

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 2012-06-01



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

1.1. Product identifier

Trade name

MINIAX, MINIAX KS, VENTILAX

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

STRÅSSA FÖRETAGSBY

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 12125-02-9	No phys haz, Acute Tox 4oral, Eye Irrit 2; H302, H319 Xn; R22 R36	40%
EC No 235-186-4		
Index No 017-014-00-8		
AMMONIUM CHLORIDE		
CAS No 3811-04-9	Ox Sol 1, Acute Tox 4dust, Acute Tox 4oral, Aquatic Chronic 2; H271, H332, H302, H411 Xn Q N: R9 R20/22 R51/53	33%
EC No 223-289-7		
Index No 017-004-00-3		

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
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	0.4	1650	-	4125
AMMONIUM CHLORIDE	0.33	1870	-	5667
			ATE_{mixt}	2387

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

Ingredient	w_i	ATE_{exp}	ATE_{pe}	ATE_i/w_i
POTASSIUM CHLORATE	0.4		Not indicated	
AMMONIUM CHLORIDE	0.33	>2000	-	>6061
			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	0.4		Not indicated	
AMMONIUM CHLORIDE	0.33	-	2	5
			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

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

- R22 Harmful if swallowed
- R36 Irritating to eyes
- 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

Full texts for hazard statements mentioned in section 3

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

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