

SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Issued 2019-09-11
Version number 1.0



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name MAUS Stixx - The Fire Sticker

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

Identified uses Fire extinguishing agents

1.3. Details of the supplier of the safety data sheet

Producer
Company Falkenheim Invest AB
Sockerbruksgatan 20
531 40 Lidköping
Sweden
Telephone 08-12 00 51 30
E-mail info@mausxtin.com

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Oxidising solids (Verified Category 2), H272
Acute toxicity (Category 4 oral), H302

2.2. Label elements

Hazard pictogram



| | |
|--------------------------|---|
| Signal word | Danger |
| Hazard statements | |
| H272 | May intensify fire; oxidiser |
| H302 | Harmful if swallowed |
| Precautionary statements | |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking |
| P220 | Keep away from clothing and other combustible materials |
| P264 | Wash hands thoroughly after handling |
| P280 | Wear protective gloves |
| P501 | Dispose of contents and container to authorised waste disposal facility |

Supplemental hazard information

Contains: POTASSIUM PERCHLORATE

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

| Constituent | Classification | Concentration |
|--|--|---------------|
| POTASSIUM NITRATE | | |
| CAS No: 7757-79-1 EC No: 231-818-8 REACH: 01-2119488224-35 | Ox Sol 3; H272 | 15 - 30 % |
| POTASSIUM PERCHLORATE | | |
| CAS No: 7778-74-7 EC No: 231-912-9 Index No: 017-008-00-5 | Ox Sol 1, Acute Tox 4oral; H271, H302 | 15 - 30 % |
| CELLULOSE NITRATE | | |
| CAS No: 9004-70-0 EC No: 618-392-2 Index No: 603-037-00-6 | Expl 1.1; H201 | 15 - 30 % |
| DIIRON TRIOXIDE | | |
| CAS No: 1309-37-1 EC No: 215-168-2 | Skin Irrit 2, Eye Irrit 2, STOT SE 3resp; H315, H319, H335 | 0.5 - 3 % |

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms occur, call a doctor/physician.

Never attempt to administer liquid, or anything else, to an unconscious person via the mouth.

Upon breathing in

In case of inhaling large amounts of smoke, fog or dust, flush nose, mouth and throat with water. If symptoms occur seek medical advice.

Upon eye contact

For safety reasons, flush eyes with water; If symptoms occur, seek medical advice.

Upon skin contact

Remove contaminated clothes.

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

Wash/clean clothes with large amounts of water, to reduce fire hazard.

Upon ingestion

Rinse mouth out thoroughly first with water, then SPIT OUT the rinse water. Drink at least half a litre of water and seek medical advice. DO NOT INDUCE VOMITING.

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

Generally

Absorption in the body leads to formation of methaemoglobin, which in an adequate concentration causes cyanosis.

Symptom debut may be delayed 2 to 4 hours or longer.

Upon ingestion

Ingestion may lead to increased levels of methemoglobin in the blood due to oxidation of heme iron to the ferric state (Fe³⁺), resulting in methemoglobinemia and impaired tissue oxygenation.

Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

When contacting a physician, take this SDS with you.

Symptoms of poisoning may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

5.2. Special hazards arising from the substance or mixture

Nitrogen oxides may form in case of fire.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

May intensify fire; oxidiser.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use a respirator mask.

Wear full protective clothing.

Cool closed containers that were exposed to fire with water.

Any extinguishing should be executed from a good distance due to the risk of violent reaction or explosion.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not inhale the product and avoid exposure to skin, eyes and clothing.

Use recommended safety equipment, see section 8.

Note the risk of ignition.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

Upon larger spills, wear suitable protective gloves and eye protection, as well as fire resistant clothing.

Keep unauthorized and unprotected people at a safe distance.

Ensure good ventilation.

Evacuate the accident area and call an ambulance, if relevant.

Use masks with fresh air when oxygen content is low or unknown.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Collect spillage in sealable containers and send for disposal. Clean up residue with an appropriate solvent and ventilate the facility with fresh air.

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

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.

Do not inhale the product and avoid exposure to skin, eyes and clothing.

Use recommended safety equipment, see section 8.

Do not eat, drink or smoke in premises where this product is handled.

Store this product separately from food items and keep it out of the reach of children and pets.

Must be handled with care to avoid puncture or damage to the product.

Wash your hands after using the product.

Remove contaminated clothing.

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Keep out of reach for children.

Store separately from food and animal fodder, incl. utensils or surfaces which have been in contact with these things.

Always use sealed and visibly labeled packages.
Store tightly, in original packaging.
Store in dry and cool area.
Store in a well-ventilated space.
Do not store close to incompatible materials (see section 10.5).

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

Iron oxide, fume (as Fe)

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 5 mg/m³

Short term exposure limit (STEL) 10 mg/m³

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Follow the instructions. No special measures need to be taken in the event of normal handling or use.

