

## SAFETY DATA SHEET

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

**1.1. Product identifier**

Product name : FIXA TRACE +

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

Use for agriculture (nutrients/ trace elements for plants)

**1.3. Details of the supplier of the safety data sheet**

Registered company name : AGRONUTRITION SAS..

Address : Parc Activestre - 3 avenue de l'Orchidée.31390.CARBONNE.FRANCE.

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**1.4. Emergency telephone number : +0800 764 766.**

Association/Organisation : New Zealand National Poisons Centre : poisons@otago.ac.nz.

HSNO Approval Number : HSR002571 : Fertilisers (Subsidiary Hazard) Group Standard 2017

### SECTION 2 : HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture**

**GHS compliant / HSNO compliant :**

Acute oral toxicity, Category 4 (Acute Tox. 4, H302) / HSNO Classification : 6.1D

Serious eye damage, Category 1 (Eye Dam. 1, H318) / HSNO Classification : 8.3A

Reproductive toxicity, Category 1B (Repr. 1B, H360) / HSNO Classification : 6.8A

Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400) / HSNO Classification : 9.1A

Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410) / HSNO Classification : 9.1A

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

**2.2. Label elements**

**GHS compliant.**

Hazard pictograms :



GHS05



GHS07



GHS08



GHS09

Signal Word :

DANGER

Product identifiers :

CAS 7446-19-7

CAS 10034-96-5

CAS 7782-63-0

CAS 12280-03-4

CAS 7758-99-8

ZINC SULPHATE (HYDROUS) (MONO-, HEXA- AND HEPTA HYDRATE)

MANGANESE SULPHATE

IRON (II) SULFATE (1:1) HEPTAHYDRATE

DISODIUM OCTABORATE TETRAHYDRATE

COPPER SULPHATE PENTAHYDRATE

Hazard statements :

H302

Harmful if swallowed.

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H318	Causes serious eye damage.
H360	May damage fertility or the unborn child .
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements - General :	
P102	Keep out of reach of children.
Precautionary statements - Prevention :	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Precautionary statements - Response :	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P391	Collect spillage.
Precautionary statements - Disposal :	
P501	Dispose of contents/ container to an approved waste disposal plant.

**2.3. Other hazards**

In use, may form flammable/explosive dust-air mixture.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	GHS	Note	%
CAS: 77-92-9 EC: 201-069-1 REACH: 01-2119457026-42-XXXX  CITRIC ACID	GHS07 Wng Eye Irrit. 2, H319		10 <= x % < 25
CAS: 7446-19-7 EC: 231-793-3 REACH: 01-2119474684-27-xxxx  ZINC SULPHATE (HYDROUS) (MONO-, HEXA- AND HEPTA HYDRATE)	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1		10 <= x % < 25
CAS: 10034-96-5 EC: 232-089-9 REACH: 01-2119456624-35  MANGANESE SULPHATE	GHS05, GHS09, GHS08 Dgr Acute Tox. 5, H303 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 2, H411		2.5 <= x % < 10
INDEX: 026-003-01-4 CAS: 7782-63-0 EC: 231-753-5  IRON (II) SULFATE (1:1) HEPTAHYDRATE	GHS07 Wng Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315		2.5 <= x % < 10
INDEX: 005-020-00-3 CAS: 12280-03-4 EC: 234-541-0 REACH: 01-2119490860-33-XXXX  DISODIUM OCTABORATE TETRAHYDRATE	GHS08 Dgr Repr. 1B, H360	[2] [6]	2.5 <= x % < 10
CAS: 7758-99-8 EC: 231-847-6 REACH: 01-2119520566-40-XXXX  COPPER SULPHATE PENTAHYDRATE	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 10		2.5 <= x % < 10

(Full text of H-phrases: see section 16)

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**Information on ingredients :**

- [2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.
- [6] Substances of very high concern (SVHC).

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

**4.1. Description of first aid measures**

**In the event of exposure by inhalation :**

Remove the victim to fresh air. In case of respiratory problems, consult a doctor/medical service.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

**In the event of splashes or contact with skin :**

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

**In the event of swallowing :**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

**SECTION 5 : FIREFIGHTING MEASURES**

Non-flammable.

**5.1. Extinguishing media**

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist
- foam
- powder
- carbon dioxide (CO<sub>2</sub>)

**5.2. Special hazards arising from the substance or mixture**

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- sulphur dioxide (SO<sub>2</sub>)

**5.3. Advice for firefighters**

No data available.

HAZCHEM CODE : 2Z

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Avoid any contact with the skin and eyes.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Prevent any material from entering drains or waterways.

**FIXA TRACE +****6.3. Methods and material for containment and cleaning up**

Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust.

**6.4. Reference to other sections**

See section 1 for information about emergency contact.

See section 13 for obtain additional information on waste treatment.

See section 8 for information on personal protection equipments.

See section 7 for information on safe handling.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

**Fire prevention :**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture at all times.

Avoid exposure - obtain special instructions before use.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

**7.2. Conditions for safe storage, including any incompatibilities**

No data available.

**Storage**

Keep out of reach of children.

Keep away from food and drink, including those for animals.

**Packaging**

Always keep in packaging made of an identical material to the original.

Replace the label in case of split of packaging.

**7.3. Specific end use(s)**

No data available.

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

No data available.

**Predicted no effect concentration (PNEC):**

MANGANESE SULPHATE (CAS: 10034-96-5)

Environmental compartment:	Soil.
PNEC :	25.1 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.0128 mg/l
Environmental compartment:	Sea water.
PNEC :	0.0004 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.03 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	0.0114 mg/kg
Environmental compartment:	Marine sediment.

