# SAFETY DATA SHEET

In accordance with 453/2010 and 1272/2008

(All references to EU regulations and directives are abbreviated into only the numeric term)

Date of compilation 2012-05-24

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier**

**Trade name** **COLOUR SMOKE-AX 3 and 9**

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

**Identified uses** Smoke for leakage tests and air flow studies

**Uses that are advised against**

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

| | |
|---|---|
| Company | BJÖRNAX AB<br>STRÅSSA FÖRETAGSBY<br>SE-71177 STRÅSSA |
| Telephone | +46 581 43150 |
| E-Mail | info@bjornax.se |

**1.4. Emergency telephone number**

In case of emergency contact toxicological information, emergency tel 112 (within Europe) or 911 (for USA and Canada). For other countries, use the built-in emergency number in your cell phone

For non-emergency poison information, see http://www.who.int/ipcs/poisons/centre/directory/euro/en/

## SECTION 2: HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture**

**Classification in accordance with 1272/2008**

**Irritates eyes (Category 2)**

**Toxic to aquatic life with long lasting effects (Category Cron 2)**

**Classification in accordance with 1999/45/EG**

Harmful by inhalation and if swallowed. Irritating to eyes. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Label information in accordance with 1272/2008**

Hazard pictograms

| | |
|---|---|
| Signal words | Warning |
| Hazard statements | |
| H319 | Causes serious eye irritation |
| H411 | Toxic to aquatic life with long lasting effects |
| Precautionary statements | |
| P210 | Keep away from heat, sparks, open flames, or hot surfaces . - No smoking |
| P273 | Avoid release to the environment |
| P280 | Wear eye protection |

**Label information in accordance with 1999/45/EG**

C.f. section 16.

### 2.3. Other hazards

The product produces smoke which can cause irritation upon contact with the eyes or inhalation under conditions of long periods of exposure or incorrect use. In case of uncertainty about how the product should be used, please contact the manufacturer or the company from which the product was originally purchased.

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is composed of a mixture of several solid substances.

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in an absolutely pure form. These hazards are reduced or eliminated when mixed or diluted, c.f. Section 16d.

| Constituent | | Classification | Concentration |
|---|---|---|---|
| **POTASSIUM CHLORATE** | | | |
| CAS No | 3811-04-9 | Ox Sol 1, Acute Tox 4*dust*, Acute Tox 4*oral*, Aquatic Chronic 2; H271, H332, H302, H411 | 33% |
| EC No | 223-289-7 | | |
| Index No | 017-004-00-3 | Xn O N; R9 R20/22 R51/53 | |
| **AMMONIUM CHLORIDE** | | | |
| CAS No | 12125-02-9 | *No phys haz*, Acute Tox 4*oral*, Eye Irrit 2; H302, H319 | 20% |
| EC No | 235-186-4 | Xn; R22 R36 | |
| Index No | 017-014-00-8 | | |

Occurrence of any impurity, stabilising additive, or individual ingredients other than the main ingredient is indicated by the chemical name and the purity level.

This product also contains substances that do not require labelling

# SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Generally

No special measures are considered to be necessary: if symptoms do occur however, call a doctor/physician.

#### Upon breathing in

Inhalation of chemicals from the product in normal use is not appropriate. For generated smoke: In the case of overexposure to generated smoke, move the affected person to fresh air. If symptoms persist, consult a doctor.

#### Upon contact with the eyes

Eye contact with chemicals from the product in normal use is not appropriate. For generated smoke: If symptoms occur, Flush with lukewarm water with the eye or eyes wide open. If symptoms persist, consult a doctor. In the case of a broken or tampered product, the procedure for the constituent chemicals is as follows: Flush immediately with lukewarm water for 15 - 20 min with the eye or eyes wide open. If symptoms persist, consult a doctor.

#### Upon skin contact

Skin contact with chemicals from the product in normal use is not appropriate. In case of broken or tampered products the procedure for the constituent chemicals is as follows: Wash the skin with soap and water.

