



## Smoke Pellet Safety Data Sheet Collection

[White Smoke Pellets](#)

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[Encapsulated Smoke Pellets - White](#)

[Encapsulated Smoke Pellets - Red](#)

## Safety Data Sheet

### White Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 1.1. Product Name: White Smoke Pellet  
Contains Guanidinium nitrate and Potassium chlorate  
UFI: U300-D0D8-N004-23S6
- 1.2. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 1.3. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK  
Phone +44 (0) 117 955 5304  
Fax +44 (0) 117 955 7875  
Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)  
Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

- 1.4. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Eye Dam. 1. H318; Acute Tox. 4, H332; Aquatic Chronic 3, H412
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Danger

## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H318	Causes serious eye damage.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

P261	Avoid breathing dust /smoke
P273	Avoid release to the environment.
P280	Wear protective eye / face protection.
P305 + P351 + P338+P310	If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P501	Dispose of contents/container in accordance with local / regional / international regulations.

### Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

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## - SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
Kaolin	50-60%	1332-58-7	310-194-1	Not classified	-	Yes
Guanidinium nitrate	10 -20%	506-93-4	208-060-1	Acute Tox. 4, H302: Eye Dam. 1, H318; Acute tox. 4, H332	01-2119452053-50-xxxx	No
Potassium chlorate	10 -20% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Quartz (crystalline silica)	<1%	14808-60-7	238-878-4	STOT RE 1, H372	-	Yes

## SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

### 4.1 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

#### Contact with eyes:

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

Get immediate medical advice/attention

#### Contact with skin:

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

#### Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

#### Ingestion:

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Contact with eyes

- May cause severe damage with formation of corneal ulcers and permanent impairment of vision. Causes redness and swelling.

Contact with skin

- May cause redness and irritation.
- In cases of severe exposure, blistering of the skin may develop.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide. - Unsuitable extinguishing media: Do not use water jets; Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.
- Contains an oxidising agent; may assist combustion.
- May form explosive dust/air mixtures.
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.
- Only trained and authorised personnel should carry out emergency response. - Avoid formation of dust.
- Shut off all ignition sources
- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/gas/mist/vapours/spray; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses.
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.
- Avoid formation of dust.
- Shut off all ignition sources.
- Take action to prevent static discharges.
- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.  
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.  
Damp down to avoid dust generation.  
Absorb spillage in earth or sand.  
Sweep or shovel-up spillage and remove to a safe place.  
Place in appropriate container.  
Seal containers and label them.  
Remove contaminated material to safe location for subsequent disposal.  
Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### 7.2. Conditions for storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### 7.3. Specific end use

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

- Kaolin

WEL (long term) 2 mg/m<sup>3</sup> (respirable dust, UK)

- Guanidinium nitrate

DNEL (inhalational) 3.5 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (inhalational) 10.5 mg/m<sup>3</sup> Industry, Acute/Short Term, Systemic Effects

DNEL (dermal) 1 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 870 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 500 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 500 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

- Potassium chlorate

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater)

1.15 mg/l PNEC aqua (marine water) 1.15 mg/l PNEC (STP) 115 mg/l PNEC terrestrial (soil) 3.83 mg/kg

- Quartz (crystalline silica)

(EU) OELV (long term TWA) 0.1 mg/m<sup>3</sup>

WEL (long term) 0.1 mg/m<sup>3</sup> (UK)

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Ammonium chloride (produced as part of combustion chemical reaction)  
WEL (long term) 10 mg/m<sup>3</sup> (fume or respirable dust, UK)  
WEL (short term) 20 mg/m<sup>3</sup> (fume or respirable dust, UK)  
DNEL (inhalational) 33.5 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects  
DNEL (dermal) 128.9 mg/kg (bw/day) Industry, Long Term, Systemic Effects  
DNEL (inhalational) 9.4 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects  
DNEL (dermal) 55.2 mg/kg (bw/day) Consumer, Long Term, Systemic Effects  
DNEL (oral) 11.4 mg/kg (bw/day) Consumer, Long Term, Systemic Effects  
DNEL (oral) 55.2 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects  
PNEC aqua (freshwater) 250 - 1 200 ug/l  
PNEC aqua (intermittent releases, freshwater) 430 - 1 200 ug/l  
PNEC aqua (marine water) 25 - 11 200 ug/l  
PNEC (STP) 16.2 mg/l  
PNEC terrestrial (soil) 163 - 50 700 ug/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	Off-white.
<b>Physical State:</b>	Compressed pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

### 9.2 Other Information:

- No information available

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.
- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.
- Keep away from heat and sources of ignition.
- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.
- Incompatible with alkalis (strong bases).
- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

- Acute Toxicity

Harmful if inhaled.

Classification based on calculation and concentration thresholds.

ATE mix (oral) > 2 000 mg/kg

ATE mix (inhal) 4.95 mg/l/4h (dust/mist)

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
Kaolin	>2000 mg/kg	No data available	>2000 mg/kg
Guanidinium nitrate	729.8 mg/kg	853 mg/m <sup>3</sup> air	2000 mg/kg
Potassium chlorate	500 mg/kg	4 mg/l (4 hr)	>2000 mg/kg
Quartz (crystalline silica)	No data available	No data available	No data available
Ammonium chloride (produced as a part of combustion chemical reaction)	1410 mg/kg	No data available	>2000 mg/kg (rat)



## SECTION 11. TOXICOLOGICAL INFORMATION (....)

### - Skin corrosion/irritation

Based on available data, the classification criteria are not met.

### - Serious eye damage/irritation

Causes serious eye damage.

Classification based on calculation and concentration thresholds.

### - Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

### - Germ cell mutagenicity Based on available data, the classification criteria are not met.

Quartz (SiO<sub>2</sub>) is listed in Annex III of REACH as # Suspected mutagen: The outcome in CTA assay is positive according to ISSCTA.

### - Carcinogenicity Based on available data, the classification criteria are not met.

Quartz (SiO<sub>2</sub>) is listed in Annex III of REACH as # Suspected carcinogen: IARC monographs classified the substance as carcinogenic or probably/possibly carcinogenic.

