash with abundant water and soap
First-aid measures after eye contact : Flush with water at least 10 minutes. If symptoms persist, seek medical advice
First-aid measures after ingestion : Do not induce vomiting. Seek medical attention at once.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effect : See section 2 labeling and section 11

4.3. Indication of any immediate medical attention and special treatment needed

Not defined

SECTION 5 : Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use any extinguishing media for initial fire.
Once ignited units cannot be extinguished until all composition has been consumed.
Unsuitable extinguishing media : N/A

5.2. Special hazards arising from the chemical

Fire hazard : Do not keep the product at temperature over 71 degrees Celsius. Keep product away from flames.
Explosion hazard : If exposed to flame, units will burn and release large volumes of

Reactivity : light, smoke and/or hot gases.
N/A

5.3. Advice for firefighters

Firefighting instructions : Once ignited units cannot be extinguished until all composition has consumed.
Protection during firefighting : For fire in enclosed areas must use self-contained breathing apparatus (SCBA)

SECTION 6 : Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment : N/A
Emergency procedures : N/A

6.2. Environmental precautions

Avoid losses to be released in water, ground or drainage system

6.3. Methods and material for containment and cleaning up

For containment : N/A
Methods for cleaning up : In case of breaking of the product, collect all the composition lost with a plastic broom. Waiting for disposal, keep away from ignition sources.

SECTION 7 : Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Follow printed instructions on this product at all time.
Avoid the product to hit solid surfaces.
Avoid shocks and handle with care.
Don not attempt to dismantle this product
Hygiene measures : Wash Thoroughly after handling

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Temperature of storage has to be under 75 degrees Celsius
Incompatible products : Store away from flammable material
Incompatible materials : Direct sunlight, sources of heat
Storage temperature : Under 75 degrees Celsius
Heat and ignition sources : KEEP PRODUCT AWAY FROM : heat sources, ignition sources

Prohibitions on mixed storage :	N/A
Storage area :	Store in well ventilated area, away from children
Special rules on packaging :	Store in manufactures approved packaging
Packaging materials :	Cardboard box

SECTION 8 : Exposure controls/personal protection

8.1. Control parameters

None set

8.2. Exposure controls

Appropriate engineering controls :	No fire, sparks close to the item
Hand Protection :	If substances are released from the product, handle with rubber or PVC gloves.
Eye protection :	Shatter proof glasses or goggles
Skin and body protection :	Normal industrial hygiene
Respiratory protection :	If necessary use an acid filter mask (EN143 Type P, EN149 Type FFP-S)
Other information :	Always check applicability with your supplier of protective equipment

SECTION 9 : Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state :	N/A
Appearance :	Metallic tube with yellow plastic handle. Superior red plastic cap and yellow label.
Molecular mass :	Not applicable
Colour :	Not applicable
Odour :	Not applicable
Odour threshold :	Not applicable
PH :	Not applicable
Relative evaporation rate :	Not applicable
Melting point :	Not applicable
Freezing point :	Not applicable
Boiling point :	Not applicable
Flash point :	Not applicable
Critical temperature :	Not applicable
Self ignition temperature :	> 250 Degrees Celsius
Decomposition temperature :	Not applicable
Flammability :	Not applicable
Vapour pressure :	Not applicable
Critical pressure :	Not applicable

Relative density :	Not applicable
Density :	Not applicable
Solubility :	Composition partially soluble but product is waterproof
Log Pow :	Not applicable
Log Kow :	Not applicable
Viscosity :	Not applicable
Explosive properties :	No data available
Oxidising properties :	Not applicable
Explosive limits :	No data available
Auto ignition temperature :	> 200 Degrees Celsius

SECTION 10 : Stability and reactivity

10.1 Reactivity

Product is stable under normal conditions

10.2 Chemical stability

Product is stable under normal conditions

10.3 Possibility of hazardous reactions

Product is stable under normal conditions

10.4 Conditions to avoid

Avoid Temperature > 75 degrees Celsius

Keep away from sources of ignition

10.5 Incompatible materials

Solvents, hydrocarbon, petroleum based products

10.6 Hazardous decomposition products

Emits a large quantity of gases and a strong heat

SECTION 11 : Toxicological information

11.1 Information on toxicological effects

Under normal operating circumstances, there are no known acute toxic hazards resulting from single exposure to the product of combustion from the signal. However, abuse or misuse of the product could result in situations where exposure to the combustion of the product could reach harmful levels for vulnerable individuals.

