

SAFETY DATA SHEET

In accordance with 1907/2006 annex II and 1272/2008

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

Revision date 2022-06-29

Replaces SDS issued 2020-08-18

Version number 2.0



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

Phone number for emergencies: 999 or 112. The numbers are available 24/7.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Ox. Sol. 2, H272
Acute Tox. 4, H302
Carc. 2, H351
STOT RE 2, H373
(See section 16)

2.2. Label elements

Hazard pictogram



Signal word	Danger
Hazard statements	
H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H351	Suspected of causing cancer
H373	May cause damage to organs (urinary tract) through prolonged or repeated exposure
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
P260	Do not breathe dust or fume
P280	Wear protective gloves, protective clothing and eye or face protection
P308+P313	IF exposed or concerned: Get medical advice/attention
P501	Dispose of contents and container to authorised waste disposal facility

Supplemental hazard information

Contains: POTASSIUM PERCHLORATE, MELAMINE

2.3. Other hazards

Not indicated.

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 PERCHLORATE		
CAS No: 7778-74-7 EC No: 231-912-9 Index No: 017-008-00-5	Ox. Sol. 1, Acute Tox. 4; H271, H302	15 - 30 %
POTASSIUM NITRATE		
CAS No: 7757-79-1 EC No: 231-818-8 REACH: 01-2119488224-35	Ox. Sol. 3; H272	15 - 30 %
MELAMINE		
CAS No: 108-78-1 EC No: 203-615-4 Index No: 613-345-00-2	Carc. 2, STOT RE 2; H351, H373	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 3; 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

If exposed or concerned: Get medical advice/attention.

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

Upon breathing in

Move casualty to fresh air and rinse nose, mouth and throat with water.

Please contact the doctor.

Upon eye contact

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

Upon skin contact

Remove contaminated clothes.

Wash the skin with soap and water.

Contact a doctor.

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

Suspected to be able to cause cancer.

May cause damage to organs through prolonged or repeated exposure.

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.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

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

SECTION 5: Firefighting 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

May intensify fire; oxidiser.

Oxygen (O₂) is released during heating.

Gases detrimental to health can be spread in case of fire.

5.3. Advice for firefighters

In case of fire use proper breathing apparatus.

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

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

In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).

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

Use recommended safety equipment, see section 8.

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

Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.

Ensure good ventilation.

Keep unauthorized and unprotected people at a safe distance.

Chemical protection suits should be worn for all sanitizing work.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

Please contact involved authorities if unintended release occurs.

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.

Ensure good ventilation after sanitation.

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

Take the necessary preventive and protective measures for safe handling.
Do not eat, drink or smoke in premises where this product is handled.
Do not inhale the product and avoid exposure to skin, eyes and clothing.
Store this product separately from food items and keep it out of the reach of children and pets.
Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
Must be handled with care to avoid puncture or damage to the product.
Take off work clothes and protective gear before meals.
Wash your hands after using the product.
Remove contaminated clothing.
Wash contaminated clothing before reuse.
Keep away from incompatible products.
Use recommended safety equipment, see section 8.
Implement appropriate engineering controls if necessary, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Take the necessary preventive and protective measures for safe storage.
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.
Store separately from food and animal fodder, incl. utensils or surfaces which have been in contact with these things.
Keep out of reach for children.
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 use(s)

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

DIIRON TRIOXIDE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 5 mg/m³
Time-weighted-average exposure limit (TWA) 10 mg/m³ (Total inhalable)
Time-weighted-average exposure limit (TWA) 4 mg/m³
Short term exposure limit (STEL) 10 mg/m³

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.
Use protective glasses with tight seals according to standard EN166.

Skin protection

Use suitable protective clothing.

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

The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

During continuous contact use gloves with a minimum breakthrough time of at least 240 minutes, preferably over 480 minutes.

Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.

– Nitrile rubber.

Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.

Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:.

– P2/P3.

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) Physical state	solid Form: Solid of unspecified shape
(b) Colour	orange red
(c) Odour	Not indicated
(d) Melting point/freezing point	Not indicated
(e) Boiling point or initial boiling point and boiling range	Not indicated
(f) Flammability	Not indicated
(g) Lower and upper explosion limit	Not indicated
(h) Flash point	Not indicated
(i) Auto-ignition temperature	>500 °C
(j) Decomposition temperature	Not indicated
(k) pH	In working solution the pH value is: 7.5
(l) Kinematic viscosity	Not indicated
(m) Solubility	Not indicated
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	1.66 g/cm ³
(q) Relative vapour density	Not indicated
(r) Particle characteristics	Not indicated

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not indicated

9.2.2. Other safety characteristics

Not indicated

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 hazard classes as defined in Regulation (EC) No 1272/2008

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

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 product is not classified for skin corrosion/irritation.

Serious eye damage/irritation

The product is not classified as irritant to the eyes.

Respiratory or skin sensitisation

The product is not classified as sensitising.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

Is suspected to be carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant.

STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

The product is not classified as being toxic for aspiration.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

The product contains a substance which is under assessment for endocrine disruptive properties.

11.2.2. Other information

Not indicated.

SECTION 12: Ecological information

12.1. Toxicity

Prevent release on land, in water and drains.

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

POTASSIUM NITRATE

LC50 Guppy (*Poecilia reticulata*) 96h: 1378 mg/L

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

The mixture contains a substance that is under assessment as PBT.

12.6. Endocrine disrupting properties

The product contains a substance which is under assessment for endocrine disruptive properties.

12.7. 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.

Product as well as packaging must be disposed of as hazardous waste.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

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 or ID 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. Maritime transport in bulk according to IMO instruments

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

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

Earlier versions

2020-08-18 Changes in section(s) 2, 3, 4, 5, 6, 7, 8, 11, 12, 13.

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, Hazard Category 1 - Ox. Sol. 1, H271 - May cause fire or explosion; strong oxidiser
Acute Tox. 4	Acute toxicity (oral), Hazard Category 4 - Acute Tox. 4, H302 - Harmful if swallowed
Ox. Sol. 3	Oxidising Solids, Hazard Category 3 - Ox. Sol. 3, H272 - May intensify fire; oxidiser
Carc. 2	Carcinogenicity, Hazard Category 2 - Carc. 2, H351 - Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
STOT RE 2	Specific target organ toxicity — Repeated exposure, Hazard Category 2 - STOT RE 2, H373 - May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
Expl. 1.1	Explosives, Division 1.1 - Expl. 1.1, H201 - Explosive; mass explosion hazard
Skin Irrit. 2	Skin corrosion/irritation, Hazard Category 2 - Skin Irrit. 2, H315 - Causes skin irritation
Eye Irrit. 2	Serious eye damage/eye irritation, Hazard Category 2 - Eye Irrit. 2, H319 - Causes serious eye irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation - STOT SE 3, H335 - May cause respiratory irritation
Ox. Sol. 2	Oxidising Solids, Hazard Category 2 - Ox. Sol. 2, H272 - May intensify fire; oxidiser

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 (ADR 1.1.3.6)

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 2022-06-29.

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
- 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
- 2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

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

- H271 May cause fire or explosion; strong oxidiser
- H302 Harmful if swallowed
- H272 May intensify fire; oxidiser
- H351 Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
- H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
- 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



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se