#### Upon ingestion

First rinse the mouth thoroughly with a lot of water and SPIT OUT the water. Then drink at least 1/2 liter of water and call a doctor/physician. Do NOT induce vomiting.

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

Information on symptoms are ambiguous or missing for this product.

# SECTION 5: FIRE-FIGHTING MEASURES

### 5.0 General measures in case of fire or imminent fire

This product can make a fire worse and should therefore be removed from the fire or imminent fire.

### 5.1. Extinguishing media

#### Recommended extinguishing agents

Extinguish with water.

#### Unsuitable extinguishing agents

Must not be extinguished with foam, powder of carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

**Dangerous combustion gases**

In case of fire, substances hazardous to health, or substances harmful in other respects, may be dispersed.

**Particular risks upon fire extinguishing**

### 5.3. Advice for fire-fighters

In case of fire use a respirator mask.

### 5.4. Other information

**Fire properties of the product**

Combustible solid.

**Particular risks in case of fire**

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Avoid discharge into sewers.

### 6.2. Environmental precautions

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

Collect.

Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

### 6.4. Reference to other sections

For choice of gloves, c.f. Section 8.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**7.1.1.a Recommendations specified to allow safe handling of the substance or mixture**

**7.1.2. Advice on general occupational hygiene**

This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.

When using, place the product on an incombustible base and check that the product has gone out completely before it is discarded.

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

**7.2.d1 Ventilation requirements**

Handle in premises with modern ventilation standards, store in a dry place.

**7.2.d2 Specific designs for storage rooms or vessels**

Must not be stored in the vicinity of combustible material.

**7.2.d4 Packaging compatibilities**

Keep away from moisture.

Store only in the original package.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**8.1.1. National limit values, United Kingdom**

All ingredients (cf. Section 3) lack occupational exposure limit values.

### 8.2. Exposure controls

**8.2.1. Appropriate engineering controls**

In terms of minimizing risks, attention must be paid to the health hazards (c.f. Sections 2, 3 and 10) of this product or any of its ingredients according to EU directives 89/391 and 98/24 and national occupational legislation.

**8.2.2. Individual protection measures, such as personal protective equipment**

**8.2.2.a Eye/face protection.**

Eye protection should be worn if there is any danger of direct exposure or splashing.

**8.2.2.b1 Hand protection.**

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

**8.2.2.b2 Other skin protection.**

Tvätta utsatt hud med tvål och vatten.

**8.2.2.c Respiratory protection.**

Dust filter IIb (P2) may be required.

### 8.2.3. Environmental exposure controls

Not indicated

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on basic physical and chemical properties**

| | | |
|---|---|---|
| a) | Appearance | Form: solid article<br>Colour: white |
| b) | Odour | No smell or uncharacteristic smell |
| d) | pH | Not applicable |
| g) | Flash point | Not applicable |
| j) | (Upper/lower flammability or explosive limits | Ignition temperature > 200 °C |
| s) | Explosive properties | Not applicable |

# SECTION 10: STABILITY AND REACTIVITY

**Stability**

The product as such is stable; Note its reactivity with other substances however.

# SECTION 11: TOXICOLOGICAL INFORMATION

**11.1.2.1a Acute toxicity**

Legend to abbreviations in the table: $w_i$ = Maximal mass fraction of the substance in the mixture; $ATE_{exp}$ = Experimentally obtained acute toxicity range estimate; $ATE_{pe}$ = Converted acute toxicity point estimate; $ATE_{mixt} = 1/SUM(w_i/ATE_i)$; $ATE_i$ = ATE for this ingredient.

