

Safety data sheet

Product name: **Proteus Parachute Rocket, Red**
Doc. Code: SDS Proteus Parachute Rocket, Red Edition 1.4

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

1.1. Product identifier

Product Name: Proteus Parachute Rocket, Red

Article Nos: N/A

Document code: SDS Proteus Parachute Rocket, Red Edition 1.4

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

Use: distress signal

Uses advised against: none specified

1.3. Details of the supplier of the Safety Data Sheet

Company / manufacturer: Pyrotechnourgiki Ltd – Marine Signals – Fireworks.

Company address: Eleonas Thivon, PC 32200, Thiva, Greece

E-mail / internet: info@pyrotech.gr www.pyrotech.gr

Telephone number: (+30) 2262071796

Telefax number: (+30) 2262071795

1.4. Emergency telephone number:

Emergency telephone number: (+30) 2262071796

Contact person: Ask for a company representative

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Main health hazard: hazards refer to contents of rocket

Inhalation: May be mildly irritating to respiratory system

Skin contact: May be mildly irritating to skin. Contact with exhaust flame or burning flare can cause severe burns

Eye contact: Irritating to eyes

Ingestion: Harmful if swallowed

Fire and explosion hazards: Risk of explosion by shock, fire, friction, or other sources of ignition

Environmental hazards: Not classified as hazardous to the environment

CLP Classification	DPD Classification
Explosive division 1.4 - H204 Acute toxic category 4 – H302 Eye Irritant Category 2 - H-319	Explosive - R2 Harmful - R22 – R36
For full wording of hazard statements see section 16	For full wording of hazard statements see section 16

2.2. Label elements



DANGER: Contains Strontium Nitrate and Potassium nitrate

H203: Explosive; Fire, blast or projection hazard

H302: Harmful if swallowed

H319: Causes serious eye irritation

P102: Keep out of reach of children

P210: Keep out of heat/ sparks/ open flames/ hot surfaces. No smoking

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P501: Dispose of contents / container to authorized waste disposal facility
P370 + P378: In case of fire: Use water for extinction
P309 + P311: If exposed or you feel unwell: call a POISON CENTER or a doctor/ physician
P301 + P310: If swallowed: Immediately call a POISON CENTER or doctor/ physician

2.3. Other hazards

May be mildly irritating to skin and respiratory system. Contact with exhaust flame or burning flare can cause severe burns

3. COMPOSITION / INFORMATION OF INGREDIENTS

Hazardous component(s)

Under CLP EC 1272/2008

Substance	CAS No	REACH registration No	%	Mass (g)	CLP Hazard Category and H statements
Potassium nitrate	7757-79-1	Not yet available	72% in propellant mixture	52	Oxidizing solid Cat. 3 - H272
sulfur	7704-34-9	Not yet available	16% in propellant mixture	12	Skin irritant Cat. 2 – H215
Strontium nitrate	10042-76-9	Not yet available	55% in illuminating mixture	30	Oxidizing solid Cat. 3 – H272 Acute toxic Cat. 4 – H302 Eye irritant Cat. 2, H319

Also contains magnesium powder stabilized with polymerized linseed oil.

Under DPD EC1999/45

Substance	CAS number	EC number	%	Mass (g)	Symbol and Risk phrases
Potassium nitrate	7757-79-1	231-818-8	72% in propellant mixture	52	O, N: R8/50
Sulfur	7704-34-9	231-722-6	16% in propellant mixture	12	Xi: R36/37/38 52/53
Strontium nitrate	10042-76-9	233-131-9	15% in illuminating mixture	30	O, Xn: R8-22-36

4. FIRST –AID MEASURES

4.1. Description of first-aid measures

After inhalation: Move patient to fresh air. If needed, visit physician

After skin contact: If burnt, wash with water, for at least 20 minutes

After eye contact: Keep eyelids apart. Wash with plenty of water. If needed, visit a physician.

After ingestion: Contact a physician

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

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Contact with exhaust gases can cause burns. Harmful if inhaled

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

None other than above

5. FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

- *Suitable extinguishing media:* Use any extinguishing media at early stages of fire. Once the product has ignited, it cannot be extinguished
- *Not to be used:* No restriction

5.2. Special hazards arising from the substance or mixture

Product is explosive, evolving large quantities of gases and emitting large quantities of heat radiation if involved in fire.

5.3. **Advice for fire fighters:** Normal equipment

6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions: Normal industrial hygiene. Use protective gloves

6.2. Environmental Precautions

Do not let waste reach drains, sewers and bodies of water, or leak into ground

6.3. Methods and material for containment and cleaning up

Collect using non sparking tools, reuse if undamaged. Otherwise, keep for disposal by experts.

6.4. Reference to other solutions

See sections 8 and 13

7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

Avoid dropping the signal on hard surfaces

7.2. Conditions for safe storage, including any incompatibilities

Storage: Temperature should not exceed 75 ° C.

7.3. **Specific end use(s)** Distress signal

8. PERSONAL PROTECTION / EXPOSURE CONTROLS

8.1. **Control parameters:** Non set

8.2. Exposure controls

Recommended engineering controls: No fire, sparks or welding close to the items. If cleaning up spillage, use tools which cannot strike sparks

Personal protective equipment: Normally not needed. But in case of spillage,

- Respiratory protection: In case of dust, use particle filter mask, as EN 143, type P, or EN 149, type FFP-S
- Eye protection: Shutter proof glasses or goggles
- Skin protection; Normal industrial hygiene.

Specific hygiene measures: No smoking

Further information: Always check applicability with your supplier of protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance: Yellow plastic tube with red plastic caps.

