Safety Data Sheet

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Last Revision Date 10-Dec-2021 **Version:** 1

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

1.1. Product identifier

Product Name	**Ficote Total 17-9-10+2MgO+TE; 12-14M**
Product Code	**7619-225HA**
Synonyms:	Ficote Total 17-3.9-8.3+1.2Mg+TE
Pure substance/mixture	Mixture

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

Recommended Use	Fertilizer (PC12). Restricted to professional users.
Uses Advised Against	Consumer use (SU21)

Reason why uses advised against Use advised against in Chemical Safety Assessment per REACH Annex I point 7 2.3

1.3. Details of the supplier of the safety data sheet

Everris International B.V.Nijverheidsweg 1-5; 6422 PD Heerlen (NL); Tel: +31 (0)45-5609100; Fax: +31 (0)45-5609190

For further information, please contact: INFO-MSDS@EVERRIS.COM
Non-Emergency Telephone Number +31 (0) 418655700

1.4. Emergency telephone number

IN CASE OF AN EMERGENCY CALL: +44 1235 239 670 (24/7)

Europe	**112**
Austria	+43 1 406 43 43
Belgium	070 245 245
Denmark	+45 8212 1212
Finland	0800 147 111
France	+ 33 (0)1 45 42 59
Ireland	01 809 2566
Netherlands	+31 88 75 585 61
Norway	+45 735 80500
Poland	+48 42 2538 400
Portugal	+351 800 250 250
Spain	+34 91 562 04 20
Sweden	112
Switzerland	Tox Info Switzerland 145 (24h)
United Kingdom	111

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Hazard statements
H412 - Harmful to aquatic life with long lasting effects

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	*EC No*	*Weight-%*	*Classification according to Regulation (EC) No. 1272/2008 [CLP]*	*Specific concentration limit (SCL)*	*REACH registration number*	*M-Factor*	*M-Factor (long-term)*
Ammonium nitrate; NH_4NO_3 (6484-52-2)	229-347-8	40 - 65%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	Eye Irrit. 2 :: C>=80%	01-2119490981-27	-	-
Diammonium phosphate; $(NH_4)_2HPO_4$ (7783-28-0)	231-987-8	1 - 5%	-	-	01-2119490974-22	-	-
Calcium sulfate anhydrous; $CaSO_4$ (7778-18-9)	231-900-3	1 - 5%	-	-	01-2119444918-26	-	-
Iron sulphate; $FeSO_4+7H_2O$ (7782-63-0)	231-753-5	0.1 - 1%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	Skin Irrit. 2 :: C>=25%	01-2119513203-57	-	-
Magnesium oxide; MgO (1309-48-4)	215-171-9	0.1 - 1%	-	-	Exempt	-	-
Iron-EDTA-13; Fe-EDTA (15708-41-5)	239-802-2	0.1 - 1%	-	-	01-2119496228-27	-	-
Wax (112945-52-5)	601-216-3	0.1 - 1%	-	-	01-2119488076-30	-	-
Calcium fluoride; CaF_2 (7789-75-5)	232-188-7	0.1 - 1%	-	-	Exempt	-	-
Copper sulphate anhydrous; $CuSO_4$ (7758-98-7)	231-847-6	0.1 - 1%	Skin irrit. 2 (H319) Eye irrit. 2 (H315) Acute Tox. 4 (H302) Aquatic Chronic 1 (H410)	-	01-2119520566-40	10	10
Manganese sulphate; $MnSO_4+1H_2O$ (7785-87-7)	232-089-9	< 0.1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	-	01-2119456624-35	-	-
Sodium tetraborate pentahydrate (12179-04-3)	601-808-1	< 0.1%	Eye Dam. 2 (H319) Carc.1B (H360)	-	Not available	-	-
Zinc sulphate+1H2O; $ZnSO_4+1H_2O$ (7446-19-7)	231-793-3	< 0.1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	01-2119474684-27	1	1
Sodium molybdate; Na_2MoO_4 (7631-95-0)	231-551-7	< 0.1%	-	-	01-2119489495-21	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from

CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L
Ammonium nitrate; NH_4NO_3	2217	5000	88.8
Diammonium phosphate; $(NH_4)_2HPO_4$	2000	5000	No data available
Calcium sulfate anhydrous; $CaSO_4$	3000	No data available	No data available
Magnesium oxide; MgO	3870 3990	No data available	No data available
Iron-EDTA-13; Fe-EDTA	5000	No data available	No data available
Wax	3160	No data available	No data available
Calcium fluoride; CaF_2	4250	No data available	No data available
Copper sulphate anhydrous; $CuSO_4$	300	1000	No data available
Manganese sulphate; $MnSO_4+1H_2O$	782	No data available	No data available
Sodium tetraborate pentahydrate	2403	No data available	No data available
Sodium molybdate; Na_2MoO_4	4000	No data available	No data available

Chemical name	CAS No	SVHC candidates
Sodium tetraborate pentahydrate	12179-04-3	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aid measures should be executed by trained personnel only.

Inhalation Remove to fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary. If not breathing, give artificial respiration. If symptoms persist, call a physician. Dusty conditions are unlikely if product is used as intended. However, if prolonged inhalation of dust occurs, remove casualty to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

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

Symptoms None known.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.
In case of fire, the product will smoulder even without the presence of external oxygen. In these conditions the product will show self sustaining decomposition. The best method to extinguish the fire is to cool the decomposition front with water Thermal decomposition can lead to release of irritating and toxic gases and vapors

Hazardous Combustion Products Carbon oxides. Phosphorus oxides. Ammonia. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Wear protective gloves/protective clothing and eye/face protection.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8. Prevent entry into waterways, sewers, basements or confined areas.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal. Use up product completely. Packaging material is industrial waste.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions KEEP OUT OF REACH OF CHILDREN AND PETS. Keep container tightly closed in a dry and well-ventilated place. For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used packaging should be closed well.

Packaging materials Keep in original container, tightly closed in a safe place.

7.3. Specific end use(s)

Specific use(s) Fertilizer.

Exposure scenario Mixture. Not required.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other Information

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Calcium sulfate anhydrous; $CaSO_4$	-	TWA: 5 mg/m³ STEL 10 mg/m³	TWA: 10 mg/m³	TWA: 10.0 mg/m³	-
Iron sulphate; $FeSO_4+7H_2O$	-	-	TWA: 1 mg/m³	TWA: 1.0 mg/m³	TWA: 1 mg/m³ STEL: 2 mg/m³
Magnesium oxide; MgO	-	STEL 10 mg/m³ TWA: 5 mg/m³	TWA: 10 mg/m³	TWA: 10.0 mg/m³	TWA: 4 mg/m³ TWA: 10 mg/m³
Iron-EDTA-13; Fe-EDTA	-	-	TWA: 1 mg/m³	TWA: 1.0 mg/m³	TWA: 1 mg/m³ STEL: 2 mg/m³
Wax	-	TWA: 4 mg/m³	-	-	-
Calcium fluoride; CaF_2	TWA: 2.5 mg/m³	-	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³
Copper sulphate anhydrous; $CuSO_4$	-	STEL 4 mg/m³ TWA: 1 mg/m³	-	TWA: 1.0 mg/m³	-
Manganese sulphate; $MnSO_4+1H_2O$	-	TWA: 0.2 mg/m³ STEL 1.6 mg/m³	TWA: 0.2 mg/m³	TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Sodium tetraborate pentahydrate	-	-	TWA: 2 mg/m³ STEL: 6 mg/m³	TWA: 5.0 mg/m³	TWA: 1 mg/m³
Sodium molybdate; Na_2MoO_4	-	TWA: 5 mg/m³ STEL 10 mg/m³	TWA: 0.5 mg/m³	TWA: 5.0 mg/m³ TWA: 10.0 mg/m³	TWA: 5 mg/m³ STEL: 10 mg/m³

