

SAFETY DATA SHEET

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

1.1 Product Identifier:

Pentagon Heptasol Soluble Iron

1.2 Relevant uses of the substance or mixture and uses advised against:

Supplied for use as a professional use fertiliser

1.3 Details of the supplier of the safety data sheet:

**The Nutrel Group
Park Farm
Kettlethorpe
Lincoln
LN1 2LD**

**Contact: The Safety Officer
Phone number: 00 44 (0) 1522 704404
Email: Stuart.Rycroft@nutrelgroup.co.uk**

1.4 Emergency phone number

Phone number: 00 44 (0) 1522 704404

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFICATION (according to Regulation (EC No 1272/2008))

Acute Tox 4, - H302

Skin Irrit 2 – H315

Eye Irrit 2 – H319

CLASSIFICATION (according to regulation 67/548/EEC)

Xn, R22 R36/38

Primary Hazard

Harmful if swallowed

2.2 Label Elements

Pentagon Heptasol Soluble Iron (contains Iron (II) Sulphate heptahydrate EC: 231-753-5)



WARNING

H302: Harmful If swallowed

H315: Causes skin Irritation

H319: Causes serious eye irritation

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

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P501: Dispose of contents/container in accordance with local/regional/ national/international regulations

2.3 Other Hazards

Irritating to eyes and skin. Not classed as PBT or vPvB

3.COMPOSITION/INFORMATION ON INGREDIENTS

Product Code : R269

3.1 Substance

Chemical Name	CAS-No./ EINECS-No.	Symbol(s)	H-phrase(s)	Concentrations [%]
Iron (II) sulphate heptahydrate	7782-63-0 231-753-5	GHS07 Wng.	H302 H319 H315	100%

The full text for all R-Phrases and H-statements if not displayed in section 2 or 3 are displayed in Section 16.

FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation

Remove from source of exposure to fresh air; seek medical attention

4.1.2 Skin & Eye exposure

Drench immediately with water. Remove any contaminated clothing and launder before re-use. Seek medical attention if symptoms persist.

Eyes: Immediately rinse with clean water for 15 minutes. Obtain prompt medical attention.

4.1.3 Ingestion

Do not induce vomiting. Wash out mouth with water and give water to drink. Obtain medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Information not available

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

Information not available

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 should be chosen as appropriate for surrounding materials.

5.2 Special Hazards arising from the substance or mixture

If heated above 600°C the material gives off acidic fumes of sulphur dioxide, which are toxic but not flammable.

5.3 Advice for fire-fighters

Cool down containers/equipment exposed to heat with a water spray. Contain spread of extinguishing fluids. Wear complete protective clothing and self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment, clothing gloves and eye/face protection
Avoid contact with skin and eyes

6.2 Environmental Precautions

Do not allow to enter storm drains or water courses. If this product enters a water course or a sewer (including via contaminated soil & vegetation) contact local water authority and inform the Environment Agency

6.3 Methods and material for containment and cleaning up

Sweep avoiding generating dust into labelled containers for recovery or contact specialist waste disposal contractor.

6.4 Reference to other sections

No reference necessary

7.HANDLING AND STORAGE

7.1 Precaution for safe handling

Open containers with care to avoid generating dust.

Avoid contact with skin and eyes. Wash Hands thoroughly after handling

Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry atmosphere, in original labelled containers. Do not store together with alkali (caustic solutions) Refer to manufacturer for maximum safe stacking height. Protect from heat and direct sunlight.

7.3 Specific end use(s)

No specific information available

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Occupational exposure Limits:

 LTEL (8 hour) 1mg/m³ OES as Fe

 STEL (15min) 2mg/m³ for iron salts as Fe

 TLV 1 mg/m³ for soluble salts as Fe

8.2 Exposure controls

Primary hazard considered as handling of concentrate

Gloves – BS EN388 – Level ≥ 4 permeation value (EN374)

Eye Protection – goggles/face shield to BS EN166

Respirator to be used when handling bulk material and high concentrations Filter EN149: FFP2

9.PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance; Green Crystalline powder

Odour; Sour rust smell.