Crystalline silica in the form of quartz or cristobalite dust is carcinogenic to humans (Group 1). (IARC Monograph 100, 2012).

Exposure in high concentrations or over prolonged periods of time can lead to lung disease (silicosis) and an increased risk of lung cancer.

### - Reproductive toxicity No evidence of reproductive effects

Chemical Name	NOAEL (oral, rat)
Guanidinium nitrate	300 mg/kg bw/day (effect fertility) 350 mg/kg bw/day (effect on developmental toxicity)

### - Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

### - Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Chemical Name	NOAEL (oral, rat)
Guanidinium nitrate	100 mg/kg bw/day

### - Aspiration hazard

Based on available data, the classification criteria are not met.

### - Contact with eyes

May cause severe damage with formation of corneal ulcers and permanent impairment of vision. Causes redness and swelling.

### - Contact with skin

May cause redness and irritation.

In cases of severe exposure, blistering of the skin may develop.

### - Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting.

There may be bleeding from the mouth or nose.

### - Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

- Harmful to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds.

- Kaolin

LC50 (fish) > 1 000 mg/l (4 days)

EC50 (daphnia) > 1 000 mg/l (48 hr)

IC50 (algae) > 1 000 mg/l (72 hr)

- Guanidinium nitrate

LC50 (fish) 690 - 1 850 mg/l (4 days)

EC50 (aquatic invertebrates) 70.2 mg/l (48 hr)

EC50 (aquatic algae) 11.8 - 33.5 mg/l (72 hr)

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

- Ammonium chloride (produced as part of combustion chemical reaction)

LC50 (fish) 42.91 - 209 mg/l (4 days)

EC50 (aquatic invertebrates) 101 - 136.6 mg/l (48 hr)

EC50 (aquatic algae) 2.7 g/l (18 days)

### **12.2 Persistence and degradability**

- Kaolin This substance is not readily biodegradable
- Guanidinium nitrate Biodegradable
- Potassium chlorate Biodegradable

### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

### **12.4 Mobility in soil**

- No information available

### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

### **12.6 Other adverse effects**

- No information available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 6 Acute Toxicity; HP 14 Ecotoxic

## **SECTION 14. TRANSPORT INFORMATION**

Not classified as hazardous for transport

### **14.1 UN number**

- UN No.: Not applicable

### **14.2 UN proper shipping name**

- Proper Shipping Name: Not applicable

### **14.3 Transport hazard class(es)**

- Hazard Class: Not applicable

### **14.4 Packing group**

- Packing Group: Not applicable

### **14.5 Environmental hazards**

- Not Classified

### **14.6 Special precautions for user**

- Not Classified

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

### **14.9 Sea (IMDG)**

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable - IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: Not applicable
  - ICAO UN No.: Not applicable - ICAO Hazard Class: Not applicable –
  - ICAO Packing Group: Not applicable
- 

## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.
- The COSHH Regulations apply in the UK.
- Quartz (crystalline silica) is listed in Annex III of REACH as # Suspected carcinogen: IARC monographs classified the substance as carcinogenic or probably/possibly carcinogenic # Suspected mutagen: The outcome in CTA assay is positive according to ISSCTA.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 4. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Eye Dam. 1, H318: Classification based on calculation and concentration thresholds

Acute Tox. 4, H332: Classification based on calculation and concentration thresholds

Aquatic Chronic 3, H412: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser
- H302: Harmful if swallowed
- H318: Causes serious eye damage
- H332: Harmful if inhaled
- H372: Causes damage to organs through prolonged or repeated exposure
- H411: Toxic to aquatic life with long lasting effects
- H412: Harmful to aquatic life with long lasting effects

### Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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## Safety Data Sheet

### Red Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 1.5. Tradename: Red Smoke Pellet
- Contains Potassium chlorate and  
1-(Methylamino)anthraquinone
- UFI: D110-X0YN-000J-AV5W
- 1.6. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 1.7. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK

Phone +44 (0) 117 955 5304

Fax +44 (0) 117 955 7875

Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)

Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

- 1.8. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Skin Irrit. 2. H315; Eye Irrit. 2A. H319; Aquatic Chronic 3, H412
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Warning

## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF on skin wash with plenty of soap and water.
P273	Avoid release to the environment
P305 + P351 + P338	IF in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice / attention
P501	Dispose of contents/container in accordance with local / regional / international regulations.

### Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
1-(Methylamino)anthraquinone	11-12% w/w	82-38-2		Skin irrit. 2. H315 Eye Irr. 2A. H319 STOT. 3. H335	A registration number is not available for this substance	-
Base oil - unspecified - residual oils (petroleum), solvent-dewaxed	1 - 3% w/w	64742-62-7	265-166-0	Not classified	01-2119480472-38-XXXX	No
Potassium chlorate	20 - 25% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Sodium hydrogen carbonate	1 -3% w/w	144-55-8	205-633-8	Not classified	-	No

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## SECTION 4: FIRST AID MEASURES

**General advice:**

### SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

#### 4.2 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

##### **Contact with eyes:**

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

##### **Contact with skin:**

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

##### **Inhalation:**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

##### **Ingestion:**

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Contact with eyes

- May cause irritation.

Contact with skin

- May cause redness and irritation.
- In cases of severe exposure, blistering of the skin may develop.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

#### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide.

- Unsuitable extinguishing media:

Do not use water jets;

Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.

- Contains an oxidising agent; may assist combustion.

- May form explosive dust/air mixtures.

- Gives off irritating or toxic fumes (or gases) in a fire.

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.

- Only trained and authorised personnel should carry out emergency response. - Avoid formation of dust.

- Shut off all ignition sources

- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/gas/mist/vapours/spray; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.

- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.

- Do not allow to enter public sewers and watercourses.

- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.

- Avoid formation of dust.

- Shut off all ignition sources.

- Take action to prevent static discharges.

- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.  
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.

Damp down to avoid dust generation.

Absorb spillage in earth or sand.

Sweep or shovel-up spillage and remove to a safe place.

Place in appropriate container.

Seal containers and label them.

Remove contaminated material to safe location for subsequent disposal.

Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13



## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### 7.2. Conditions for storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### 7.3. Specific end use

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

### 8.1. Control parameters

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

- Potassium chlorate

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater)

1.15 mg/l PNEC aqua (marine water) 1.15 mg/l PNEC (STP) 115 mg/l PNEC terrestrial (soil) 3.83

mg/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	Red
<b>Physical State:</b>	Compressed pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

**9.2 Other Information:** Further safety relate physical-chemical data are not known.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.

- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.

- Keep away from heat and sources of ignition.

- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.

- Incompatible with alkalis (strong bases).

- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
1-(Methylamino)anthraquinone	No data available	No data available	No data available
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS

- Skin corrosion/irritation

Causes skin irritation.

Classification based on calculation and concentration thresholds.

- Serious eye damage/irritation

Causes serious eye irritation.

Classification based on calculation and concentration thresholds.

- Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data, the classification criteria are not met.

- Reproductive toxicity No evidence of reproductive effects

- Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

- Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

- Aspiration hazard

Based on available data, the classification criteria are not met.

- Contact with eyes

May cause severe irritation. Causes redness and swelling.

- Contact with skin

May cause redness and irritation.

In cases of severe exposure, blistering of the skin may develop.

- Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting.

There may be bleeding from the mouth or nose.

- Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

- Harmful to aquatic life with long lasting effects.

- Classification based on calculation and concentration thresholds.

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

-1-(Methylamino)anthraquinone  
No data available

#### **12.2 Persistence and degradability**

- Potassium chlorate Biodegradable
- 1-(Methylamino)anthraquinone No data available

#### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

#### **12.4 Mobility in soil**

- No information available

#### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

#### **12.6 Other adverse effects**

- No information available

### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

#### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 14 Ecotoxic

## **SECTION 14. TRANSPORT INFORMATION**

Not classified as hazardous for transport

### **14.1 UN number**

- UN No.: Not applicable

### **14.2 UN proper shipping name**

- Proper Shipping Name: Not applicable

### **14.3 Transport hazard class(es)**

- Hazard Class: Not applicable

### **14.4 Packing group**

- Packing Group: Not applicable

### **14.5 Environmental hazards**

- Not Classified

### **14.6 Special precautions for user**

- Not Classified

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: Not applicable

- ADR UN No.: Not applicable

- ADR Hazard Class: Not applicable

- ADR Packing Group: Not applicable

- Tunnel Code: Not applicable

### **14.9 Sea (IMDG)**

- Proper Shipping Name: Not applicable

- IMDG UN No.: Not applicable - IMDG Hazard Class: Not applicable

- IMDG Pack Group.: Not applicable

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: Not applicable

- ICAO UN No.: Not applicable - ICAO Hazard Class: Not applicable –

ICAO Packing Group: Not applicable

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## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

- The COSHH Regulations apply in the UK.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 5.1. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2. H315: Classification based on calculation and concentration thresholds

Eye Irrit. 2A. H319: Classification based on calculation and concentration thresholds

Aquatic Chronic 3, H412: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser
- H302: Harmful if swallowed
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H411: Toxic to aquatic life with long lasting effects

### Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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## Safety Data Sheet

### Blue Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 4.1. Tradename: Blue Smoke Pellet
- Contains Potassium chlorate and  
1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE  
and  
1-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione
- UFI: 6E30-409R-K00E-VEGQ
- 4.2. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 4.3. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK

Phone +44 (0) 117 955 5304

Fax +44 (0) 117 955 7875

Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)

Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

4.4. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Skin irrit. 2. H315; Skin SE 1. H317; Eye Irrit. 2A. H319; Carcinogenicity 2. H351; Aquatic Chronic 3, H412
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Warning

Blue Smoke Pellets

Revision: 4.1; March 2020

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## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P264	Wash skin thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention
P501	Dispose of contents/container in accordance with local / regional / international regulations.

### Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
Disperse Blue 180  (Solvent Green 3 + Solvent Violet 13)	10 – 15% w/w	69912-84-1  (128-80-3 + 81-48-1)		Skin SE 1, H317 Carcinogen 2, H351 (Skin Irrit 2, H315 Skin SE 1, H317 Eye Irrit 2, H319 STOT RE 3, H335 Aquatic Chronic 4, H413)	-	No
Potassium chlorate	20 - 30% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Gum Tragacanth Natural resin of animal origin, decolourized and dewaxed	1.5 – 2.5% w/w	9000-65-1	232-552-5	Not Classified	-	No
Sodium hydrogen carbonate	2 - 3% w/w	144-55-8	205-633-8	Not classified	-	No



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## SECTION 4: FIRST AID MEASURES

### General advice:

## SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

### 4.3 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

#### Contact with eyes:

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### Contact with skin:

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

#### Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

#### Ingestion:

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Suspected of causing cancer

Contact with eyes

- May cause irritation.

Contact with skin

- May cause redness and irritation.
- In cases of severe exposure, blistering of the skin may develop.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide.

- Unsuitable extinguishing media:

Do not use water jets;

Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.

- Contains an oxidising agent; may assist combustion.

- May form explosive dust/air mixtures.

- Gives off irritating or toxic fumes (or gases) in a fire.

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.

- Only trained and authorised personnel should carry out emergency response. - Avoid formation of dust.

- Shut off all ignition sources

- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/gas/mist/vapours/spray; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.

- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.

- Do not allow to enter public sewers and watercourses.

- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.

- Avoid formation of dust.

- Shut off all ignition sources.

- Take action to prevent static discharges.

- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.  
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.

Damp down to avoid dust generation.

Absorb spillage in earth or sand.

Sweep or shovel-up spillage and remove to a safe place.

Place in appropriate container.

Seal containers and label them.

Remove contaminated material to safe location for subsequent disposal.

Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### 7.2. Conditions for storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### 7.3. Specific end use

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

### 8.1. Control parameters

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

- Potassium chlorate

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater)

1.15 mg/l PNEC aqua (marine water) 1.15 mg/l PNEC (STP) 115 mg/l PNEC terrestrial (soil) 3.83

mg/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	Blue
<b>Physical State:</b>	Compressed pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

**9.2 Other Information:** Further safety relate physical-chemical data are not known.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.

- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.

- Keep away from heat and sources of ignition.

- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.