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ammonium nitrate; NH_4NO_3	-	TWA: 10.0 mg/m³	-	-	-
Iron sulphate; $FeSO_4+7H_2O$	-	-	TWA: 1 mg/m³	-	TWA: 1 mg/m³
Magnesium oxide; MgO	-	TWA: 5 mg/m³ Ceiling: 10 mg/m³	TWA: 6 mg/m³	-	-
Iron-EDTA-13; Fe-EDTA	-	-	TWA: 1 mg/m³	-	TWA: 1 mg/m³
Calcium fluoride; CaF_2	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³ Ceiling: 5 mg/m³	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³
Copper sulphate anhydrous; $CuSO_4$	-	-	-	TWA: 1 mg/m³ TWA: 0.2 mg/m³	TWA: 0.02 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 1 mg/m³ Ceiling: 2 mg/m³	TWA: 0.2 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.02 mg/m³ TWA: 0.2 mg/m³
Sodium tetraborate pentahydrate	-	-	TWA: 1 mg/m³	-	-
Sodium molybdate;	-	TWA: 5 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³	TWA: 0.5 mg/m³

Na_2MoO_4		Ceiling: 25 mg/m³			
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Calcium sulfate anhydrous; $CaSO_4$	TWA: 10 mg/m³	TWA: 6 mg/m³	TWA: 1.5 mg/m³ TWA: 4 mg/m³	-	TWA: 4 mg/m³ TWA: 1.5 mg/m³
Iron sulphate; $FeSO_4+7H_2O$	-	-	-	TWA: 1 mg/m³ STEL: 2 mg/m³	-
Magnesium oxide; MgO	TWA: 10 mg/m³	TWA: 1.25 mg/m³ TWA: 10 mg/m³	TWA: 0.3 mg/m³ TWA: 4 mg/m³ Peak: 2.4 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	TWA: 6 mg/m³
Iron-EDTA-13; Fe-EDTA	-	-	-	TWA: 1 mg/m³ STEL: 2 mg/m³	-
Wax	-	-	TWA: 4 mg/m³	-	-
Calcium fluoride; CaF_2	TWA: 2.5 mg/m³	TWA: 1 mg/m³	TWA: 1 mg/m³ *	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³ *
Copper sulphate anhydrous; $CuSO_4$	-	-	TWA: 0.01 mg/m³ Peak: 0.02 mg/m³	-	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$	-	TWA: 0.2 mg/m³ TWA: 0.02 mg/m³	TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Peak: 1.6 mg/m³ Peak: 0.16 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Sodium tetraborate pentahydrate	TWA: 1 mg/m³	-	TWA: 5 mg/m³ Peak: 5 mg/m³	TWA: 10 mg/m³	-
Zinc sulphate+1H2O; $ZnSO_4+1H_2O$	-	-	TWA: 0.1 mg/m³ TWA: 2 mg/m³ Peak: 0.4 mg/m³ Peak: 4 mg/m³	-	-
Sodium molybdate; Na_2MoO_4	TWA: 5 mg/m³ STEL: 10 mg/m³	-	-	TWA: 5 mg/m³	TWA: 5 mg/m³
Chemical name	Italy	Latvia	Lithuania	Luxembourg	Netherlands
Diammonium phosphate; $(NH_4)_2HPO_4$	-	TWA: 6 mg/m³	-	-	-
Calcium sulfate anhydrous; $CaSO_4$	-	TWA: 4 mg/m³	-	-	-
Magnesium oxide; MgO	-	-	TWA: 4 mg/m³	-	-
Calcium fluoride; CaF_2	TWA: 2.5 mg/m³	TWA: 0.5 mg/m³ TWA: 2.5 mg/m³ STEL: 2.5 mg/m³	TWA: 2.5 mg/m³	TWA: 2.5 mg/m³	-
Copper sulphate anhydrous; $CuSO_4$	-	TWA: 0.5 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³	-	TWA: 0.1 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$	TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	-	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Sodium molybdate; Na_2MoO_4	-	-	TWA: 5 mg/m³ TWA: 10 mg/m³	-	-
Chemical name	Norway	Poland	Portugal	Romania	Slovakia
Calcium sulfate anhydrous; $CaSO_4$	-	TWA: 10 mg/m³	TWA: 10 mg/m³	-	TWA: 4 mg/m³ TWA: 1.5 mg/m³
Iron sulphate; $FeSO_4+7H_2O$	TWA: 1 mg/m³ STEL: 3 mg/m³	-	TWA: 1 mg/m³	-	-
Magnesium oxide; MgO	TWA: 10 mg/m³ STEL: 20 mg/m³	TWA: 10 mg/m³	TWA: 10 mg/m³	TWA: 5 mg/m³ STEL: 15 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³
Iron-EDTA-13; Fe-EDTA	TWA: 1 mg/m³ STEL: 3 mg/m³	-	TWA: 1 mg/m³	-	-
Calcium fluoride; CaF_2	TWA: 0.5 mg/m³ STEL: 1.5 mg/m³	TWA: 2 mg/m³	TWA: 2.5 mg/m³	TWA: 1 mg/m³ TWA: 2.5 mg/m³ STEL: 2 mg/m³	TWA: 2.5 mg/m³
Copper sulphate anhydrous; $CuSO_4$	-	TWA: 0.2 mg/m³	-	-	TWA: 1 mg/m³ TWA: 0.2 ppm
Manganese sulphate; $MnSO_4+1H_2O$	TWA: 0.1 mg/m³ STEL: 0.1 ppm	TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	TWA: 0.2 mg/m³
Sodium tetraborate pentahydrate	-	-	TWA: 2 mg/m³ STEL: 6 mg/m³	-	-

