

1.) IDENTIFICATION OF THE PRODUCT, OF MANUFACTURER

1.1 Identification of the product

- 1.1.1) Chemical name: cannot be applied (it is a made product).
- 1.1.2) Commercial name: fuse “ PL5”, “PL6”, “PL8”, “PL10” depending on the outer diameter of product.
- 1.1.3) Names official: SAFETY FUSE (WICK OF SECURITY)

1.2) Manufacturer.

Martins & Martins Lda., Pega (Bairro de S. Domingos), Apartado 23, 2354-909 Torres Novas, Portugal

2) COMPOSITION – DISCRIPTION OF COMPONENTS

- 2.1) The product is made up (from with towards outside) of a gunpowder soul with a thread coating of jute thread and/or cotton and a impermeable polyethylene outer shell (red or normally blue)
- 2.2) Other denominations: it lands slow, it lands slow with coating, security wick.
- 2.3) N. ONU 0105
- 2.4) Components that can damage greets it:

Component	Symbol	N. CAS	N. CEE
Black powder	E		

2.5) Classification of the product:

- 2.5.1) Symbol: 1.4 S
- 2.5.2) Danger: R 10
- 2.5.3) Security councils: S 35

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3.) IDENTIFICATION OF DANGERS

- 3.1) Main dangers: product is easily inflammable. It can hurt by burns.
- 3.2) Contact with the skin: because the product is impermeable, danger of poisoning by contact with the skin does not exist, except it leaves the gunpowder towards outside.

4.) FIRST AIDS

- 4.1) Inhalation: Not applicable. If combustion smoke will be breathed, is necessary to carry the wounded to a place aired well and to consult a doctor.
- 4.2) Contact with the skin: without consequences.
- 4.3) Contact with the eyes: to clean repeatedly with water.
- 4.3) To take by oral route: to cause vomits and to consult a doctor.

5.) MESURES AGAINST FIRES

- 5.1) Correct means to extinguish fires: water, chemical dust or sand.
- 5.2) Dangers to be exposed to the product: the combustion causes poisonous smoke with nitrous oxides, carbon monoxides and suffer oxides.
- 5.3) Average of protection of the personnel: the responsible personnel of extinction must work equipped with protective material of toxic smoke.

6.) MEASURES IN CASE OF SPILLING ITSEL OCASSIONALLY

- 6.1) Protection of people: gloves
- 6.2) Protection of the surroundings: to hinder that the product drains for sewers and courses of water.
- 6.3) Methods of cleaning: to gather the fuse carefully. In case of deterioration, and it spills: the gunpowder must take shelter with the help of wood or plastic by a person who takes gloves. The blows must be avoided as much in the collection as the frictions.

7.) MANIPULATION AND STORAGE

- 7.1) Manipulation: the packing must be manipulated with well-take care of and they are due to open with tools that are exempt of spansks. To maintain remote of the heat and thermal centers .
- 7.2) Warehouse: the product must be

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8.) CONTROL OF THE EXHIBITION – PROTECTION OF PEOPLE

- 8.1) Technical measures: not know.
- 8.2) Protection of people
 - 8.2.1) Breathing: not necessary.
 - 8.2.2) Hands: to take rubble globes.
 - 8.2.3) Eyes: to take security glasses.

9.) PHYSICAL AND CHEMICAL PROPERTIES

- 9.1) Aspect: cord flexible
- 9.2) Odor: inodoro.
- 9.3) PH: no applicable.
- 9.4) Boiling point/boiling interval: the product is disturbed in 185° C and explodes in 290° C.
- 9.5) Fusion point/solidification interval: no applicable.
- 9.6) Flash point: no applicable.
- 9.7) Spontaneous combustion: 290° C
- 9.8) Explosion quality: explosive.
- 9.9) Quality for the exit of I oxygenate: no applicable.
- 9.10) Pressure of the steam: no applicable.
- 9.11) Relative density: 1,30(20/4).
- 9.12) Solubility- solubility in water: he is not soluble, in case of not being intact. Of the three components of the gunpowder: potassium is soluble in water, sulphur and coal are not soluble in water.
- 9.13) Solubility – greasy dissolvent solubility: not determined.
- 9.14) Distribution coefficient n-octane's/water: not determined.
- 9.15) Other indications:

10.) STABILITY AND REACTIVE CAPACITY OF THE PRODUCT.

The product is stable under the conditions storage and manipulation in point 7.

- 10.1) Situations to avoid: thermal centers, blows and friction.
- 10.2) Matters to avoid: organic dissolvent like for example acetone, that they dissolve the outer wrapper.
- 10.3) Dangerous products of the dissolution: The combustion causes toxic smoke with oxide of nitrogen, of carbon and suffers.

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11.) INFORMATION OF THE TOXICITY

The toxicity of the product is due to the gunpowder.

- 11.1) Acute toxicity: LD50/oral=3750mg/kg
- 11.2) Local consequences: slight irritation.
- 11.3) Sensitisation: it does not produce any sensitisation.
- 11.4) Effect I specify: no well knows.

12.) INFORMATION ENVIRONMENT

To use the product according to the good uses of work, and not to scatter in the nature that way. In the water the nitrates do not cause consumption of oxygen.

13.) CONSIDERATIONS FOR THE REMAINDER.

The used packages would have to be burned. The fuse would have to be burned under the supervision of a professional person.

14.) INFORMATION FOR THE TRANSPORT

14.1) Special norms of security the transport and I journey: in the case of a suitable packing any danger for the transport does not exist and I journey.

14.2) International agreement.

- 14.2.1) Transport by highway and railroad (ADR/RID): class 1.4S, identify number of product: 0105. Labels 1.4.
- 14.2.2) Marine transport: Code IMDG: Number ONU 0105, class 1.4S, page 1267 – label: 1.4.
- 14.2.3) Aerial transport: ICAO/IATA class 1.4S identify number 0105.

15.) INSTRUCTIONS - INFORMATION

- 15.1) Labelled (disposition 91/325-6/CEE)
- 15.2) Symbol: 1.4 S.
- 15.3) Danger group: R10 inflammable.
- 15.4) Security councils: S35 in elimination of the product and the packing is due to fulfil the security norms.

16.) OTHERS INDICATIONS

The information of this leaf of security corresponds to a present state of knowledge and is limitless. Source of data: SAX-DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS VIII ED.

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