

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 02.03.2023

Version number 1

Revision: 02.03.2023

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

- **1.1 Product identifier**
- **Trade name:** 6 Iron
- **CAS Number:**
7782-63-0
- **EC number:**
231-753-5
- **Index number:**
026-003-01-4
- **Registration number** Mixture
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** SU1 Agriculture, forestry, fishery
- **Product category** PC12 Fertilisers
- **Application of the substance / the mixture** Fertiliser
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agrovista UK Ltd
Rutherford House
Nottingham Science and Technology Park
University Boulevard
Nottingham
NG7 2PZ
UK

Tel: +44 (0)1952 897910
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Acute Tox. 4 H302 Harmful if swallowed.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2 H319 Causes serious eye irritation.

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- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the GB CLP regulation.
 - **Hazard pictograms** GHS07
 - **Signal word** Warning
 - **Hazard-determining components of labelling:**
ferrous sulfate heptahydrate
Sulphuric acid
 - **Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
 - **Precautionary statements**
P280 Wear eye protection / face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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P330 Rinse mouth.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
7782-63-0 ferrous sulfate heptahydrate
- **Identification number(s)**
- **EC number:** 231-753-5
- **Index number:** 026-003-01-4

· Impurities and stabilising additives:

CAS: 7664-93-9	Sulphuric acid
EINECS: 231-639-5	 Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: $C \geq 15\%$ Skin Irrit. 2; H315: $5\% \leq C < 15\%$ Eye Irrit. 2; H319: $5\% \leq C < 15\%$

· Dangerous components:

CAS: 7664-93-9	Sulphuric acid	 Skin Corr. 1A, H314	0.1-1%
EINECS: 231-639-5			

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and delayed** Nausea
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
In case of fire, the following can be released:
Sulphur Oxides (SO_x)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear fully protective suit.
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Do not store in aluminium, galvanised or copper containers.
- **Information about storage in one common storage facility:**
Do not store together with acids.
Store away from oxidising agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 13
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

7720-78-7 Iron sulphate

WEL	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ as Fe
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7664-93-9 Sulphuric acid

WEL	Long-term value: 0.05* mg/m ³ *mist: defined as thoracic fraction
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- **DNELs**
Workers - Dermal; Long term systemic effects: 2.8 mg/kg
General population - Dermal; Long term systemic effects: 1.4 mg/kg
General Population - Oral; Long term systemic effects: 0.28 mg/kg
General Population - Oral; Short term systemic effects: 20 mg/kg
- **PNECs** No hazards identified.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
Thickness: 0.1 mm.
Break-through time: 480 minutes
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:**
Acid resistant protective clothing
Body protection must be chosen depending on product properties, activity and possible exposure.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Solid
Colour:	Light green
Odour:	Acidic
Odour threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/freezing point:	64 °C
Initial boiling point and boiling range:	>300 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Product is not flammable.

· Decomposition temperature: Not determined.

· Ignition temperature: Not determined.

· Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: <0.1 hPa

· Density at 20 °C:	1.9 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with water at 20 °C: 400 g/l

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

· 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions

Reacts with metals forming hydrogen.

Reacts with oxidising agents.

Reacts with alkali (lyes).

· 10.4 Conditions to avoid No further relevant information available.

· 10.5 Incompatible materials:

Alkalies

Strong oxidising agents.

Metals

· 10.6 Hazardous decomposition products:

Hydrogen

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Sulphur oxides (SOx)

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SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity

Harmful if swallowed.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	506 mg/kg (rat)
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7720-78-7 Iron sulphate

Oral	LD50	300 mg/kg (rat)
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· Primary irritant effect:

· Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

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

· Additional toxicological information:

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

· 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.

· 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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity: No further relevant information available.

· 12.2 Persistence and degradability

Inorganic product, is not eliminable from water by means of biological cleaning processes.

· 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.

· 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

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Must not be disposed together with household garbage. Do not allow product to reach sewage system. Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA** Void

- **14.2 UN proper shipping name**

- **ADR, IMDG, IATA** Void

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

- **ADR, ADN, IMDG, IATA**

- **Class** Void

- **14.4 Packing group**

- **ADR, IMDG, IATA** Void

- **14.5 Environmental hazards:**

Not applicable.

- **14.6 Special precautions for user**

Not applicable.

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

Not applicable.

- **Transport/Additional information:**

Not dangerous according to the above specifications.

- **UN "Model Regulation":**

Void

SECTION 15: Regulatory information

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

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** Substance is not listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H314 Causes severe skin burns and eye damage.

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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