Sodium molybdate; Na_2MoO_4	TWA: 5 mg/m³ STEL: 10 mg/m³	STEL: 10 mg/m³ TWA: 4 mg/m³	TWA: 0.5 mg/m³	TWA: 2 mg/m³ STEL: 5 mg/m³	TWA: 5 mg/m³
Chemical name	Slovenia	Spain	Sweden	Switzerland	United Kingdom
Calcium sulfate anhydrous; $CaSO_4$	TWA: 6 mg/m³	TWA: 10 mg/m³	-	TWA: 3 mg/m³	-
Iron sulphate; $FeSO_4+7H_2O$	-	TWA: 1 mg/m³	-	TWA: 1 mg/m³	TWA: 1 mg/m³
Magnesium oxide; MgO	-	TWA: 10 mg/m³	-	TWA: 3 mg/m³	STEL: 12 mg/m³ TWA: 4 mg/m³
Iron-EDTA-13; Fe-EDTA	-	TWA: 1 mg/m³	-	TWA: 1 mg/m³	TWA: 1 mg/m³
Calcium fluoride; CaF_2	TWA: 2.5 mg/m³ *	TWA: 2.5 mg/m³	NGV: 2 mg/m³	-	TWA: 2.5 mg/m³
Copper sulphate anhydrous; $CuSO_4$	-	TWA: 0.1 mg/m³	NGV: 0.01 mg/m³	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³	-
Manganese sulphate; $MnSO_4+1H_2O$	TWA: 0.05 mg/m³ STEL: 0.4 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³	NGV: 0.2 mg/m³ NGV: 0.05 mg/m³	TWA: 0.5 mg/m³	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Sodium tetraborate pentahydrate	-	TWA: 2 mg/m³ STEL: 6 mg/m³	-	-	TWA: 1 mg/m³ STEL: 3 mg/m³
Sodium molybdate; Na_2MoO_4	-	TWA: 0.5 mg/m³	NGV: 5 mg/m³ NGV: 10 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Calcium fluoride; CaF_2	-	4 mg/g Creatinine (urine - before following shift) 7 mg/g Creatinine (urine - immediately after exposure or end of the shift)	-	8 mg/g Creatinine - urine (Fluorides) - at the end of the work shift 4.0 mg/g Creatinine - urine (Fluorides) - before the start of the work shift in the middle of the week	-
Manganese sulphate; $MnSO_4+1H_2O$	-	20 µg/L (blood - whole blood not provided) (-)	-	-	-
Chemical name	Denmark	Finland	France	Germany	Germany MAK
Calcium fluoride; CaF_2	-	-	3 mg/g creatinine - urine (Fluorides) - beginning of shift 10 mg/g creatinine - urine (Fluorides) - end of shift	7.0 mg/g Creatinine (urine - Fluoride end of shift) 4.0 mg/g Creatinine (urine - Fluoride before beginning of next shift)	7.0 mg/g Creatinine (urine - Fluoride end of shift) 4.0 mg/g Creatinine (urine - Fluoride before beginning of next shift)
Manganese sulphate; $MnSO_4+1H_2O$	-	-	-	15 µg/L - BAR (end of exposure or end of shift) blood 15 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) blood	-
Sodium molybdate; Na_2MoO_4	-	-	-	150 µg/L - BAR (not determined) urine	-
Chemical name	Hungary	Ireland	Italy	Latvia	Romania
Calcium fluoride; CaF_2	7 mg/g Creatinine (urine - Fluoride end of shift) 4 mg/g Creatinine (urine - Fluoride	2 mg/L (urine - Fluoride prior to shift) 3 mg/L (urine - Fluoride end of	-	-	5 mg/g Creatinine - urine (Fluorine) - end of shift