- Incompatible with alkalis (strong bases).

- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE	No data available	No data available	No data available
1-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione	No data available	No data available	No data available
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS
Gum Tragacanth	No data available	No data available	No data available

- Skin corrosion/irritation

Causes skin irritation.

Classification based on calculation and concentration thresholds.

- Serious eye damage/irritation

Causes serious eye irritation.

Classification based on calculation and concentration thresholds.

- Respiratory or skin sensitisation

May cause an allergic skin reaction.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data,

Suspected of causing cancer.

- Reproductive toxicity No evidence of reproductive effects

- Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

- Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

- Aspiration hazard

Based on available data, the classification criteria are not met.

- Contact with eyes

May cause severe irritation. Causes redness and swelling.

- Contact with skin

May cause redness and irritation.

In cases of severe exposure, blistering of the skin may develop.

- Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting. There may be bleeding from the mouth or nose.

- Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

- Harmful to aquatic life with long lasting effects.

- Classification based on calculation and concentration thresholds.

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

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EL50 (aquatic invertebrates) 1 g/l (48 hr)  
EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE  
No data available

1-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione  
No data available

Gum Tragacanth  
No data available

#### **12.2 Persistence and degradability**

- Potassium chlorate Biodegradable
- 1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE No data available
- 1-hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione No data available
- Gum Tragacanth No data available

#### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

#### **12.4 Mobility in soil**

- No information available

#### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

#### **12.6 Other adverse effects**

- No information available

### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

#### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 7 Carcinogenic; HP 14 Ecotoxic

## **SECTION 14. TRANSPORT INFORMATION**

Not classified as hazardous for transport

### **14.1 UN number**

- UN No.: Not applicable

### **14.2 UN proper shipping name**

- Proper Shipping Name: Not applicable

### **14.3 Transport hazard class(es)**

- Hazard Class: Not applicable

### **14.4 Packing group**

- Packing Group: Not applicable

### **14.5 Environmental hazards**

- Not Classified

### **14.6 Special precautions for user**

- Not Classified

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: Not applicable

- ADR UN No.: Not applicable

- ADR Hazard Class: Not applicable

- ADR Packing Group: Not applicable

- Tunnel Code: Not applicable

### **14.9 Sea (IMDG)**

- Proper Shipping Name: Not applicable

- IMDG UN No.: Not applicable - IMDG Hazard Class: Not applicable

- IMDG Pack Group.: Not applicable

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: Not applicable

- ICAO UN No.: Not applicable - ICAO Hazard Class: Not applicable –

ICAO Packing Group: Not applicable

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## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

- The COSHH Regulations apply in the UK.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 4.1. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2. H315: Classification based on calculation and concentration thresholds

Skin SE 1. H317: Classification based on calculation and concentration thresholds

Eye Irrit. 2A. H319: Classification based on calculation and concentration thresholds

Carcinogenicity 2. H351: Classification based on calculation and concentration thresholds

Aquatic Chronic 3, H412: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser
- H302: Harmful if swallowed
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H413: May cause long lasting harmful effects to aquatic life

### Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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## Safety Data Sheet

### Green Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 7.1. Tradename: Green Smoke Pellet
- Contains 1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE
- UFI: UH30-N004-V00W-HS2S
- 7.2. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 7.3. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK

Phone +44 (0) 117 955 5304

Fax +44 (0) 117 955 7875

Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)

Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

7.4. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Skin irrit. 2. H315; Skin SE 1. H317; Eye Irrit. 2A. H319; Carcinogenicity 2. H351; Aquatic Chronic 3, H412
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Warning

## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P264	Wash skin thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention
P501	Dispose of contents/container in accordance with local / regional / international regulations.

Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
Solvent Green 3 (1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE)	5 – 15% w/w	128-80-3		Skin SE 1, H317 Carcinogen 2, H351 (Skin Irrit 2, H315 Skin SE 1, H317 Eye Irrit 2, H319 STOT RE 3, H335	-	No
Potassium chlorate	20-30% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Gum Tragacanth Natural resin of animal origin, decolourized and dewaxed	1.5 – 2.5% w/w	9000-65-1	232-552-5	Not Classified	-	No
Sodium hydrogen carbonate	1 -3% w/w	144-55-8	205-633-8	Not classified	-	No

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## SECTION 4: FIRST AID MEASURES

### General advice:

## SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

### 4.4 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

#### Contact with eyes:

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### Contact with skin:

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

#### Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

#### Ingestion:

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Suspected of causing cancer

Contact with eyes

- May cause irritation.

Contact with skin

- May cause redness and irritation.
- In cases of severe exposure, blistering of the skin may develop.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide.

- Unsuitable extinguishing media:

Do not use water jets;

Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.

- Contains an oxidising agent; may assist combustion.

- May form explosive dust/air mixtures.

- Gives off irritating or toxic fumes (or gases) in a fire.

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.

- Only trained and authorised personnel should carry out emergency response. - Avoid formation of dust.

- Shut off all ignition sources

- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/gas/mist/vapours/spray; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.

- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.

- Do not allow to enter public sewers and watercourses.

- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.

- Avoid formation of dust.

- Shut off all ignition sources.

- Take action to prevent static discharges.

- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.  
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.

Damp down to avoid dust generation.

Absorb spillage in earth or sand.

Sweep or shovel-up spillage and remove to a safe place.

Place in appropriate container.

Seal containers and label them.

Remove contaminated material to safe location for subsequent disposal.

Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### 7.2. Conditions for storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### 7.3. Specific end use

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

### 8.1. Control parameters

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

- Potassium chlorate

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater)

1.15 mg/l PNEC aqua (marine water) 1.15 mg/l PNEC (STP) 115 mg/l PNEC terrestrial (soil) 3.83 mg/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	Green
<b>Physical State:</b>	Compressed pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

**9.2 Other Information:** Further safety relate physical-chemical data are not known.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.

- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.

- Keep away from heat and sources of ignition.

- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.

- Incompatible with alkalis (strong bases).

- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE	No data available	No data available	No data available
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS
Gum Tragacanth	No data available	No data available	No data available

- Skin corrosion/irritation

Causes skin irritation.

Classification based on calculation and concentration thresholds.

