

According to EC Regulations No. 453/2010 (REACH), 1272/2008 (CLP) & 453/2010

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name PLUS SEQUESTERED IRON  
Product code XPSI61L, XPSI2XL  
REACH registration No. Not applicable

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

Identified use(s) Use as a fertiliser for professional and domestic foliar and soil applications  
Uses advised against Not suitable for human consumption

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

Supplier name: Valagro UK Ltd  
Supplier address: Valagro UK Ltd  
P.O. Box 6027  
Corby  
NN17 1ZH  
  
Supplier telephone: +44 (0) 8700 115117  
Email: sales.uk@valagro.co.uk

**1.4. Emergency telephone number**

Emergency phone No. +44 (0) 7779 781813 (GMT English spoken, Mon-Fri – 08:00 – 17:00)

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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

2.1.1. Regulation (EC) No.1272/2008 (CLP) Not classified for supply

**2.2. Label elements****Labelling according Regulation (EC) No 1272/2008 [CLP]**

CLP Hazard Pictograms: No applicable hazard pictogram  
Signal Word(s): No Signal Word  
Hazard Statements: Not classified for supply  
Precautionary Statements: Not classified for supply, however optional precautionary statements have been applied  
  
P101 If medical advice is needed, have product container or label at hand  
P103 Read label before use  
P264 Wash hands thoroughly after handling  
P280 Wear eye 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  
P337 + P313 If eye irritation persists: Get medical advice/attention

**2.3. Other hazards** This product has not been tested for PBT or vPvB

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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

EC Classification No 1272/2008

Hazardous ingredient(s)	%w/w	CAS no	EC no	REACH Registration no	H statements
Ferrous sulphate heptahydrate	5 – <10%	7720-78-7	231-753-5	01-2119513203-57-####	H302, H315, H319

No hazardous materials are present at a concentration threshold that triggers a classification under this regulation

This product contains seaweed extracts processed from natural sources and macronutrients from mineral sources

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### 4.1.1. First aid instructions.

If inhaled:	Move person into fresh air, rest and seek medical advice
If on skin (or hair):	Wash affected skin with water. Wash clothes before reuse
If in eyes:	Wash affected eyes for several minutes under running water with eyelids held open. Remove contact lenses if possible. Seek medical advice if irritation persists
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth and throat. Do not induce vomiting. Drink 1-2 glasses of water. Consult a physician if feeling unwell
Other first aid advice:	If vomiting occurs spontaneously, keep airways clear. Give more water when vomiting stops

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

If inhaled:	Inhalation of mist or vapours may cause irritation of mucous membranes and upper respiratory tract. Symptoms may include irritation, coughing and tightness of breath
If on skin (or hair):	Where not washed exposure may result in redness and irritation. Irritation may occur to skin if already sore or dry according to contact time
If in eyes:	Exposure to eyes will result in immediate pain and tearing
If swallowed:	On ingestion of a moderate quantity (150 ml or ~6 fluid oz) symptoms usually occur within twenty minutes and may include nausea, vomiting, diarrhoea and abdominal pain. Symptoms of iron toxicity may occur hours after ingestion and can include rapid heartbeat and shock

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

Medical treatment: Treat for iron toxicity, desferrioxamine is considered as a chelation therapy in appropriate situations. This product contains a high sodium salt content

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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media: All extinguishing agents permitted

Unsuitable extinguishing media: None known

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

Hazardous combustion products: Oxides of iron, sodium, carbon, nitrogen and sulphur

Other special hazards during fire: None known

**5.3. Advice for firefighters**

Protective actions during firefighting: Wear self-containing breathing apparatus

Special protective equipment for firefighters: No special instructions

Other advice: Not applicable

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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Non-emergency personnel PPE See section 8.2

Emergency responders PPE See section 8.2

Controlling risks from accidental release: Avoid contact with strong oxidising agents

Emergency procedures: Evacuate personnel to safe areas.