Ingredient	Oral LD50	Skin LD50	LC50
Strontium Nitrate	Rat is 1892 mg/Kg	Not stated	No information found

Acute toxicity :	Harmful if swallowed. ATE calculation: 901 mg/kg
Skin corrosion/irritation :	Composition may irritate
Serious eye damage/irritation :	Composition may irritate
Respiratory or skin sensitisation :	Composition may irritate
Germ cell mutagenicity :	No deleterious effects known
Carcinogenicity :	No deleterious effects known
Reproductive toxicity :	No deleterious effects known
Specific target organ toxicity (single exposure) :	No deleterious effects known
Specific target organ toxicity (repeated exposure) :	No deleterious effects known
Aspiration hazard :	No deleterious effects known
Potential adverse human health effect and symptoms :	No deleterious effects known
Symptoms/injuries after inhalation :	Composition may irritate
Symptoms/injuries after skin contact :	Composition may irritate
Symptoms/injuries after eye contact :	Composition may irritate
Symptoms/injuries after ingestion :	No deleterious effects known
Symptoms/injuries after intravenous administration :	Not applicable
Chronic symptoms :	No deleterious effects known

SECTION 12 : Ecological information

12.1. Toxicity

Aquatic Toxicity : Not defined

12.2. Persistence and degradability

The composition inside the product is partially water soluble.

12.3. Bioaccumulative potential

Not Defined

12.4. Mobility in environmental media

Avoid the product release in water (rivers, lakes, sea). It may slowly decompose and release compounds easily absorbed by water and soil.

12.5. Other adverse effects

The combustion gases may contribute to the greenhouse effect if release in a very high quantities.

SECTION 13 : Disposal considerations

13.1.. Disposal methods

Disposal should be carried out in accordance with local health, safety, waste, environmental, storage/manufacture of explosives regulations.

Fired products: Subject to local authority arrangements
Expired products: Return to authorized distributor where/as permitted by local regulation for disposal or recycling.
Damaged Products: Repack in original packaging and treat as expired products

SECTION 14 : Transport information

14.1.. UN number

UN number : 0191

14.2.. UN proper shipping name

UN proper shipping name : Signal devices, hand
UN hazard class : 1.4G



UN DG Placard :
Packing group : II - Medium Danger

SECTION 15 : Regulatory information

Safety, health and environmental regulations /
Legislation specific for the substance or mixture : None specified

Chemical safety assessment : A chemical safety assessment has not been carried out on this mixture

Other regulations : For handling, use, storage, transportation and disposal of this product follow local, national and international rules and the regulations in forces.

SECTION 16 : Other information

Revision information : 21/07/2017

Referring to Section 3 of this Safety Data Sheet, R-phrases and H-Statements for the inner composition components are clarified below:

R-Phrases

R8	Contact with combustible material may cause fire
R11	Highly flammable
R15	Contact with water liberates extremely flammable gases
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin

H-Statements

H228	Flammable solid
H251	Self-heating, may catch fire
H261	In contact with water releases flammable gases
H272	May intensify fire: oxidizer
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

It is recommended not to ignite the product indoor. Use only as emergency and distress signal. Every other use is dangerous and condemned by the law.

The information reported in this Safety Data Sheet is referred to the indicated product and may not be valid if the product is used with other products.

The manufactured company and the supplier are not responsible for the improper use of this product, different from the indication reported in this SDS or printed on the label.

The information is based on today knowledge on the product (and its components).

The operator responsibility includes:

- To apply the safety measures on the product utilization.
- To report the other users the safety measures and the appropriate precautions while using the product.
- To be aware of risks that may happen while using the product improperly.