	prior to next shift) 42 µmol/mmol Creatinine (urine - Fluoride end of shift) 24 µmol/mmol Creatinine (urine - Fluoride prior to next shift)	shift)			
Chemical name	Slovakia	Slovenia	Spain	Switzerland	United Kingdom
Calcium fluoride; CaF_2	-	7.0 mg/g Creatinine - urine (Fluoride) - at the end of the work shift 4.0 mg/g Creatinine - urine () - before the next working day	-	-	-

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment Wear normal, light working clothing

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Nitrile rubber (0.26 mm). Break through time. > 8 h.

Skin and body protection Lightweight protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance: Granules
Color: brown, blue, green, grey
Odor: Fertilizer.

Property	Values	Remarks • Method
Melting Point/Freezing Point:	No data available	None known
Boiling Point/Range:	No data available	None known
Flammability (solid, gas):	No data available	None known
Flammability Limits in Air:		None known
Upper Flammability Limit:	No data available	
Lower Flammability Limit:	No data available	
Flash Point:	No data available	None known
Autoignition Temperature:	No data available	None known
Decomposition Temperature:		None known

pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic Viscosity:	No data available	None known
Dynamic Viscosity:	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition Coefficient:	No data available	None known
Vapor Pressure:	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Density:	+/-1013 kg/m³	
Vapour density	No data available	None known
Particle characteristics		
Particle Size	No data available	
Particle Size Distribution	No data available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable
Explosive properties: Doesn't present explosion hazard

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not reactive.

10.2. Chemical stability

Stability Stable under normal conditions.

Specific methods:
Sensitivity to mechanical impact Not sensitive.
Sensitivity to static discharge Not sensitive.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Incompatible materials Keep away from catalysts like derivates of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

10.6. Hazardous decomposition products

Hazardous Decomposition Products None under normal processing. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Inhalation of dust in high concentration may cause irritation of respiratory system.

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact May cause irritation.