Exposure route and unit: Oral (mg/kg bodyweight).

| Ingredient | $w_i$ | $ATE_{exp}$ | $ATE_{pe}$ | $ATE_i/w_i$ |
|---|---|---|---|---|
| POTASSIUM CHLORATE | 0.33 | 1870 | - | 5667 |
| AMMONIUM CHLORIDE | 0.2 | 1650 | - | 8250 |
| | | | $ATE_{mixt}$ | 3359 |

Exposure route and unit: Dermal (mg/kg bodyweight).

| Ingredient | $w_i$ | $ATE_{exp}$ | $ATE_{pe}$ | $ATE_i/w_i$ |
|---|---|---|---|---|
| POTASSIUM CHLORATE | 0.33 | >2000 | - | >6061 |
| AMMONIUM CHLORIDE | 0.2 | | Not indicated | |
| | | | $ATE_{mixt}$ | >6061 |

Exposure route and unit: Gases (ppmV).

Not applicable.

Exposure route and unit: Vapours (mg/l).

Not applicable.

Exposure route and unit: Dust/mist (mg/l).

| Ingredient | $w_i$ | $ATE_{exp}$ | $ATE_{pe}$ | $ATE_i/w_i$ |
|---|---|---|---|---|
| POTASSIUM CHLORATE | 0.33 | - | 2 | 5 |
| AMMONIUM CHLORIDE | 0.2 | | Not indicated | |
| | | | $ATE_{mixt}$ | 5 |

**11.1.2.1b Irritation**

The irritating properties of this mixture (c.f. Section 2) have been judged in accordance with the rules in 1272/2008 Annex I 3.2.3 and 3.3.3.

**11.1.2.1c Corrosivity**

The corrosive properties of this mixture (c.f. Section 2) have been judged in accordance with the rules in 1272/2008 Annex I 3.2.3 and 3.3.3.

**11.1.2.1d Sensitisation**

The sensitisation properties of this mixture (c.f. Section 2) have been judged in accordance with the rules in 1272/2008 Annex I 3.4.3, whereby possible impurities in the ingredients have been taken into account.

**11.1.2.1e Repeated dose toxicity**

The specific target organ toxicity - repeated exposure of this mixture (c.f. Section 2) has been judged in accordance with the rules in 1272/2008 Annex I 3.9.3, whereby possible impurities in the ingredients have been taken into account.

**11.1.2.1f Carcinogenicity**

The carcinogenic properties of this mixture (c.f. Section 2) have been judged in accordance with the rules in 1272/2008 Annex I 3.6.3.

**11.1.2.1g Mutagenicity**

The mutagenic properties of this mixture (c.f. Section 2) have been judged in accordance with the rules in 1272/2008 Annex I 3.5.3.

**11.1.2.1h Toxicity for reproduction**

The reproductive toxicity of this mixture (c.f. Section 2) has been judged in accordance with the rules in 1272/2008 Annex I 3.7.3.

**11.1.7. Information on likely routes of exposure**

Exposure must be assessed in accordance with the downstream user's chemical safety assessment according to 1907/2006 Article 37.

# SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

**General information**

For environmental impact, see also Section 2.

**Global affection herbs**

Contains substance that is toxic to herbs. Prevent discharge to soil, water and air.

**Mobility**

**Other harmful effects**

**Effect on the local environment**

Not indicated

# SECTION 13: DISPOSAL CONSIDERATIONS

**Waste handling for the product**

**General guidelines for waste handling**

The product after use is not classed as hazardous waste. Unused or broken products are classed as hazardous waste. Cf. also national waste regulations.

**Classification according to 2006/12**

Type of waste (LoW Code): 16 03 03 Inorganic wastes containing dangerous substances.

**Recycling of the product**

Not indicated

**Transportation of waste**

Not indicated

# SECTION 14: TRANSPORT INFORMATION

This product is only supposed to be transported by road or railway and just the transport regulations ADR/RID thus apply. If other means of transport are to be used, contact the publisher of this safety data sheet.

**Not classified as dangerous goods**

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable

**14.8 Other transport information**

Transport category: ; .