Odor: None

Odor threshold value: Not applicable

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pH (concentrated product): Not applicable
Melting point (° C): not determined
Boiling point/ range (° C): not applicable
Flash point (° C): not applicable
Evaporation rate: not applicable
Flammability: Contents are flammable
Explosive properties: Intrinsically explosive.
Vapor pressure (mbar at 25 ° C): not applicable
Vapor density: not applicable
Density at 20 ° C (g/cm³): not determined
Solubility in water (% by weight): Insoluble
Solubility in solvents: not determined
Partition coefficient (log Pow): Not applicable
Autoignition temperature (° C): > 190
Decomposition temperature (° C): not determined
Viscosity: Not applicable
Oxidizing properties: Contents have oxidizing properties.

9.2. Other information

Note: These are typical values and do not constitute a specification.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable product under recommended handling and storage conditions.

10.2. Chemical stability

Stable product under recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

Stable product under recommended handling and storage conditions.

10.4. Conditions to avoid

High temperatures, above 75° C

10.5. Incompatible materials

Not applicable

10.6. Hazardous decomposition products

Product is explosive, evolving large quantities of gases and emitting large quantities of heat radiation if involved in fire.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No data available on mixture. Data based on individual components shown below.

Hazardous ingredients: strontium nitrate.

- (a) Acute toxicity: strontium nitrate: LD₅₀ oral rat: 1892 mg / Kg, harmful by ingestion
- (b) Calculated product ATE ingestion = 3440 mg / Kg, not classified as hazardous by ingestion
- (c) Skin corrosion / irritation: Sulfur: Skin irritant category 2, under CLP
- (d) Serious eye damage / irritation : Strontium nitrate: eye irritant category 2, under CLP
- (e) Respiratory or skin sensitization: No ingredients classified as sensitizers.
- (f) Germ cell mutagenicity: No deleterious effects known
- (g) Carcinogenicity: No deleterious effects known
- (h) Reproductive toxicity: No deleterious effects known
- (i) STOT – single exposure: No deleterious effects known

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(j) STOT – Repeated exposure: No deleterious effects known
(k) Aspiration hazard: No deleterious effects known
Likely routes of exposure: Contact with skin
Symptoms related to the physical, chemical and toxicological characteristics
Powders can be irritating to the skin, eyes and respiratory tract. May cause gastric irritation, nausea and vomiting.
Delayed and immediate effects, as well as chronic effects from short and long – term exposure:
No deleterious effects known
Other information: None

12. ECOLOGICAL INFORMATION**12.1. Toxicity**

No toxic ingredients contained in the mixtures.

12.2. Persistence and degradability

Not applicable. Contains inorganic material and is in form of solid article

12.3. Bioaccumulative potential

Mobility No test data on product

12.4. Mobility in soil None – product in form of solid article**12.5. Results of PVB and vPvB assessment**

Does not fulfill the criteria for classification as PVB or vPvB

12.6. Other adverse effects

Not a marine pollutant (IMDG code)

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Disposal of waste materials

Waste should be kept in separate container. No smoking!

Destruction must only be done by experts. Used product may be disposed as ordinary plastic / metallic waste.

DO NOT TRY TO DISMANTLE THE PRODUCT!

Contaminated packing: May burn rapidly

SECTION 14 TRANSPORT INFORMATION OF MSDS FOR Product: Parachute Rocket Red**14.1 ADR/RID**

UN No. : 0505

Proper shipping name: Signals, distress, ship

Transport Class: 1.4G

Packing Group: II

Packing Instruction: P135

(Packaging details: Combination UN Approved packaging 4GV - Outer Fiberboard box UN Approved 4GV, Secondary inner package

(IP): PE Bag

Label: 1.4

14.2 IMO-IMDG code

UN No. : 0505

Proper shipping name: Signals, distress, ship

Transport Class: 1.4G

Packing Group: N/A

Packing Instruction: P135

(Packaging details: Combination UN Approved packaging 4GV - Outer Fiberboard box UN Approved 4GV, Secondary inner package

(IP): PE Bag

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14.3 ICAO/IATA

UN No. : 0505

Proper shipping name: Signals, distress, ship

Transport Class: 1.4G

Packing Group: N/A

Packing Instruction: P135

(Packaging details: Combination UN Approved packaging 4GV - Outer Fiberboard box UN Approved 4GV, Secondary inner package (IP): PE Bag

Label: 1.4

• REGULATORY INFORMATION**a. Safety, health and environmental regulations / legislation specific for the substance or mixture**

None specified

b. Chemical safety assessment

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

16. OTHER INFORMATION

Inventories All information listed in EINECS

Sources of data used in this SDS : In-house data files, Literature such as Sax's dangerous properties of industrial materials, the RSC Dictionary of substances and their effects, RTECS

CLP Annex VI, tables 3.1 and 3.2

Sources of key data used: Suppliers' safety data sheets, RTECS, EU ESIS web site

R-phrases used in this document

R2 Risk of explosion by shock, friction, fire, or other sources of ignition

R8 Contact with combustible material may cause fire

R36/37/38 Irritating to eyes / respiratory system and skin

H - Statements used in this document

H204 Fire or projection hazard

H272 May intensify fire, oxidizer

H302 Harmful if swallowed

H319 Causes serious eye irritation

Based on EU regulation 1907/2006 as amended by 453/2010

The current safety data sheet was defined by Pyrotechnourgiki Ltd on the basis of knowledge of the product at the date of issue.

Therefore, data provided in this form cannot be considered as exhaustive.

It is the duty of the operator:

- To develop under his own responsibility, the safety dispositions regarding the operation of the product taking into account the data of this form.
- To pass to all users and operators the appropriate safety data and warning regarding the risks mentioned in the documentation relative to the utilization of this product.
- To be cautious of possible risks faced when the product is used for other utilization than those for which it has been designed