- Serious eye damage/irritation

Causes serious eye irritation.

Classification based on calculation and concentration thresholds.

- Respiratory or skin sensitisation

May cause an allergic skin reaction.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data,

Suspected of causing cancer.

- Reproductive toxicity No evidence of reproductive effects

- Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

- Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

- Aspiration hazard

Based on available data, the classification criteria are not met.

- Contact with eyes

May cause severe irritation. Causes redness and swelling.

- Contact with skin

May cause redness and irritation.

In cases of severe exposure, blistering of the skin may develop.

- Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting. There may be bleeding from the mouth or nose.

- Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

- Harmful to aquatic life with long lasting effects.

- Classification based on calculation and concentration thresholds.

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

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EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE

No data available

Gum Tragacanth

No data available

#### **12.2 Persistence and degradability**

- Potassium chlorate Biodegradable
- 1,4-BIS(P-TOLYLAMINO)ANTHRAQUINONE No data available
- Gum Tragacanth No data available

#### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

#### **12.4 Mobility in soil**

- No information available

#### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

#### **12.6 Other adverse effects**

- No information available

### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

#### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 7 Carcinogenic; HP 14 Ecotoxic



## **SECTION 14. TRANSPORT INFORMATION**

Not classified as hazardous for transport

### **14.1 UN number**

- UN No.: Not applicable

### **14.2 UN proper shipping name**

- Proper Shipping Name: Not applicable

### **14.3 Transport hazard class(es)**

- Hazard Class: Not applicable

### **14.4 Packing group**

- Packing Group: Not applicable

### **14.5 Environmental hazards**

- Not Classified

### **14.6 Special precautions for user**

- Not Classified

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: Not applicable

- ADR UN No.: Not applicable

- ADR Hazard Class: Not applicable

- ADR Packing Group: Not applicable

- Tunnel Code: Not applicable

### **14.9 Sea (IMDG)**

- Proper Shipping Name: Not applicable

- IMDG UN No.: Not applicable - IMDG Hazard Class: Not applicable

- IMDG Pack Group.: Not applicable

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: Not applicable

- ICAO UN No.: Not applicable - ICAO Hazard Class: Not applicable –

ICAO Packing Group: Not applicable

---

## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

- The COSHH Regulations apply in the UK.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 5.1. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2. H315: Classification based on calculation and concentration thresholds

Skin SE 1. H317: Classification based on calculation and concentration thresholds

Eye Irrit. 2A. H319: Classification based on calculation and concentration thresholds

Carcinogenicity 2. H351: Classification based on calculation and concentration thresholds

Aquatic Chronic 3, H412: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser
- H302: Harmful if swallowed
- H332: Harmful if inhaled
- H335: May cause respiratory irritation

### Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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## Safety Data Sheet

### Encapsulated Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 10.1. Product name: Encapsulated Smoke Pellet  
Contains Potassium chlorate and Ammonium chloride  
UFI: T330-30J5-C00F-725F
- 10.2. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 10.3. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK  
Phone +44 (0) 117 955 5304  
Fax +44 (0) 117 955 7875  
Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)  
Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

10.4. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Acute Tox. 4,H302; Eye Irr. 2A. H319; Aquatic Chronic 2, H411
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Warning

## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H302	Harmful if swallowed
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects

### Precautionary statements

P264	Wash skin thoroughly after handling
P273	Avoid release to the environment.
P280	Wear eye protection protection.
P305 + P351 + P338	If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337+P313	If eye irritation persists: get medical advice / attention
P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.

### Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
Base oil - unspecified - residual oils (petroleum), solvent-dewaxed	11-13% w/w	64742-62-7	265-166-0	Not classified	01-2119480472-38-XXXX	No
Ammonium chloride	10 - 20% w/w	12125-02-9	235-186-4	Acute Tox. H302 Eye Irrit. H319	01-2119487950-27-xxxx	Yes
Potassium chlorate	10 - 20% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Sodium hydrogen carbonate	2 -4% w/w	144-55-8	205-633-8	Not classified	-	No

Information to exposure limit values - see section 8.

## SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

### 4.5 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

#### **Contact with eyes:**

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Contact with skin:**

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

#### **Inhalation:**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

#### **Ingestion:**

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Contact with eyes

- May cause serious eye irritation. Causes redness and swelling.

Contact with skin

- May cause redness and irritation.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide. - Unsuitable extinguishing media: Do not use water jets; Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.
- Contains an oxidising agent; may assist combustion.
- May form explosive dust/air mixtures.
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.
- Only trained and authorised personnel should carry out emergency response. - Avoid formation of dust.
- Shut off all ignition sources
- Personal precautions for non-emergency personnel: Avoid breathing dust/fume/gas/mist/vapours/spray; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses.
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.
- Avoid formation of dust.
- Shut off all ignition sources.
- Take action to prevent static discharges.
- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.  
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.  
Damp down to avoid dust generation.  
Absorb spillage in earth or sand.  
Sweep or shovel-up spillage and remove to a safe place.  
Place in appropriate container.  
Seal containers and label them.  
Remove contaminated material to safe location for subsequent disposal.  
Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### **7.2. Conditions for storage, including any incompatibilities**

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### **7.3. Specific end use**

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

## **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **8.1. Control parameters**

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

- Potassium chlorate

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater)

1.15 mg/l PNEC aqua (marine water) 1.15 mg/l PNEC (STP) 115 mg/l PNEC terrestrial (soil) 3.83 mg/kg

- Base oil - unspecified - residual oils (petroleum), solvent-dewaxed  
No data available

- Sodium hydrogen carbonate  
No data available

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Ammonium chloride

WEL (long term) 10 mg/m<sup>3</sup> (fume or respirable dust, UK)

WEL (short term) 20 mg/m<sup>3</sup> (fume or respirable dust, UK)

DNEL (inhalational) 33.5 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 128.9 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 9.4 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 55.2 mg/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 11.4 mg/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 55.2 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects

PNEC aqua (freshwater) 250 - 1 200 ug/l

PNEC aqua (intermittent releases, freshwater) 430 - 1 200 ug/l

PNEC aqua (marine water) 25 - 11 200 ug/l

PNEC (STP) 16.2 mg/l

PNEC terrestrial (soil) 163 - 50 700 ug/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.





## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	White
<b>Physical State:</b>	Encapsulated pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

**9.2 Other Information:** Further safety relate physical-chemical data are not known.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.  
- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.  
- Keep away from heat and sources of ignition.  
- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.  
- Incompatible with alkalis (strong bases).  
- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

- Acute Toxicity

Harmful if swallowed.

Chemical name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
Base oil - unspecified - residual oils (petroleum), solvent-dewaxed	No data available	No data available	No data available
Sodium hydrogen carbonate	4220 mg/kg	No data available	No data available
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS
Ammonium chloride	1410 mg/kg	No data available	>2000 mg/kg (rat)

## **SECTION 11. TOXICOLOGICAL INFORMATION (....)**

- Skin corrosion/irritation

Based on available data, the classification criteria are not met.

- Serious eye damage/irritation

Causes serious eye irritation.

Classification based on calculation and concentration thresholds.

- Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data, the classification criteria are not met.

- Reproductive toxicity No evidence of reproductive effects

- Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

- Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

- Aspiration hazard

Based on available data, the classification criteria are not met.

- Contact with eyes

May cause serious irritation. Causes redness and swelling.

- Contact with skin

May cause redness and irritation.

- Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting.

There may be bleeding from the mouth or nose.

- Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

- Toxic to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds.

- Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

- Ammonium chloride

LC50 (fish) 42.91 - 209 mg/l (4 days)

EC50 (aquatic invertebrates) 101 - 136.6 mg/l (48 hr)

EC50 (aquatic algae) 2.7 g/l (18 days)

- Base oil - unspecified - residual oils (petroleum), solvent-dewaxed

No data available

- Sodium hydrogen carbonate

LC50 (fish) 7550mg/l/96hr

EC50: (aquatic invertebrates) 2350mg/l/48hr

### **12.2 Persistence and degradability**

- Potassium chlorate Biodegradable
- Base oil - unspecified - residual oils (petroleum), solvent-dewaxed Biodegradable
- Ammonium chloride No data
- Sodium hydrogen carbonate No data

### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

### **12.4 Mobility in soil**

- No information available

### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

### **12.6 Other adverse effects**

- No information available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 6 Acute Toxicity; HP 14 Ecotoxic

## **SECTION 14. TRANSPORT INFORMATION**

Not classified as hazardous for transport

### **14.1 UN number**

- UN No.: Not applicable

### **14.2 UN proper shipping name**

- Proper Shipping Name: Not applicable

### **14.3 Transport hazard class(es)**

- Hazard Class: Not applicable

### **14.4 Packing group**

- Packing Group: Not applicable

### **14.5 Environmental hazards**

- Not Classified

### **14.6 Special precautions for user**

- Not Classified

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

### **14.9 Sea (IMDG)**

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable - IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable - ICAO Hazard Class: Not applicable –
- ICAO Packing Group: Not applicable

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## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.
- The COSHH Regulations apply in the UK.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 5.1. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

- ;;

Acute Tox. 4, H302: Classification based on calculation and concentration thresholds

Eye Irr. 2A, H319: Classification based on calculation and concentration thresholds

Aquatic Chronic 2, H411: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser
- H302: Harmful if swallowed
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H411: Toxic to aquatic life with long lasting effects

### Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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## Safety Data Sheet

### Encapsulated Red Smoke Pellet

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Product Identifier

- 10.5. Product name: Encapsulated Red Smoke Pellet  
Contains Potassium chlorate, Ammonium chloride and 1-(Methylamino)anthraquinone  
UFI: T330-30J5-C00F-725F
- 10.6. Relevant identified uses of the substance or mixture and uses advised against A smoke generation pellet for the marking of airflows, for theatrical or special effects

##### 10.7. Details of the supplier of the safety data sheet

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK  
Phone +44 (0) 117 955 5304  
Fax +44 (0) 117 955 7875  
Website [www.octaviushunt.co.uk](http://www.octaviushunt.co.uk)  
Email [info@octavius-hunt.co.uk](mailto:info@octavius-hunt.co.uk)

10.8. Emergency telephone number + 44 (0) 7720 051020 (24h)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

- Classification (Regulation (EC) No 1272/2008) [CLP/GHS]: Acute Tox. 4,H302; Skin irrit. 2. H315; Eye Irr. 2A. H319; Aquatic Chronic 2, H411
- Additional Information: For full text of Hazard and EU Hazard-statements: see section 16

##### 2.2 Label elements



Signal word: Warning

## SECTION 2: HAZARDS IDENTIFICATION (....)

### Hazard statements

H302	Harmful if swallowed
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects

### Precautionary statements

P264	Wash skin thoroughly after handling
P280	Wear eye protection protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338	If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337+P313	If eye irritation persists: get medical advice / attention
P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.

### Supplemental Hazard Information (EU)

- None

### 2.3 Other hazards

- Ignites readily. Product burns without a flame to give a dense white harmful smoke.
- Combustion products include ammonium chloride
- This product contains <1% respirable silica
- Not a PBT according to Reach Annex XIII
- Not a vPvB according to Reach Annex XIII

---

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: N.A.

### 3.2. Mixture

Contains the following hazardous ingredients or ingredients with a workplace exposure limit

Chemical Name	Conc.	CAS No.	EC No.	Classification according to Regulation (EC) No 1278/2008 (CLP).	REACH Registration Number	WEL/OEL
Base oil - unspecified - residual oils (petroleum), solvent-dewaxed	5 - 10% w/w	64742-62-7	265-166-0	Not classified	01-2119480472-38-XXXX	No
Ammonium chloride	15 - 25% w/w	12125-02-9	235-186-4	Acute Tox. H302 Eye Irrit. H319	01-2119487950-27-xxxx	Yes
Potassium chlorate	20 - 30% w/w	3811-04-9	223-289-7	Ox. Liq. H271; Acute Tox. H302; Acute Tox 4 H332; Aquatic Chronic 2, H411	01-2119494917-18-xxxx	No
Sodium hydrogen carbonate	3 -5% w/w	144-55-8	205-633-8	Not classified	-	No
1-(Methylamino)anthraquinone	10-20% w/w	82-38-2	-	Skin irrit. 2. H315 Eye Irr. 2A. H319 STOT. 3. H335	-	No

Information to exposure limit values - see section 8.