Odour threshold; Information not specified

pH; ~2 @ 20°C

Melting point/freezing; ~64°C

Initial boiling point and boiling range; Information not specified

Flash point; Information not specified

Evaporation rate; Information not specified

Flammability (solid, gas); Mixture not classified as flammable

Upper /lower flammability or explosive limits; Mixture not classified as explosive

Viscosity; dynamic at 20°C = 3 mPas

Vapour density; Information not specified

Specific gravity; density at 20°C = 0.8 -0.9 kg/l

Solubility (ies); 365 g/l in water at 10°C

Partition coefficient: n-octanol/water; Information not specified

Auto ignition temperature: Information not specified

Decomposition temperature: Information not specified

9.2 Other Information

No other relevant information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Unknown

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

No Hazardous reactions known

10.4 Conditions to avoid

Extremes of temperature and alkaline materials

10.5 Incompatible materials

Alkaline/ oxidising agents materials

10.6 Hazardous decomposition products

If heated to above 600°C gives off acidic fumes sulphur trioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Oral LD50 (rat) 1520 mg kg

Skin Irritation: classified as skin irritant as precautionary measure based on physical properties

Eye Irritation: classified as irritation to eyes as a precautionary measure based on physical properties

Additional toxicological information:

Harmful

Intestinal absorption of Iron (II) Sulphate in large quantities may cause paralysis effects similar to those caused by Magnesium toxicity, and may include vomiting, hypotension, hyporeflexia, constrictions of the stomach and Melena.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not classified as harmful to the environment in accordance with the CHIP regulations 2009, regulation 1999/45/EC and CL&P regulation EC 1272/2008

Daphnia magna EC50: 59.8mg/L

Poecilia reticulata LC50/96 h\925 mg/l

12.2 Persistence and degradability

Information not available

12.3 Bioaccumulative potential

Information not available

12.4 Mobility in soil

Information not available

12.5 Results of PBT and vPvB

Not classified

12.6 Other adverse effects

Information not available

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Use only licensed waste disposal companies. Do not re-use empty containers for any purpose.

14. TRANSPORT INFORMATION

14.1 UN number: Product is unclassified for transport

14.2 UN proper shipping name: Product is unclassified for transport

14.3 Transport hazard Product is unclassified for transport

14.4 Packing group: Product is unclassified for transport

14.5 Environmental hazards: Product is unclassified for transport

14.6 Special precautions for user: Product is unclassified for transport

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:
Applicable for Maritime bulk transport only. Check with carrier.

15. REGULATORY INFORMATION

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

This substance is classified and labelled in accordance with regulation 67/548/EEC, 1272/2008 and the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations.

15.2 Chemical Safety Assessment

CSA not undertaken for this substance

16. OTHER INFORMATION

**FULL HAZARD INFORMATION FROM CLASSIFICATION UNDER DIRECTIVE 67/548/EEC AND REGULATION 1272/2008
(SECTION 2.1)**

Xn



HARMFUL

Full Risk Phrases:

R22: Harmful if Swallowed

R36/38: Irritating to Eyes and Skin

Safety phrases:

S2: Keep out of reach of children

S46: If swallowed seek medical advice immediately (show the label where possible)

MSDS information:

This Material Safety data sheet is compiled using data submitted for raw materials and practical experience. This product is intended for professional users only.

This Safety Data Sheet is prepared in compliance with Directive 1999/45/EC, 67/548/EEC, 1272/2008 and Annex I of the REACH regulation 453/2010.

THE INFORMATION GIVEN HEREIN IS, TO THE BEST OF OUR KNOWLEDGE, CORRECT AND IS PRESENTED IN GOOD FAITH BUT NO WARRANTY, EXPRESSED OR IMPLIED IS GIVEN.

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