VITAX SAFETY INFORMATION SHEET

Date of Issue: February 2004
Revision: January 2015

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

1.1 Product Identifier: HYDRANGEA COLOURANT

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

1.3 Manufacturer/Distributor:
Vitax Limited
Owen Street
Coalville
LE67 3DE
Tel: 01530 510060 Fax: 01530 510299 Email: tech@vitax.co.uk

1.4 Emergency Contact: Tel: 01530 510060 (Office Hours)

2. HAZARDS IDENTIFICATION

2.1 Classification:
Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)
Eye Dam. 1 H318: Causes serious eye damage

2.2 Label Elements: Contains 15.3% Aluminium Sulphate (EC10043-01-3)

Signal word: Danger
Hazard statements: H31 Causes serious eye damage.
Precautionary Statements
P101 Read label before use
P102 Keep out of reach of children
P103 If medical advice is needed, have product label or container at hand
P280 Wear eye/face protection.
P305/351/338 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 or doctor/physician.

2.3 Other Hazards: n/a.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s) and Phrases	Precautionary Statements:	Concentration [%]
Ferrous Sulphate	7782-63-0/ 231-753-5	026-003-01-4 Index number 01-2119513203-57-XXXX REACH registration number	GHS07 Acute Tox. 4 H302: Harmful if swallowed Skin Irrit. 2 H315: Causes skin irritation Eye Irrit. 2 H319: Causes serious eye irritation	P273 P280 P301/312 P302/352 P305/351/338 P313	6.7
Aluminium sulphate ashexadecahydrate	10043-01-03 233-135-0		GHS05 Eye Dam 1 H318: Causes serious eye damage	P280 P305/351/338 P310	15.3 as Al_2O_3

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye contact – Rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison centre or doctor/physician.

Skin contact – Immediately wash skin with plenty of soap and water. Get medical attention if irritation develops or persists..

Ingestion – Wash out mouth with water and seek medical advice.

Inhalation – Remove the affected person immediately to fresh air. Get medical attention if needed.

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of immediate medical attention and special treatment needed:

In case of shortness of breath, give oxygen. Keep patient warm. Keep under observation. Symptoms may be delayed**.** Additional medical guidance is available to doctors from the National Poisons Information Service.

5. FIRE FIGHTING MEASURES

Non flammable

5.1 Extinguishing Media: If involved in a fire use water spray, CO_2 or dry powder.

5.2 Special hazards arising from substance or mixture:

Under intense heat, product decomposition will release toxic sulphur oxide fumes.

5.3 Advice for firefighters: Wear self-contained breathing apparatus in confined spaces. Contain contaminated run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions: Ensure adequate ventilation. Wear a suitable dust mask if dust is generated above exposure limits. Wear eye protection. Wash hands and exposed skin after handling.

6.2 Environmental precautions: Do not allow to enter drains or sewers.

6.3 Methods and material for containment and cleaning up:

Sweep up spills carefully to minimise dust. Transfer to heavy duty plastic bags or drums and keep safe for disposal. .

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.

7.2 Conditions for Safe Storage: Store in original containers, tightly closed in a secure, well ventilated, cool but frost-free, dry area. Store clear of foodstuffs and in a separate stack from herbicides.

7.3 Specific end use: Fertiliser.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters: The OEL (Occupational Exposure Limit) for aluminium sulphate 17% is 2mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average

DNELs

Figures stated are aluminium sulphate 17%

Worker

Acute systemic effects, oral: 5.7 mg/kg/d

Consumer

Acute systemic effects, oral: 3.7 mg/kg/d

Figures stated are for ferrous sulphate.$7H_2O$

Consumer

Acute systemic effects, oral: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Acute systemic effects, dermal: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Acute systemic effects, inhalative: ($FeS0_4*7H_20$) 2.5 mg/m^3
Systemic long-term effects, oral: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Systemic long-temi effects, dermal: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Systemic long-temi effects, inhalative: ($FeS0_4*7H_20$) 2.5 mg/m^3

Worker

Acute systemic effects, dermal: ($FeS0_4*7H_20$) 2.8 mg/kg/d
Acute systemic effects, inhalative: ($FeS0_4*7H_20$) 9.9 mg/m^3
Systemic long-term effects, dermal: ($FeS0_4*7H_20$) 2.8 mg/kg/d
Systemic long-term effects, inhalative: ($FeS0_4*7H_20$) 9.9 mg/m^3

Consumer

Acute systemic effects, oral: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Acute systemic effects, dermal: ($FeS0_4*7H_20$) 1.4 mg/kg/d

Acute systemic effects, inhalative: ($FeS0_4*7H_20$) 2.5 mg/m^3
Systemic long-term effects, oral: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Systemic long-temi effects, dermal: ($FeS0_4*7H_20$) 1.4 mg/kg/d
Systemic long-temi effects, inhalative: ($FeS0_4*7H_20$) 2.5 mg/m^3

PNECs	Not available for aluminium sulphate salts. The PNECs given in this section were derived based on the concentration which would cause a 10% increase above typical natural background levels of iron in soil and sediment. Thus the respective PNEC is equal to 110% of the typical natural background level of iron.
Water	Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived.
Sewage treatment plants (STP)	PNEC STP Fe: 500 mg/l;
Sediment	PNEC Sediment (freshwater): Fe: 49.5 g/kg; PNEC Sediment (marine water): Fe: 49.5 g/kg; Soil PNEC soil: Fe: 55.5 g/kg;
Oral (food chain)	Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived

8.2 Exposure Controls:

Personal protective equipment:

General protective and hygienic measures: The general personal protection measures of the chemical industry apply. The usual precautionary measures should be adhered to in the handling of the chemicals. Wear protective gloves and eye protection. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when handling this product.