## SECTION 4: FIRST AID MEASURES

Rescuers should take suitable precautions to avoid becoming casualties themselves

### 4.6 Description of First Aid Measures General Advice:

Show this safety data sheet to the doctor in attendance

#### **Contact with eyes:**

If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Contact with skin:**

Take off contaminated clothing and wash it before reuse.

Wash affected area with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

#### **Inhalation:**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If unconscious, place person in recovery position

Apply artificial respiration only if patient is not breathing but **do not** use mouth to mouth resuscitation. Get immediate medical advice/attention.

#### **Ingestion:**

Rinse mouth with water (do not swallow).

Give 200-300mls (half pint) water to drink.

Do NOT induce vomiting. Get medical advice/attention.

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

Contact with eyes

- May cause serious eye irritation. Causes redness and swelling.

Contact with skin

- May cause redness and irritation.

Ingestion

- Can form methaemoglobin in the blood, causing cyanosis.
- May cause burns to mouth and throat.
- May cause stomach pain.
- May cause nausea/vomiting.
- There may be bleeding from the mouth or nose.

Inhalation

- May cause shortness of breath.
- May cause coughing and tightness of chest.
- Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness

### 4.3. Immediate Medical Attention

Risk of methemoglobinemia. Not to be treated with methylthionine. - Treat symptomatically.



## **SECTION 5: FIRE FIGHTING MEASURES**

### **5.1. Extinguishing media:**

Suitable extinguishing media: Sand/earth; foam; water spray; carbon dioxide.

- Unsuitable extinguishing media:

Do not use water jets;

Dry agent extinguishers are unsuitable and should not be used.

### **5.2. Special Hazards arising from the mixture:**

- Ignites readily.

- Contains an oxidising agent; may assist combustion.

- May form explosive dust/air mixtures.

- Gives off irritating or toxic fumes (or gases) in a fire.

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

### **5.3. Advice for fire-fighters:**

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.

- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures:**

- No action shall be taken involving any personal risk or without suitable training.

- Only trained and authorised personnel should carry out emergency response.

- Avoid formation of dust.

- Shut off all ignition sources

- Personal precautions for non-emergency personnel: Avoid breathing dust/fume; Avoid contact with skin and eyes;

Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.

- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

### **6.2. Environmental precautions:**

- Avoid release to the environment.

- Do not allow to enter public sewers and watercourses.

- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

### **6.3. Methods and material for containment and cleaning up:**

- Do not absorb spillage in sawdust or other combustible material.

- Avoid formation of dust.

- Shut off all ignition sources.

- Take action to prevent static discharges.

- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.

Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.

Damp down to avoid dust generation.

Absorb spillage in earth or sand.

Sweep or shovel-up spillage and remove to a safe place.

Place in appropriate container.

Seal containers and label them.

Remove contaminated material to safe location for subsequent disposal.

Ventilate the area and wash spill site after material pick-up is complete.

### **6.4. Reference to other sections:**

- See section(s): 7, 8 & 13

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Ensure adequate ventilation.
- In case of inadequate ventilation wear respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition. - Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse.
- Eyewash bottles should be available.

### **7.2. Conditions for storage, including any incompatibilities**

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep out of reach of children.

### **7.3. Specific end use**

A smoke generation pellet for the marking of airflows, for theatrical or special effects.

## **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **8.1. Control parameters**

- For currently recommended monitoring procedures, see HSE series 'Methods for the Determination of Hazardous Substances' (MDHS).
- Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

#### **- Potassium chlorate**

DNEL (inhalational) 5.76 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects  
DNEL (dermal) 3.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects  
DNEL (inhalational) 300 ug/m<sup>3</sup> Consumer, Long Term, Systemic Effects  
DNEL (dermal) 130 ug/kg (bw/day) Consumer, Long Term, Systemic Effects  
DNEL (oral) 60 ug/kg (bw/day) Consumer, Long Term, Systemic Effects  
PNEC aqua (freshwater) 1.15 mg/l  
PNEC aqua (marine water) 1.15 mg/l  
PNEC (STP) 115 mg/l  
PNEC terrestrial (soil) 3.83 mg/kg

- Base oil - unspecified - residual oils (petroleum), solvent-dewaxed  
No data available

- Sodium hydrogen carbonate  
No data available

- 1-(Methylamino)anthraquinone  
No data available

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (....)

- Ammonium chloride

WEL (long term) 10 mg/m<sup>3</sup> (fume or respirable dust, UK)

WEL (short term) 20 mg/m<sup>3</sup> (fume or respirable dust, UK)

DNEL (inhalational) 33.5 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects

DNEL (dermal) 128.9 mg/kg (bw/day) Industry, Long Term, Systemic Effects

DNEL (inhalational) 9.4 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects

DNEL (dermal) 55.2 mg/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 11.4 mg/kg (bw/day) Consumer, Long Term, Systemic Effects

DNEL (oral) 55.2 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects

PNEC aqua (freshwater) 250 - 1 200 ug/l

PNEC aqua (intermittent releases, freshwater) 430 - 1 200 ug/l

PNEC aqua (marine water) 25 - 11 200 ug/l

PNEC (STP) 16.2 mg/l

PNEC terrestrial (soil) 163 - 50 700 ug/kg

### 8.2. Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

- Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.

Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

- Skin protection

Wear suitable protective clothing.

Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

- Eye/face protection

Wear goggles giving complete eye protection approved to standard EN 166.

- Hygiene measures

Contaminated clothing should be laundered before reuse.

Do not eat, drink or smoke when using this product.

Eyewash bottles should be available.

- Environmental exposure controls

Avoid release to the environment.

Do not empty into drains

Compressed product unlikely to be released unless damaged.



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Colour:</b>	Red
<b>Physical State:</b>	Encapsulated pellet
<b>Odour:</b>	Odourless.
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available
<b>Minimum Ignition temp.</b>	Not available.
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Contains an oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Not available.
<b>Density:</b>	Not available.

