

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name:	LIFESMOKE MK8
Manufacturers Name:	PyroPol GmbH
Address:	Lippenhorstweg 29, 21514 Hornbek, Germany
Telephone No:	+49 – (0) 4158 – 89 00 73
Telefax No:	+49 – (0) 4158 – 89 00 97
Emergency Contact:	+ 49 (0) 178 433 74 34 (24 hours)
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Description:	Pyrotechnic buoyant orange smoke signal emits bright orange smoke on firing. For outdoor day time use.

SECTION 2: INFORMATION OF INGREDIENTS

This device contains a pressed pyrotechnic composition as listed below. This composition cannot be converted to individual ingredients and is sealed inside the product.

INGREDIENTS	CAS	MASS PER PRODUCT
Potassium Chlorate	3811-04-9	<54 grams
Lactose	63-42-3	<42grams
Wax	8002-74-2	<30 grams
Oil	ZVG 530134	<10 grams
Smoke Orange	81-64-1	<66 grams
Pumice Stone Powder	--	< 3 grams
Rubber Arabicum	--	< 1 grams
Ethanol	64-17-5	< 1 grams
Water	7732-18-5	< 1 grams

SECTION 3: HAZARD IDENTIFICATION

This product represents low hazard in its unfired form. When fired the product emits an orange smoke which may cause irritation to the eyes and throat.

3.1 General Hazard:

- ❖ When fired, dense orange smoke is emitted from this product. Smoke exit becomes hot.
- ❖ Do not point (and fire) product at people or property.
- ❖ Keep out of reach of children.
- ❖ Do not fire in confined spaces. Product is designed for outdoor use only.
- ❖ In its unfired form, the product presents no hazard.
- ❖ Keep away from extreme heat.
- ❖ During function, avoid inhalation of smoke.

3.2 Health Hazards:

- ❖ If product is damaged, the contents may be harmful to skin, eyes and respiratory tract.
- ❖ Smoke produced may cause irritation to eyes and throat.

- ❖ Where this product is used for training purposes and therefore potential exposure increased, every effort must be made to ensure that personnel are upwind of the smoke.
- ❖ Medical conditions that may be aggravated by exposure to smoke are respiratory diseases that include Asthma and Emphysema.
- ❖ Risk of receiving burns during normal usage is highly unlikely.

3.3 Environmental Hazards:

- ❖ Dense orange smoke is produced on ignition of this product. Product should be fired in open space. Confined smoke can cause considerable stain damage to walls, soft furnishings and clothing material which cannot be easily cleaned.
- ❖ Products of combustion include dye, water, nitrogen, hydrogen, carbon, carbon dioxide and carbon monoxide

SECTION 4: FIRST AID MEASURES

Smoke inhalation from the smoke may cause irritation to eyes and throat. Move patient to fresh air.

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|-------------------------|---|
| 4.1 Inhalation: | having problems after inhaling smoke, consult a physician |
| 4.2 Eye Contact: | Flush with water at least 10 minutes. If symptoms persist seek medical advice. |
| 4.2 Ingestion: | Make patient drink water. Do not induce vomiting. Seek medical attention at once. |

SECTION 5: FIRE FIGHTING MEASURES

If exposed to flame units will burn and release large volumes of smoke and or hot gases.

5.1 Extinguishing Media:

- ❖ Once ignited units cannot be extinguished until all composition has been consumed. Use large volume of water to control burn.

5.2 Special protection gear:

- ❖ NONE

5.3 Fire Fighting Equipment:

- ❖ For fires in enclosed areas fire fighters must use self-contained breathing apparatus (SCBA)

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Safeguards:

- ❖ Keep product away from all sources of ignition.

6.2 Spillage:

- ❖ Collect all damaged and undamaged products and replace in original packaging for disposal. Loose composition should be treated with dry sand, carefully swept up and disposed of according to local authority regulations. The area should then be washed down with large volume of water.

6.3 Other Precautions:

- ❖ Contact appropriate emergency services.

SECTION 7: HANDLING AND STORAGE

Handle and store through United Nations UN approved packaging and procedures only.

7.1 Handling:

- ❖ Ensure that top cap is retained in place to protect firing mechanism until ready to use.
- ❖ Handle with care.
- ❖ Do not attempt to dismantle this product.
- ❖ Follow printed instructions on this product at all times.

7.2 Storage

- ❖ Store in manufactures approved packaging in a well ventilated area away from sources of heat or direct sunlight.
- ❖ Temperature of storage to be between 5°C and 50°C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Engineering Controls:	No specific controls necessary
8.2	Eye Protection:	No specific controls necessary
8.3	Skin Protection:	No specific controls necessary
8.4	Respiratory Protection:	No specific controls necessary
8.5	Personal Protective Equipment:	No specific controls necessary
8.6	General Hygiene Considerations:	Personal hygiene – wash hands after use.
8.7	Exposure Guidelines:	No exposure guidelines are available for this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:

Signal consists of a pull cord ignition and an orange / white pyro composition pressed into an orange metal can. The product is water resistant.

9.2	Odour:	None	9.3	pH-value:	N/A
9.4	State:	Solid	9.5	Boiling Point:	N/A
9.6	Melting Point:	N/A	9.7	Flashpoint:	160°C (320°F)
9.8	Self inflammability:	N/A	9.9	Explosion risk:	N/A
9.10	Solubility in water:	N/A	9.11	Reaction with Water:	None
9.12	Specific Gravity:	N/A			

SECTION 10: STABILITY AND REACTIVITY

Pyrotechnic composition is sealed within the product, the product is stable and conforms to International requirements. Auto ignition temperature is greater than 200° C.

10.1	Stability:	This product is stable under normal conditions.
10.2	Incompatibility:	Solvents, hydrocarbons, petroleum based products.
10.3	Hazardous Decomposition:	N/A
10.4	Conditions to Avoid:	Avoid extreme heat >71°C (160°F), keep away from sources of ignition. Strong mechanical impact, e.g. pushing or throwing.
10.5	Hazardous Polymerisation:	N/A

SECTION 15: REGULATORY INFORMATION

15.1 Classification: Explosive. UN Class 1.



15.2 Hazard Symbol: on outer packaging.

15.3 Risk Phrases: N/A

15.4 Safety Phrases: N/A

SECTION 16: OTHER INFORMATION

The product is designed for use in emergency situations. When user instructions are followed, this product presents minimal risk to the user and those in the general vicinity.

The above information is given based on the present state of our knowledge of this product and at the time of publication, it is given in good faith. No warranty is implied with respect to the quality or the specification of this product. The user must satisfy themselves that the product is entirely suitable for their purpose.

Signed

Olaf Flemming
Quality Management Manager