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PNEC :	0.00114 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 56 mg/l
<b>CITRIC ACID (CAS: 77-92-9)</b> Environmental compartment: PNEC :	Soil. 29.2 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.44 mg/l
Environmental compartment: PNEC :	Sea water. 0.044 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 7.52 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.752 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 1000 mg/l

**8.2. Exposure controls****Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

Prescription glasses are not considered as protection.

Provide eyewash stations in facilities where the product is handled constantly.

**- Hand protection**

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Butyl Rubber (Isobutylene-isoprene copolymer)
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

Recommended properties :

- Impervious gloves in accordance with standard EN ISO 374-2

**- Body protection**

Suitable type of protective clothing :

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

**- Respiratory protection**

Avoid breathing dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149.

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Category :  
- FFP2

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties****General information :**

Physical state :	Powder or dust.
State	Soluble powder (SP)
Color	Beige to light gray

**Important health, safety and environmental information**

pH (aqueous solution) :	3.2 +/-0.6 (1%)
pH :	Not relevant.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	1.0 (+/-1.5 %)
Water solubility :	Soluble.
Melting point/melting range :	Not relevant.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.

**9.2. Other information**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- sulphur dioxide (SO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

Harmful if swallowed.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

Presumed human reproductive toxicant.

**11.1.1. Substances****Acute toxicity :**

COPPER SULPHATE PENTAHYDRATE (CAS: 7758-99-8)

Oral route :	LD50 = 481 mg/kg
	Species : Rat

MANGANESE SULPHATE (CAS: 10034-96-5)

Oral route :	LD50 = 2150 mg/kg
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Species : Rat

ZINC SULPHATE (HYDROUS) (MONO-, HEXA- AND HEPTA HYDRATE) (CAS: 7446-19-7)

Oral route : LD50 = 574 mg/kg  
Species : Rat

Species : Rat

CITRIC ACID (CAS: 77-92-9)

Oral route : LD50 = 5400 mg/kg  
Species : Mouse  
OECD Guideline 401 (Acute Oral Toxicity)Dermal route : LD50 > 2000 mg/kg  
Species : Rat**Skin corrosion/skin irritation :**

CITRIC ACID (CAS: 77-92-9)

Species : Rabbit

**Germ cell mutagenicity :**

CITRIC ACID (CAS: 77-92-9)

No mutagenic effect.

Mutagenesis (in vivo) :

Negative.  
Species : Rat  
OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

Mutagenesis (in vitro) :

Negative.  
Species : Bacteria

Ames test (in vitro) :

Negative.

**Reproductive toxicant :**

CITRIC ACID (CAS: 77-92-9)

No toxic effect for reproduction

**11.1.2. Mixture**

No toxicological data available for the mixture.

**SECTION 12 : ECOLOGICAL INFORMATION**

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

**12.1. Toxicity****12.1.1. Substances**

CITRIC ACID (CAS: 77-92-9)

Algae toxicity : NOEC = 425 mg/l  
Species : Scenedesmus quadricauda  
Duration of exposure : 7 days

MANGANESE SULPHATE (CAS: 10034-96-5)

Fish toxicity : LC50 = 38.9 mg/l  
Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 8.3 mg/l  
Species : Daphnia magna  
Duration of exposure : 48 h

ZINC SULPHATE (HYDROUS) (MONO-, HEXA- AND HEPTA HYDRATE) (CAS: 7446-19-7)

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Fish toxicity :	LC50 = 0.6 mg/l Factor M = 1 Species : Pimephales promelas Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 0.56 mg/l Factor M = 1 Species : Daphnia magna Duration of exposure : 48 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability****12.2.1. Substances**

MANGANESE SULPHATE (CAS: 10034-96-5)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

ZINC SULPHATE (HYDROUS) (MONO-, HEXA- AND HEPTA HYDRATE) (CAS: 7446-19-7)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

CITRIC ACID (CAS: 77-92-9)

Chemical oxygen demand : DCO = 728 g/kg

Five-day biochemical oxygen demand : DBO5 = 526 g/kg

Biodegradability : Rapidly degradable.

**12.3. Bioaccumulative potential****12.3.1. Substances**

CITRIC ACID (CAS: 77-92-9)

Octanol/water partition coefficient : log K<sub>ow</sub> = -1.8

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

No data available.

**12.6. Other adverse effects**

No data available.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**Local arrangements :**

Product must be disposed of in accordance with local and national regulations.



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**SECTION 14 : TRANSPORT INFORMATION**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2020).

**14.1. UN number**

3077

**14.2. UN proper shipping name**

UN3077=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(copper sulphate pentahydrate)

**14.3. Transport hazard class(es)**

- Classification :



9

**14.4. Packing group**

III

**14.5. Environmental hazards**

- Environmentally hazardous material :

**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M7	III	9	90	5 kg	274 335 375 601	E1	3	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 kg	F-A, S-F	274 335 966 967 969	E1	Category A SW23	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	956	400 kg	956	400 kg	A97 A158 A179 A197	E1
	9	-	III	Y956	30 kg G	-	-	A97 A158 A179 A197	E1

Not subject to this regulation if Q ≤ 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available.

**SECTION 15 : REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

The following regulations have been used:

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS), review no. 7 (2017)

**- Container information:**

No data available.

**- Particular provisions :**

No data available.

**15.2. Chemical safety assessment**

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HSNO Approval Number : HSR002571 : Fertilisers (Subsidiary Hazard) Group Standard 2017  
HSNO Classifications : 6.1D, 8.3A, 6.8A, 9.1A

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H302	Harmful if swallowed.
H303	May be 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.
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

**Abbreviations :**

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

GHS05 : Corrosion

GHS07 : Exclamation mark

GHS08 : Health hazard

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.