**9.2 Other Information:** Further safety relate physical-chemical data are not known.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- Reacts with combustible material.  
- Reacts with acids liberating toxic gas (chlorine).

### 10.4 Conditions to avoid

- Avoid formation of dust.  
- Keep away from heat and sources of ignition.  
- Keep away from static electricity.

### 10.5 Incompatible materials

- Incompatible with strong acids.  
- Incompatible with alkalis (strong bases).  
- Incompatible with halogenated substances.

### 10.6 Hazardous decomposition products

- Decomposition products may include oxygen, ammonium chloride, carbon oxides, nitrogen oxides, ammonia, hydrocyanic acid (HCN).

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

- Acute Toxicity

Harmful if swallowed.

<b>Chemical name</b>	<b>LD50 (oral, rat)</b>	<b>LC50 (inhalation, rat)</b>	<b>LD50 (dermal, rabbit)</b>
Base oil - unspecified - residual oils (petroleum), solvent-dewaxed	No data available	No data available	No data available
Sodium hydrogen carbonate	4220 mg/kg	No data available	No data available
Potassium chlorate	500 mg/kg	5 mg/l (4 hr)	NS
Ammonium chloride	1410 mg/kg	No data available	>2000 mg/kg (rat)
1-(Methylamino)anthraquinone	No data available	No data available	No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION (....)**

- Skin corrosion/irritation

Causes skin irritation.

Classification based on calculation and concentration thresholds.

- Serious eye damage/irritation

Causes serious eye irritation.

Classification based on calculation and concentration thresholds.

- Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data, the classification criteria are not met.

- Reproductive toxicity No evidence of reproductive effects

- Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

- Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

- Aspiration hazard

Based on available data, the classification criteria are not met.

- Contact with eyes

May cause serious irritation. Causes redness and swelling.

- Contact with skin

May cause redness and irritation.

- Ingestion Can form methaemoglobin in the blood, causing cyanosis

May cause burns to mouth and throat.

May cause stomach pain.

May cause nausea/vomiting.

There may be bleeding from the mouth or nose.

- Inhalation Causes shortness of breath.

May cause coughing and tightness of chest.

Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

- Toxic to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds.

#### - Potassium chlorate

LC50 (fish) 1 g/l (4 days)

EL50 (aquatic invertebrates) 1 g/l (48 hr)

EL50 (aquatic algae) 1.9 - 500 mg/l (72 hr)

#### - Ammonium chloride

LC50 (fish) 42.91 - 209 mg/l (4 days)

EC50 (aquatic invertebrates) 101 - 136.6 mg/l (48 hr)

EC50 (aquatic algae) 2.7 g/l (18 days)

#### - Base oil - unspecified - residual oils (petroleum), solvent-dewaxed

No data available

#### - Sodium hydrogen carbonate

LC50 (fish) 7550mg/l/96hr

EC50: (aquatic invertebrates) 2350mg/l/48hr

#### - 1-(Methylamino)anthraquinone

No data available

### **12.2 Persistence and degradability**

- Potassium chlorate Biodegradable
- Base oil - unspecified - residual oils (petroleum), solvent-dewaxed Biodegradable
- Ammonium chloride No data
- Sodium hydrogen carbonate No data
- 1-(Methylamino)anthraquinone No data available

### **12.3 Bio accumulative potential**

- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies

### **12.4 Mobility in soil**

- No information available

### **12.5 Results of PBT and vPvB assessment**

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

### **12.6 Other adverse effects**

- No information available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **13.1. WASTE TREATMENT METHODS**

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- This material and/or its container must be disposed of as hazardous waste.

### **13.2 Classification**

- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 4 Irritant; HP 6 Acute Toxicity; HP 14 Ecotoxic

## **SECTION 14. TRANSPORT INFORMATION**

**\*Red Encapsulated pellets and packaging are subject to special provisions (ADR 375 / ICAO A197) and therefore neither Limited Quantity markings or any other markings are required)**

### **14.1 UN number**

- UN No.: 3077

### **14.2 UN proper shipping name**

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

### **14.3 Transport hazard class(es)**

- Hazard Class: 9

### **14.4 Packing group**

- Packing Group: III

### **14.5 Environmental hazards**

- Yes

### **14.6 Special precautions for user**

- Refer to sections 4 -8

### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

- Not applicable

### **14.8 Road/Rail (ADR/RID)**

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
- ADR UN No.: 3077
- ADR Hazard Class: 9
- ADR Packing Group: III

### **14.9 Sea (IMDG)**

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
- IMDG UN No.: 3077
- IMDG Hazard Class: 9
- IMDG Pack Group.: III

### **14.10 Air (ICAO/IATA)**

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
- ICAO UN No.: 3077
- ICAO Hazard Class: 9
- ICAO Packing Group: III

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## **SECTION 15. REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.
- The COSHH Regulations apply in the UK.

### **15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 3.1. Revised March 2020.

Changes made: Revised to add in H332 to potassium chlorate in table 3.2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4, H302: Classification based on calculation and concentration thresholds

Skin irrit. 2. H315: Classification based on calculation and concentration thresholds

Eye Irr. 2A. H319: Classification based on calculation and concentration thresholds

Aquatic Chronic 2, H411: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H271: May cause fire or explosion; strong oxidiser

- H332: Harmful if inhaled

- H335: May cause respiratory irritation

### Acronyms

- CAS: Chemical Abstracts Service

- DNEL: Derived No-Effect Level

- EC: European Community

- EC50: Effective Concentration, 50%

- GHS: Globally Harmonised System

- IARC: International Agency for Research on Cancer

- IC50: Half-maximal inhibitory concentration

- LC50: Lethal Concentration, 50%

- LD50: Lethal Dose, 50%

- NOAEC: No observed adverse effect concentration

- NOAEL: No observed adverse effect level

- NOEC: No observed effect concentration

- OEL: Occupational Exposure Limit

- PBT: Persistent, Bioaccumulative and Toxic

- PNEC: Predicted No-Effect Concentration

- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

- vPvB: very Persistent and very Bioaccumulative

- WEL: Workplace Exposure Limit

Previous revisions should be destroyed.

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