**6.2. Environmental precautions**

Keep accidental releases away from: Drains, water courses, soil and open ground. Discharge to ground, water courses or drains can cause eutrophication

**6.3. Methods and material for containment and cleaning up**

Containing a spill: Mop up and contain with absorbent materials

Cleaning up a spill: Mop spills, recycle where possible

Other information on spill handling: Dilute with water, capture with absorbent material. Recycle where possible

**6.4. Reference to other sections**

References to other sections: See section 8.2 for personal protective equipment. See section 13.1 for disposal considerations

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Safe handling recommendations: Wash hands and exposed skin before meals and after use. Where gloves when handling the product over long periods of time

Handling incompatibles: Do not use strong oxidising agents or alkalis

Reducing environmental risk: Do not discharge into drains or water courses

Occupational hygiene advice: Wash hands after using this product and before eating, drinking or smoking. Remove contaminated clothing before entering eating areas

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

#### **Safe storage: managing risks during storage:**

Explosive atmospheres formed during storage: Not applicable

Corrosive conditions during storage: Not applicable

Flammability hazards during storage: Not applicable

Incompatible substances or mixtures: Incompatible with oxidising agents, acids and alkalis

Evaporative conditions: Not applicable

Potential ignition sources, including electrical equipment: Not applicable

#### **Safe storage: controlling effects of ambient conditions:**

Weather conditions: Do not store outside uncontained

Ambient pressure: Not applicable

Temperature: Do not allow product to freeze or exceed 30°C

Sunlight: Keep out of direct sunlight

Humidity: Not applicable

Vibration: Not applicable

#### **Safe storage: maintaining the integrity of the product:**

Stabilisers: Stabilisers are not used in this product

Antioxidants: Antioxidants are not used in this product

#### **Safe storage: other advice:**

Ventilation requirements for storage: No specific ventilation requirements

Specific designs for storage rooms or vessels: No specific design criteria on storage areas apart from normal regulatory requirements for substances of this type

Quantity limits under storage conditions: Not applicable

Suitable packaging for the substance: Keep in original container, may be corrosive to aluminium, copper and iron

### 7.3. Specific end use(s)

Uses: Use as a fertiliser for professional and domestic foliar and soil applications

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure limits:

Current workplace exposure limits assigned to individual components according to HSE document EH40/2005

Substance	CAS number	Workplace Exposure Limit				Comments
		Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15 minute reference period)		
		ppm	mg.m <sup>-3</sup>	ppm	mg.m <sup>-3</sup>	
Iron Salts	-	-	1.0	-	2.0	The Carc, Sen and Sk notations are not exhaustive. Notations have been applied to the substances identified in IOELV Directives

8.1.2 Biological Limit Values: Not applicable

8.1.3 Current recommended monitoring procedures: Not applicable

8.1.4 Air contaminants formed when using the product as intended: Not applicable

8.1.5. PNECs and DNELs Not applicable

### 8.2. Exposure controls

8.2.1. Appropriate engineering controls: Handle in accordance with good industrial hygiene

#### 8.2.2. Personal Protection Equipment

Eye protection: Use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Face protection: Not required

Hand protection: It is recommended that where this product is to be handled for an extended period; nitrile, latex or rubber gloves, which satisfy the specifications of EU Directive 89/686/EEC and the standard EN420 derived from it are worn

Other skin protection Do not wear open footwear

Respiratory protection Not required

Thermal hazards Not required

8.2.3. Environmental exposure controls Do not release substance to drains or surface water

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Brown liquid
Physical state:	Liquid
Colour:	Dark brown
Odour:	Slightly sweet
Odour threshold:	Data not available
pH:	5.0 – 5.5
Melting point:	Data not available
Freezing point:	<0°C
Initial boiling point:	>100°C
Boiling range:	Data not available
Flash point:	Data not available
Flash point method:	Data not available
Evaporation rate:	Data not available
Flammability (if solid or gas):	Data not available
Upper and lower flammability or explosive limits:	Data not available
Vapour pressure:	Data not available
Vapour density:	Data not available
Relative density:	1.10 – 1.13 g/cm <sup>3</sup> (at 20°C)
Solubility(ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available
Explosive properties	Data not available

Oxidising properties Data not available

9.2. Other information Data not available

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**SECTION 10: Stability and reactivity**

<b>10.1. Reactivity</b>	Can react with strong oxidising agents, acids and alkalis
<b>10.2. Chemical stability</b>	Product is stable under anticipated storage and handling conditions
<b>10.3. Possibility of hazardous reactions</b>	Substance not known to react and/or polymerise
<b>10.4. Conditions to avoid</b>	Excessive heat (to water boiling point), mixing with acids and alkalis
<b>10.5. Incompatible materials</b>	Oxidising, acids and alkalis
<b>10.6. Hazardous decomposition products</b>	No known hazardous decomposition products known