Ingestion May cause gastrointestinal discomfort if consumed in large amounts.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium nitrate; NH_4NO_3	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Diammonium phosphate; $(NH_4)_2HPO_4$	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Calcium sulfate anhydrous; $CaSO_4$	> 3000 mg/kg (Rat)	-	-
Iron sulphate; $FeSO_4+7H_2O$	= 1520 mg/kg	-	-
Magnesium oxide; MgO	= 3870 mg/kg (Rat) = 3990 mg/kg (Rat)	-	-
Iron-EDTA-13; Fe-EDTA	= 5 g/kg (Rat)	-	-
Wax	= 3160 mg/kg (Rat)	-	-
Calcium fluoride; CaF_2	= 4250 mg/kg (Rat)	-	-
Copper sulphate anhydrous; $CuSO_4$	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	-
Manganese sulphate; $MnSO_4+1H_2O$	= 2125 mg/kg (Rat)	-	> 4.98 mg/L (Rat) 4h
Sodium tetraborate pentahydrate	= 2403 mg/kg (Rat)	-	-
Sodium molybdate; Na_2MoO_4	= 4233 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 2080 mg/m^3 (Rat) 4 h

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.

Chemical name	European Union
Sodium tetraborate pentahydrate 12179-04-3	Repr. 1B

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

STOT - single exposure Based on available data, the classification criteria are not met.
STOT - repeated exposure Based on available data, the classification criteria are not met
Aspiration hazard Based on available data, the classification criteria are not met
Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity
Contains 8 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diammonium phosphate; $(NH_4)_2HPO_4$	-	LC50: 24.8 - 29.4mg/L (96h, Oncorhynchus mykiss) LC50: =26.5mg/L (96h, Oncorhynchus mykiss) LC50: =3.3mg/L (96h, Pimephales promelas) LC50: =33mg/L (96h, Pimephales promelas)	-	-
Calcium sulfate anhydrous; $CaSO_4$	-	LC50: =2980mg/L (96h, Lepomis macrochirus) LC50: >1970mg/L (96h, Pimephales promelas)	-	-
Iron-EDTA-13; Fe-EDTA	-	LC50: >100mg/L (96h, Oncorhynchus mykiss)	-	-
Copper sulphate anhydrous; $CuSO_4$	-	LC50: =0.1mg/L (96h, Oncorhynchus mykiss)	-	0.024: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

Persistence and Degradability: No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Ammonium nitrate; NH_4NO_3	-3.1

12.4. Mobility in soil

Mobility in soil no data available.

Mobility no data available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Ammonium nitrate; NH_4NO_3	The substance is not PBT / vPvB PBT assessment does not apply Further information relevant for the PBT assessment is necessary
Diammonium phosphate; $(NH_4)_2HPO_4$	The substance is not PBT / vPvB PBT assessment does not apply
Calcium sulfate anhydrous; $CaSO_4$	The substance is not PBT / vPvB PBT assessment does not apply
Iron-EDTA-13; Fe-EDTA	The substance is not PBT / vPvB PBT assessment does not apply
Calcium fluoride; CaF_2	The substance is not PBT / vPvB PBT assessment does not apply
Copper sulphate anhydrous; $CuSO_4$	The substance is not PBT / vPvB PBT assessment does not apply
Manganese sulphate; $MnSO_4+1H_2O$	The substance is not PBT / vPvB PBT assessment does not apply
Zinc sulphate+1H2O; $ZnSO_4+1H_2O$	The substance is not PBT / vPvB
Sodium molybdate; Na_2MoO_4	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Other Information Use up product completely. Packaging material is industrial waste. If material is uncontaminated, collect and reuse as recommended for product.

SECTION 14: Transport information

IMDG

14.1
UN-No: 2071

14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3
Transport hazard class(es) 9

14.4
Packing group: III

14.5
Marine Pollutant: Not regulated

Chemical name	IMDG - Marine Pollutants
Copper sulphate anhydrous; $CuSO_4$	IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution)

14.6
EmS: F-H / S-Q
Special Provisions 186, 193

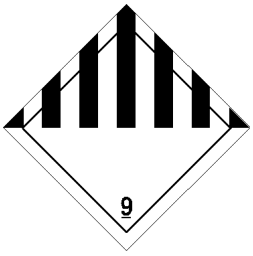
14.7
Bulk transport according Annex II of MARPOL and IBC Code No data available

