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 2024-09-06
Replaces SDS issued 2023-06-14
Version number 4.0

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

1.1. Product identifier

Trade name	MAUS Xtin Grand
Article number	3001-1
UFI:	4E2C-06J0-E004-4FRX

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

Company	MAUS Sweden AB Sockerbruksgatan 20 531 40 Lidköping Sweden
Telephone	08-12 00 51 30
E-mail	info@maussafety.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
Skin Irrit. 2, H315
Skin. Sens. 1, H317
Eye Irrit. 2, H319
STOT SE 3, H335
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
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H373	May cause damage to organs (urinary tract) through prolonged or repeated exposure
Precautionary statements	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
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
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves, protective clothing and eye or face protection
P308+P313	IF exposed or concerned: Get medical advice/attention
P405	Store locked up
P501	Dispose of contents and container to authorised waste disposal facility

Supplemental hazard information

Contains: STRONTIUM NITRATE, MELAMINE, FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH PHENOL

2.3. Other hazards

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

The product does not contain any substances identified as having endocrine disruptive properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

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
STRONTIUM NITRATE		
CAS No: 10042-76-9 EC No: 233-131-9	Ox. Sol. 1, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H271, H315, H319, H335	30 - 50 %
POTASSIUM NITRATE		
CAS No: 7757-79-1 EC No: 231-818-8 REACH: 01-2119488224-35	Ox. Sol. 3; H272	30 - 50 %
MELAMINE		
CAS No: 108-78-1 EC No: 203-615-4 Index No: 613-345-00-2	Carc. 2, STOT RE 2; H351, H373	10 - 20 %
FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH PHENOL		
CAS No: 9003-35-4 EC No: 500-005-2	Skin. Sens. 1; H317	5 - 10 %

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

Bring the injured person out into fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult let trained personnel administer oxygen. Let the injured person rest in a warm place with fresh air and seek medical advice immediately.

Upon eye contact

Remove contact lenses immediately if possible.
Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

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.

Upon breathing in

May cause respiratory irritation.

Upon eye contact

Causes serious eye irritation.

Upon skin contact

May cause an allergic skin reaction.
Burn injuries may occur during contact with heated product.

Upon ingestion

May cause irritation of mucous membranes, nausea and vomiting.

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.
Actions under first aid and the stated symptoms are relevant for incorrect handling of the product causing exposure of the contents.

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

Oxidising agent. May intensify fire. The product itself is not flammable but can support fire, even in the absence of air. When heated, the product melts. At a higher temperature, decomposition takes place, whereby toxic gases such as nitrogen oxides are emitted. When heated in enclosed spaces, decomposition can lead to explosive processes.

5.3. Advice for firefighters

Protective measures to be taken with regard to other materials at the scene of the fire.
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.
Evacuate all not-authorized personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized and unprotected people at a safe distance.
Evacuate the accident area and call an ambulance, if relevant.
Avoid inhalation and exposure to skin and eyes.
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.
In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).
Use recommended safety equipment, see section 8.
Chemical protection suits should be worn for all salvage and decontamination 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

Do NOT use tools emitting sparks when cleaning.
To be collected with caution and transported to a waste disposal facility.
Residues after decontamination are disposed of as hazardous waste. Please contact the municipal sanitation department for more information. Show 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.
Avoid inhalation and contact with skin and eyes.
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.
Consider the risk of violent chemical reactions.
Must be handled with care to avoid puncture or damage to the product.
Do not use damaged or partially damaged products.
Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
Store this product separately from food items and keep it out of the reach of children and pets.
Do not eat, drink or smoke in premises where this product is handled.
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

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.
Take the necessary preventive and protective measures for safe storage.
Keep out of reach for children.
To be stored away from food and animal fodder and away from devices or surfaces that are in contact with those items.
Store tightly, in original packaging.
Always use sealed and visibly labeled packages.
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

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

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-rinsing facilities shall be available at the workplace.

Eye/face protection

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

8.2.3. Environmental exposure controls

For limiting environmental exposure, see section 12.

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	yellowish brown
(c) Odour	characteristic
(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	Solubility in water: Insoluble
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	1.66
(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

Reacts with metals.
Reacts with reducing agent.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.
Do not let a heated product come in contact with water or other liquids.

10.5. Incompatible materials

Avoid contact with metal powders (Al, Zn, Be, etc.) .
Peroxides.
Titanium.
Fluorine and fluorine compounds.
Cyanides.
Sulphides.
Phosphorus.
Water.
Bases, reducing substances, combustible and organic materials, metal oxides, salts of metals.
Reducing agents.
Antimony.

10.6. Hazardous decomposition products

No information is available.

SECTION 11: Toxicological information

The information in this section is only applicable in case of exposure to the product content.

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

The product is not classified as acutely toxic.

STRONTIUM NITRATE

LD50 rat 24h: 2750 mg/kg Orally

POTASSIUM NITRATE

LD50 rat 24h: 3750 mg/kg Orally

Skin corrosion/irritation

Irritant to skin.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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

Inhalation of mist may cause irritation of the nose and throat. Coughing and breathing difficulties may also occur.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.
Target organ(s):.
– urinary tract.

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 does not contain any substances identified as having endocrine disruptive properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

11.2.2. Other information

Not indicated.

SECTION 12: Ecological information

12.1. Toxicity

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.
Prevent release on land, in water and drains.

POTASSIUM NITRATE

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

12.2. Persistence and degradability

No information is available.

12.3. Bioaccumulative potential

No information is available.

12.4. Mobility in soil

No information is 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. Endocrine disrupting properties

The product does not contain any substances identified as having endocrine disruptive properties in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.

12.7. Other adverse effects

No known effects or hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Avoid discharge into sewers.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

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 (STRONTIUM NITRATE, POTASSIUM 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 subsidary risk according to IMDG

Labels

14.4. Packing group

Packing group II

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: 2; Highest total quantity per transported unit 333 kg or liters

Stowage category A (IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-A

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-Q

SECTION 15: Regulatory information

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

Not indicated.

Substances on the list of SVHC Candidate List for authorisation (substances that meet the criteria in Article 57 of the REACH Regulation):

MELAMINE

CAS No: 108-78-1
EC No: 203-615-4
Index No: 613-345-00-2

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
2023-06-14 Changes in section(s) 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15.

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
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. 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>
Skin. Sens. 1	Respiratory or skin sensitisation, Sensitisation — Skin, hazard category 1 - Skin. Sens. 1, H317 - May cause an allergic skin reaction
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: 2; Highest total quantity per transported unit 333 kg or liters

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 2024-09-06.
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
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation
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>
H317 May cause an allergic skin reaction

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