Breathing equipment: Dust Mask FFP2 Not required if all workplace limits are observed and good ventilation is ensured.

Protection of hands: Requirements according to EN 420. Check protective gloves prior to each use for their proper condition. Preventive skin protection by use of skin protecting agents is recommended.

Material of gloves: Polychloroprene recommended.

Penetration time of glove material: Protective gloves should be replaced at first sign of wear

Eye protection: Tightly sealed safety glasses.

Body protection: Protective work clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	off white powder/granule
Odour	none
pH	approx 3 at 5% w/w in water
Boiling point	decomposes at 770 deg C
Melting point	not available
Flash point	none
Flammability	not flammable
Autoflammability	none
Explosivity	none
Oxidising properties	none
Vapour Pressure	not available
Relative density	not available
Solubility	soluble in water

9.2 Other information: none

10. STABILITY & REACTIVITY

10.1 Reactivity: no data

10.2 Stability: Stable under normal conditions.

10.3 Possibility of hazardous reactions Reacts with strong alkalis to release ammonia

10.4 Conditions to Avoid: Store away from heat

10.5 Incompatible materials: strong oxidising agents.

10.6 Hazardous Decomposition Products:

Decomposes at high temperatures producing toxic nitrogen and sulphur oxide fumes.

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD/LC50 values that are relevant for classification:
Oral LD_{50} ferrous sulphate 7720-78-7: 1389 mg/kg (rat)
Oral LD_{50} aluminium sulphate 10043-01-3: >2000 mg/kg (rat)
Dermal LD_{50} aluminium sulphate 10043-01-3:>2000 mg/kg (rat)

Primary irritant effect for Ferrous sulphate:

skin: ferrous sulphate 7720-78-7	OECD 404: Irritant for skin and mucous membranes
aluminium sulphate 10043-01-3:	no signs of dermal irritation
eye: ferrous sulphate 7720-78-7	OECD 405: Irritant effect.
eye: aluminium sulphate 10043-01-3:	OECD 405: Causes serious eye damage.

Sensitization: OECD 429 (LLNA-test); No sensitizing effects.

Subacute to chronic toxicity:
Data of the Key Studies for iron sulphates and iron chlorides:

Oral NOAEL ferrous sulphate 7720-78-7	57 - 65 mg Fe/kg/d (rat, 90 days) (not according to OECD)
Dermal NOAEL	no relevant data available
Inhalative NOAEC	no relevant data available

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
There are no indications of CMR effects.

Specific target organ toxicity (STOT)
No specific target organ toxicity according to the criteria defined in Regulation (EC) No. 1272/2008.

Aspiration hazard No data, not an aspiration hazard.

Acute toxicity (by calculation) > 5000 mg/kg.

To the best of our knowledge physical, chemical and toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: not classified as hazardous.

aluminium sulphate 10043-01-3:
LC50 Danio ≥1000mg/l 96hrs
NOEL Danio ≥1000mg/l 96hrs
EC50 Daphnia ≥160mg/l 48hrs immobilisation
NOEL Daphnia ≥160mg/l 48hrs

12.2 Persistence and degradability: no data
12.3 Bioaccumulative potential: no data
12.4 Mobility in soil: no data.
12.5 Results of PBT and vPvB: not classified.
12.6 Other adverse data: no data

Aluminium, iron, nitrogen and sulphur are important plant nutrients and can be found in significant quantities in some soils. Unlikely to present an environmental hazard from normal handling use

13. DISPOSAL CONSIDERATIONS

Disposal route should not permit contamination of groundwater.

13.1 Waste treatment methods: Dispose of waste through a reputable waste disposal contractor in accordance with the Environmental Protection Act 1990.

14. TRANSPORT INFORMATION

14.1 UN-Number
ADR, IMDG, IATA : Not applicable.
14.2 UN proper shipping name
ADR, IMDG, lATA: Not applicable.
14.3 Transport hazard class(es)
ADR, IMDG, lATA

Class:	Not applicable.
14.4 Packaging Group	
ADR, IMDG, lATA:	Not applicable.
14.5 Environmental hazards:	Not a marine pollutant.
14.6 Special precautions for user	None

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

Not applicable.

15. REGULATORY INFORMATION

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

This substance is classified and labelled in accordance with regulation 1999/45/EC, 1272/2008, the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations and the EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety Assessment not undertaken for this material

16. OTHER INFORMATION

Reason for revision:	MSDS re-formatted in-line with regulation 453/2010 all sections affected.
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 VITAX LTD, for Health and Safety purposes from the best knowledge available at the time of printing.