ADR

14.1
UN-No: Not regulated
14.2
Proper shipping name: Not regulated
14.3
Transport hazard class(es) Not regulated
14.4
Packing group: Not regulated
14.5
Environmental hazards Not regulated
14.6
Special Provisions None

IATA

14.1
UN number or ID number 2071
14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER
14.3
Transport hazard class(es) 9
14.4
Packing group III
14.5
Environmental hazards Not regulated
14.6
Special Provisions A89, A90



SECTION 15: Regulatory information

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

National regulations

Denmark
Sikkerhedsgruppe DK B
France
ICPE Classified installation: article 4702

Chemical name	French RG number	Title
Calcium fluoride; CaF_2	RG 32	-

Germany
Gefahrstoffverordnung (Germany) TRGS 511 B II
Water hazard class (WGK) non-hazardous to water (nwg)

Chemical name	German WGK Section
Ammonium nitrate; NH_4NO_3	1
Diammonium phosphate; $(NH_4)_2HPO_4$	1
Calcium sulfate anhydrous; $CaSO_4$	Reg. no. 325, hazard class 1 - slightly hazardous to water

Chemical name	German WGK Section
Iron sulphate; $FeSO_4+7H_2O$	3
Magnesium oxide; MgO	1
Iron-EDTA-13; Fe-EDTA	2
Wax	3
Calcium fluoride; CaF_2	1
Copper sulphate anhydrous; $CuSO_4$	2
Manganese sulphate; $MnSO_4+1H_2O$	2
Sodium tetraborate pentahydrate	Reg. no. 37, hazard class 1 - slightly hazardous to water
Zinc sulphate+1H2O; $ZnSO_4+1H_2O$	3
Sodium molybdate; Na_2MoO_4	1

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Manganese sulphate; $MnSO_4+1H_2O$	-	-	Fertility Category 2 Development Category 2
Sodium tetraborate pentahydrate	-	-	Fertility Category 1B Development Category 1B
Sodium molybdate; Na_2MoO_4	-	-	Fertility Category 2

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 94/33/EC on the protection of young people at work
Not to be used by professional users below 18 years of age, see the National Working Environment Authorities Executive Order on young peoples dangerous work.

Authorizations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Ammonium nitrate; NH_4NO_3	58.	-
Sodium tetraborate pentahydrate	30.	-

REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors

Chemical name	REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors
Ammonium nitrate; NH_4NO_3	Present (16% by weight of N in relation to AN or higher)

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Persistent Organic Pollutants Not applicable

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ammonium nitrate; NH_4NO_3	350	2500

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

Plant protection products directive (91/414/EEC)

Chemical name	Plant protection products directive (91/414/EEC)
Diammonium phosphate; $(NH_4)_2HPO_4$	Plant protection agent
Iron sulphate; $FeSO_4+7H_2O$	Plant protection agent

EU - Biocides

International Inventories:

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report Substance(s) usage is covered according to Reach regulation 1907/2006

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H272 - May intensify fire; oxidizer
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H360 - May damage fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure
• Calculation method
• Expert judgment and weight of evidence determination

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	*Method Used*
Acute oral toxicity	*Calculation method*
Acute dermal toxicity	*Calculation method*

Acute inhalation toxicity - gas	*Calculation method*
Acute inhalation toxicity - vapor	*Calculation method*
Acute inhalation toxicity - dust/mist	*Calculation method*
Skin corrosion/irritation	*Calculation method*
Serious eye damage/eye irritation	*Calculation method*
Respiratory sensitization	*Calculation method*
Skin sensitization	*Calculation method*
Mutagenicity	*Calculation method*
Carcinogenicity	*Calculation method*
Reproductive toxicity	*Calculation method*
STOT - single exposure	*Calculation method*
STOT - repeated exposure	*Calculation method*
Acute aquatic toxicity	*Calculation method*
Chronic aquatic toxicity	*Calculation method*
Aspiration hazard	*Calculation method*
Ozone	*Calculation method*

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Restrictions on use Restricted to professional users

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End of Safety Data Sheet