8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Eye/face protection

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

Skin protection

Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

Respiratory protection

Use proper protective breathing equipment in case of insufficient ventilation.

8.2.3. Environmental exposure controls

Work with the product should take place in such a way that the product does not get into drains, waterways, soil and air.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| a) Appearance | Not indicated |
| b) Odour | Not indicated |
| c) Odour threshold | Not indicated |
| d) pH | When supplied, pH is: Not indicated In working solution the pH value is: 7.5 |
| e) Melting point/freezing point | Not indicated |
| f) Initial boiling point and boiling range | Not indicated |
| g) Flash point | Not indicated |
| h) Evaporation rate | Not indicated |
| i) Flammability (solid, gas) | Not applicable |
| j) Upper/lower flammability or explosive limits | Not indicated |
| k) Vapour pressure | Not indicated |
| l) Vapour density | Not indicated |
| m) Relative density | 1.66 |
| n) Solubility | Not indicated |
| o) Partition coefficient: n-octanol/water | Not applicable |
| p) Auto-ignition temperature | >500 °C |
| q) Decomposition temperature | Not indicated |
| r) Viscosity | Not indicated |
| s) Explosive properties | May cause dust explosion |
| t) Oxidising properties | Not applicable |

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

May intensify fire. Oxidising.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

May form explosive product upon contact with hypochlorite.

10.4. Conditions to avoid

Avoid ignition sources.

Protect from heat and direct sunlight.

10.5. Incompatible materials

Avoid contact with reducing agents.

Avoid contact with water.

Avoid calcium hypochlorite and sodium hypochlorite.

Avoid contact with organic solvents.

Avoid contact with combustible or flammable materials.

Avoid mixing with organic material.

10.6. Hazardous decomposition products

When thermal decomposition occurs, the following substances are formed:

Nitrous gases (NO_x).

Carbon monoxide (CO).

Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Ingestion may lead to increased levels of methemoglobin in the blood due to oxidation of heme iron to the ferric state (Fe³⁺), resulting in methemoglobinemia and impaired tissue oxygenation.

Acute toxicity

Harmful if swallowed.

POTASSIUM NITRATE

LD50 rat 24h: 3750 mg/kg Orally

DIIRON TRIOXIDE

LD50 rat 24h: > 10000 mg/kg Orally

Skin corrosion/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to skin. Mild irritation may occur on prolonged or repeated exposure.

Serious eye damage/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to the eyes. Mild irritation may occur on prolonged or repeated exposure.

Respiratory or skin sensitisation

The product does not contain any known allergens.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant .

STOT-single exposure

The criteria for classification cannot be considered fulfilled based on available data.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The product is not classified as being toxic for aspiration.

SECTION 12: Ecological information

12.1. Toxicity

The product is not to be labelled as an environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.
Prevent release on land, in water and drains.

12.2. Persistence and degradability

There is no information regarding persistence or degradability.

12.3. Bioaccumulative potential

There is no information regarding bioaccumulation.

12.4. Mobility in soil

Information about mobility in nature is not available.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

The components of the product have a fertilising effect.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Avoid discharge into sewers.

The product is oxidizing and any waste from it should therefore be considered dangerous, if it is not treated in order to eliminate this risk.

Observe local regulations.

See also national waste regulations.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

1477

14.2. UN proper shipping name

NITRATES, INORGANIC, N.O.S (POTASSIUM NITRATE, CELLULOSE NITRATE)

14.3. Transport hazard class(es)

Class

5.1: Oxidizing substances

Classification code (ADR/RID)

O2: Oxidizing substances without subsidiary risk or articles containing such substances: Solid

Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

Labels



14.4. Packing group

Packing group III

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: E

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: 3; Maximum total quantity per transport unit: 1000 kgs or litres

Stowage category not indicated (IMDG)

SECTION 15: Regulatory information

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

Not indicated.

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 3 | Oxidising solid substances (Category 3) |
| Ox Sol 1 | Oxidising solids (Verified Category 1) |
| Acute Tox <i>4oral</i> | Acute toxicity (Category 4 oral) |
| Expl 1.1 | Explosive; mass explosion hazard (Verified Category 1.1) |
| Skin Irrit 2 | Skin Irritant (Category 2) |
| Eye Irrit 2 | Irritates eyes (Category 2) |
| STOT SE <i>3resp</i> | Specific target organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp) |

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

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: E; Passage through category E tunnels is strictly forbidden

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

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 2019-09-11.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

- 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
- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 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
- EH40/2005 EH40/2005 Workplace exposure limits
- 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

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

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

**16e. List of relevant hazard statements and/or precautionary statements
Full texts for hazard statements mentioned in section 3**

- H272 May intensify fire; oxidiser
H271 May cause fire or explosion; strong oxidiser
H302 Harmful if swallowed
H201 Explosive; mass explosion hazard
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

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

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Not indicated

Editorial information



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