

# Material Safety Data Sheet

Information Required for Substances for Use at Work  
(C.O.S.H.H.)



## 1. Trade Name & Product Information

**Supplier:** Hayes UK Limited  
Unit 7 Eagle Industrial Estate, Billingshurst,  
West Sussex, England, RH14 9RZ.  
Tel: 08700 711700 Fax: 08700 711701

**Product Name(s):** Classic 3 & 9

## 2. Composition Information

“The smoke cartridges are a preparation and have been classified as such. The individual chemical components carry certain risk phrases which have been included on the Safety Data sheet for your information. Correctly used, the smoke from this product is non toxic”

Ingredients	CAS No.	EG No.	Symbols	Risk Phrases	Content %
Potassium Chlorate	3811-04-9	223-289-7	O,Xn,	R9-20/22	33
Ammonium Chloride	12125-02-9	235-186-4	Xn, Xi	R22-36	40

## 3. Hazards Information

**Cartridge in solid form** Harmful and Oxidising

**Special risks:** Explosive when mixed with combustible material, harmful by inhalation and if swallowed.

**Smoke generated**

**Inhalation:** Prolonged exposure or misuse can cause irritation.

**Eyes:** Prolonged exposure or misuse can cause irritation.

## 4. First Aid Measures

**Cartridge in solid form**

**General recommendation:**

Bring this safety data sheet when seeking medical advice.

**Ingestion:**

Not applicable.

**Skin contact:**

Not applicable.

**Eyes:**

Not applicable for normal use.

If product has broken up and eyes have been contaminated rinse immediately with plenty of water and seek medical advice.

**If swallowed:**

If parts or complete product has been swallowed give milk or water, do not induce vomiting, seek medical advice.

**Smoke generated**

**General recommendation:**

Bring this safety data sheet when seeking medical advice.

**Ingestion:**

Fresh air. Should problems persist seek medical advice.

**Skin contact:**

Wash with soap and water.

**Eyes:**

Should irritation rinse eyes with water for 5 minutes.

## 5. Fire Fighting Measures

**Suitable fire fighting media:** Water.

**Safety Equipment for fire fighters:** Normal protection equipment.

**Unusual Fire Hazards:** None specific.

## 6. Accidental Release Measures

**Personal:** None specific.

**Environmentally:** Unused product may not be released in drainage or natural water systems.

**Contamination cleanup:** Collect separately, and keep dry, see section 13.

## 7. Handling & Storage

**Storage precautions:** Keep away from food, drink and animal feed.

**Storage:** Store dry and keep away from sources of ignition.

**Recommendation for safety handling:** In general normal handling of pyrotechnic products, if placed on a surface always make sure to place product on a non-inflammable base, dispose of burned product completely with due care and attention.

## 8. Exposure Control and Personal Protection

### **Breathing Protection:**

Use a particle filter mask class P2 should protection be required from smoke spillage.

All kinds of generated smoke consists of solid or liquid particles it is therefore recommended that a particle mask is used during periods of long exposure in smoke filled rooms.

### **Hygienic levels, particles / m<sup>3</sup> in surrounding air:**

See national exposure limits.

### **Hygiene:**

Wash hands before eating.

## 9. Physical and Chemical Qualities

**Appearance :** PP sheath with hard pressed powder.

**Colour:** White

**Smell:** Minimal

**Ignition point:** over 200 C°

## 10. Stability and Reactivity

**Cartridge:** Stable at recommended storage.

**Smoke:** Stable in normal conditions.

## 11. Toxicological Information

### **General information:**

The complete product has not been toxicological tested.

No personal hazard is anticipated provided that the product is handled and used with due care and attention.

### **Ingoing hazardous chemicals:**

Following apply for ingoing hazardous chemicals in pure and concentrated form.

*Potassium Chlorate:* LD50 Oral rat: 1870mg/kg bodyweight. Dermal ,rabbit LD0 >2000 mg/kg.

*Ammonium chloride:* LD50 Oral rat: 1400mg/kg bodyweight.

## 12. Eco-Toxicological Information

### **General information:**

The complete product has not been eco-toxicological tested.

No environmental hazard is anticipated provided that the product is handled and disposed of with due care and attention.

### **Ingoing hazardous chemicals:**

Following apply for ingoing hazardous chemicals in pure and concentrated form.

*Potassium Chlorate:*

LC50 Fish 96h: 1750mg/1000ml, Oncorhynchus mykiss. EC50 Daphnia 48h: 599 mg/1000ml, D.Magna. IC50

Algae 72h: 0,077 mg/1000ml. ( R 53. Source N-CLASS Database )

*Ammonium Chloride:*

LC50 Fish 96h: 0,21mg/1000ml. EC50 Daphnia 48h: 0,96 mg/1000ml. IC50 Algae 72h: 0,025 mg/1000ml.

### 13. Disposal Considerations

**Used product:**

Residue from product after complete combustion may be disposed with household waste. Always ensure that product has finished burning.

**Unused or broken products:**

*National:* Shall be disposed acc. to: SFS 2001:1063. EWC-cod 16 03 04.

*Europe:* Shall be disposed acc. to EWC-cod 16 03 04

### 14. Transport Information

Product is not classified as dangerous goods acc, to: ADR / RID / IMO / DGD.

For USA: Reference Number EX-0009108.

**Tests performed according to:**

UN- Recommendations Transport Of Dangerous Goods, Model Regulations,

UN- Recommendations Transport Of Dangerous Goods Test and Criteria.

### 15. Regulatory Information

**R and S-Phrases is only for compliance for product ingredients and does not apply to the generated smoke.**

**Gas analysis is available on request.**

**Product contains potassium chlorate and ammonium chloride.**

**R-Phrases:**

R9 – Explosive when mixed with combustible material

R20/22 – Harmful by inhalation and if swallowed.

R22 – Harmful if swallowed.

R36 – Irritating to eyes.

**S-Phrases:**

S13 – Keep away from food, drink and animal feedingstuffs.

S25 – Avoid contact with eyes.

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S38 – In case of insufficient ventilation wear suitable respiratory equipment.

**Symbols:**



### 16. Other Information

The information provided in this Health & Safety Data Sheet is considered correct at the time of writing but no insurance can be given that this information is complete. It is therefore in the users own interest to clarify that the information provided is sufficient for the purpose for which the product shall be used.

**Sources:**

National Chemicals Inspectorate.

N-CLASS Database on environmental hazard classification.

Swedish Rescue Services Agency.

Swedish Defence Research Agency, report No: FOAtox 5004.

Team Safepac.

UN- Recommendations Transport Of Dangerous Goods Test and Criteria.

UN- Recommendations Transport Of Dangerous Goods, Model Regulations.