# SECTION 15: REGULATORY INFORMATION

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

Not applicable.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

# SECTION 16: OTHER INFORMATION

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

**Revisions of this document**

This is the first version.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

**Full texts for Hazard Class and Category Code mentioned in section 3**

| | |
|---|---|
| Ox Sol 1 | Oxidising solids (Verified Category 1) |
| Acute Tox 4*dust* | Acute toxicity (Category 4 dust) |
| Acute Tox 4*oral* | Acute toxicity (Category 4 oral) |
| Aquatic Chronic 2 | Toxic to aquatic life with long lasting effects (Category Cron 2) |
| *No phys haz* | Non-assigned physical hazard |
| Eye Irrit 2 | Irritates eyes (Category 2) |

**Comprehensive definition of the hazards mentioned in Section 2**

**Eye Irrit 2**

If, when applied to the eye of an animal, a substance produces at least in 2 of 3 tested animals, a positive response of:
- corneal opacity >= 1 and/or
- iritis >= 1, and/or
- conjunctival redness >= 2 and/or
- conjunctival oedema (chemosis) >= 2

calculated as the mean scores following grading at 24, 48 and 72 hours after installation of the test material, and which fully reverses within an observation period of 21 days

**Aquatic Chronic 2**

Chronic (long-term) aquatic hazard:
96 hr LC50 (for fish) 1-10 mg/l and/or
48 hr EC50 (for crustacea) 1-10 mg/l and/or
72 or 96 hr ErC50 (for algae or other aquatic plants) 1-10 mg/l and the substance is not rapidly biodegradable and/or the experimentally determined BCF >= 500 (or, if absent, the log Kow >= 4), unless the chronic toxicity NOECs are > 1 mg/l

**Explanations of the abbreviations in Section 14**

ADR European Agreement concerning the International Transport of Dangerous Goods by Road
RID Regulations concerning the International Transport of Dangerous Goods by Rail
Transport category: ; .

### 16c. Key literature references and sources for data

**Sources for data**

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2012-06-01.
Where such data was lacking, on the second hand the documentation on which this official classification is based was used, e.g. IUCLID (International Uniform Chemical Information Database). On the third hand, information was used from reputable international chemical suppliers, and on the fourth hand from other available information, e.g. safety data sheets from other suppliers or information from non-profit associations, whereby the reliability of the source was judged by an expert. If, in spite of this, reliable information was not found, the hazards were judged by expert opinions based on the known properties of similar substances, and according to the principles in 1907/2006 and 1272/2008.

**Full texts for Regulations mentioned in this Safety Data Sheet**

| | |
|---|---|
| 453/2010 | COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) |
| 1272/2008 | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 |
| 1999/45/EG | DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States |

relating to the classification, packaging and labelling of dangerous preparations

89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

98/24 COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Article 37 COMMISSION REGULATION (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII

2006/12 DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006 on waste

### 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

The calculation of the hazards of this mixture has been performed as an evaluation by applying a weight of evidence determination using expert judgement in accordance with 1272/2008 Annex I, weighing all available information having a bearing on the determination of the hazards of the mixture, and in accordance with 1907/2006 Annex XI.

### 16e. List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

#### Full text for risk phrases mentioned in section 3

R9 Explosive when mixed with combustible material

R20/22 Harmful by inhalation and if swallowed

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R22 Harmful if swallowed

R36 Irritating to eyes

#### Full texts for hazard statements mentioned in section 3

H271 May cause fire or explosion; strong oxidizer

H332 Harmful if inhaled

H302 Harmful if swallowed

H411 Toxic to aquatic life with long lasting effects

H319 Causes serious eye irritation

### 16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

### Other relevant information

#### Label information in accordance with 1999/45/EG

Hazard symbol

Harmful

Dangerous for the environment

R-phrases

| | |
|---|---|
| R20/22 | Harmful by inhalation and if swallowed |
| R36 | Irritating to eyes |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |

S-phrases

| | |
|---|---|
| S22 | Do not breathe dust |
| S25 | Avoid contact with eyes |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice |
| S29 | Do not empty into drains |
| S37 | Wear suitable gloves |
| S46 | If swallowed, seek medical advice immediately and show this container or label |