

Liquid Iron 7% Fe

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1 Name of Product

Liquid Iron 7% Fe

1.2 Use of the Substance/Preparation

Fertiliser

1.3 Manufacturer/Distributor

Thomas Elliott (Fertilisers)
Selby Place
Stanley Industrial Estate
Skelmersdale
WN8 8EF
Tel: 01695 51875
Email: info@thomas-elliott.co.uk

1.4 Emergency Contact

Tel: 01695 51875 (Office Hours)

2. HAZARDS IDENTIFICATION

2.1 Classification

Classification according to Directive EC 1272/2008 Classification, Labelling and Packaging.

Physical hazards

Not Classified

Health hazards

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Environmental hazards

Not Classified

2.2 Label elements

Pictogram



Signal Word

Warning

Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

Precautionary statements

P264 Wash thoroughly after use.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Product fails to meet PBT/vPvB criteria

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS	Classification	Percentage
Iron (II) Sulphate 7(H ₂ O)	7720-78-7	Acute tox 4 H302 Skin irr 2 H315 Eye irr 2 H319	25-50

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye contact – Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

Skin contact – Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

Ingestion – Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

Inhalation – This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed

Seek medical attention if symptoms develop or persist.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Use foam, carbon dioxide, dry powder, sand. The mixture is not classified as flammable. As such extinguishing media appropriate for surrounding materials should be chosen.

5.2 Special hazards arising from substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, etc).

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13. Dilute residues from larger spillages with water and neutralise with lime or limestone powder.

7. HANDLING & STORAGE

7.1 Precautions for Safe Handling

Ensure good ventilation at workplace. Ensure good hygiene practices are observed. Do not eat, drink or smoke when handling this product. Do not breathe dust. Avoid contact with skin and eyes. Ensure workplace exposure limits are observed. Do not block stack pallets. Wear gloves in a suitable material such as PVC, neoprene or natural rubber. Please observe the instructions regarding permeability and breakthrough time, which are provided by the supplier of the gloves. Also consider the specific local conditions under which the product is used, such as danger of cuts, abrasion and contact time. Tightly fitting safety goggles must be worn.

7.2 Conditions for Safe Storage

Technical measures for storage

Minimum Temperature: 5 °C

Maximum Temperature: 30 °C

General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use

Fertiliser

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Iron (II) Sulphate 7(H₂O) (CAS 7720-78-7), Desired No Effect Level (DNEL)

Worker

Systemic long-term effects dermal: 2.8 mg/kg/day

General Population

Acute systemic effects oral: 20.0 mg/kg

Systemic long-term effects oral: 0.28 mg/kg

Systemic long-term effects dermal: 1.4 mg/kg

Iron (II) Sulphate 7(H₂O), Predicted No Effect Concentration (PNEC)

Not applicable

8.2 Exposure Controls:

Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding UKCA marking. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

Specific protection for the hands

Mandatory hand protection

Protective gloves against minor risks.

Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+ A1:2018

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

Eye and face protection

Mandatory face protection

Panoramic glasses against splash/projections. Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Body protection

Work clothing

Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

Anti-slip work shoes

Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 and EN 13832-1:2007.

Additional emergency measures

Emergency shower

ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011

Eyewash stations

DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	n/a
Physical state at 20°C	Liquid
Odour	n/a
Colour	n/a
pH	2.5-3.5
Boiling point	n/a
Flash point	n/a
Flammability	Non Flammable (>60°C)
Autoflammability	n/a
Explosivity	n/a
Oxidising properties	n/a
Vapour Pressure	n/a
Relative density	1.17-1.21
Solubility	n/a
Decomposition temperature	n/a

9.2 Other Information:

None

10. STABILITY & REACTIVITY

10.1 Reactivity

The substance is stable under normal use.

10.2 Stability

Chemically stable under the indicated conditions of storage, handling and use.

10.4 Conditions to Avoid

Not applicable.

10.5 Incompatible materials

Avoid strong acids.

Avoid alkalis or strong bases.

10.6 Hazardous Decomposition Products

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: Mixture based on inorganic substances.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

Ingestion (acute effect):

Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

Inhalation (acute effect):

Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.

Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

Contact with the skin and the eyes (acute effect):

Contact with the skin: Produces skin inflammation.

Contact with the eyes: Produces eye damage after contact.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

IARC: Non-applicable

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.

Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

Specific target organ toxicity (STOT)-repeated exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific toxicology information on the substances:

Acute toxicity, data for iron (II) sulphate 7(H₂O)

LD/LC50 values that are relevant for classification:

Oral LD50	1480	mg/kg (rat) (OECD 423)
Dermal LD50		not applicable
Inhalative LC50		not applicable

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not available

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB

The product does not contain any substances classified as PBT or vPvB.

12.6 Other adverse data

No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Type of waste:

EWC Code: 06 10 02* wastes containing hazardous substances

HP6 Acute Toxicity

HP4 Irritant – skin irritation and eye damage

Waste Management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA Not applicable

14.2 UN proper shipping name

ADR, IMDG, IATA Not applicable

14.3 Transport hazard class(es)

ADR, IMDG, IATA Not applicable

14.4 Packaging Group

ADR, IMDG, IATA Not applicable

14.5 Environmental hazards

Not an environmentally hazardous substance.

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Listed

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific to this substance:

Substances listed in UK candidate list of substances of very high concern (SVHCs):

Non-applicable

Substances listed in UK REACH Authorisation List (Annex 14):

Non-applicable

The Control of Major Accident Hazards Regulations 2015:

Non-applicable

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,

- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits

The Fertilisers and Ammonium Nitrate Material (Amendment) (EU Exit) Regulations 2019

15.2 Chemical Safety Assessment

Not undertaken for this material

16. OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation:

Acute Tox. 4: H302 - Harmful if swallowed.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Skin Irrit. 2: H315 - Causes skin irritation.

Classification procedure:

Skin Irrit. 2: Calculation method

Eye Irrit. 2: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

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

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

Liability

The product label provides information on the use of the product: do not use otherwise, unless you have assessed any potential hazard involved and the safety measures required. Prepared by Thomas Elliott (Fertilisers), for Health and Safety purposes from the best knowledge available at the time of printing.