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**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Data supplied for iron(II) sulphate heptahydrate;

Acute toxicity	Oral - LD50 >2,000 mg/kg body weight
Skin corrosion/irritation	Dermal - LD50 >2,000 mg/kg body weight
Serious eye damage/irritation	The product is not classified as irritating to eyes
Respiratory or skin sensitisation	Iron(II) sulphate heptahydrate is not known to be sensitising
Germ cell mutagenicity	Data not available
Carcinogenicity	Data not available
Reproductive toxicity	Data not available
STOT-repeated exposure;	Data not available
<b>11.2. Other information</b>	No other information

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**SECTION 12: Ecological information****12.1. Toxicity**

No specific data available. The mixture is not classified as an environmental hazard.

<b>12.2. Persistence and degradability</b>	Data not available
<b>12.3. Bioaccumulative potential</b>	Data not available
<b>12.4. Mobility in soil</b>	Data not available

**12.5. Results of PBT and vPvB assessment** Data not available

**12.6. Other adverse effects**

Environmental fate	Data not available
Photochemical ozone creation potential	Data not available
Ozone depletion potential	Data not available
Endocrine disrupting potential	Data not available
Global warming potential	Data not available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

This material, if discarded as produced, is not classified as a hazardous waste

Waste treatment containers to be used for product include IBCs or drums  
 Recycle material where possible. If heavily soiled or disposal judged as necessary dispose to landfill in accordance with the Directive on waste 2008/98/EC

No specific waste treatment containers to be used for contaminated packaging, packaging should be recycled where possible. Waste treatment method for contaminated packaging should include a rinse with water. Dilute washings should be recycled where possible

**SECTION 14: Transport information**

<b>14.1. UN number</b>	Not applicable	
<b>14.2. UN proper shipping name</b>	ADR/RID	Not dangerous goods
	IMDG	Not dangerous goods
	IATA	Not dangerous goods
<b>14.3. Transport hazard class(es)</b>	Not applicable	
<b>14.4. Packing group</b>	Not applicable	
<b>14.5. Environmental hazards</b>	Not applicable	
<b>14.6. Special precautions for user</b>	Not applicable	
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable	

**SECTION 15: Regulatory information**

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

Ozone depleting substance (EC No 2037/2000):	Not applicable
Persistent organic pollutants (EC No 850/2004)	Not applicable
Export and import of dangerous chemicals (EC No 689/2008)	Not applicable

COMAH/ Seveso II categories or named substance Not applicable

REACH Authorisations and/or Restrictions Not applicable

Any other relevant Safety, health and environmental regulations: Not applicable

15.2. Chemical safety assessment A chemical safety assessment has not been carried out for this product

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**SECTION 16: Other information**

## a) Changes made to SDS:

Section 1; logo and address change  
Section 2; CHIP elements removed  
Section 3; some material entries removed, CHIP elements removed  
Section 8; PPE recommendations amended

## b) Key (or legend)

IOELV            Indicative Occupational Exposure Limit Values  
LD50            Lethal Dosage affecting 50% of sample population  
TWA             Time Weighted Average

## c) Literature references

Data gathered for raw materials from European Chemicals Agency:  
<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>  
Data gathered for ferrous sulphate toxicity from The Royal Children's Hospital Melbourne  
[http://www.rch.org.au/clinicalguide/guideline\\_index/Iron\\_Poisoning/](http://www.rch.org.au/clinicalguide/guideline_index/Iron_Poisoning/)  
Last accessed (19/04/2017)  
Some physical properties reported from direct laboratory testing performed at Grotech Production Ltd  
Some data has been derived from constituent safety datasheets

## d) Details of relevant hazard information

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
P101	If medical advice is needed, have product container or label at hand
P103	Read label before use
P264	Wash hands thoroughly after handling
P280	Wear eye 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
P337 + P313	If eye irritation persists: Get medical advice/attention

## e) Appropriate training for workers

Training with breathing apparatus, spillage handling and chemical handling is recommended

## f) Classification method:

CLP classification