

**Pulsar**

ACCORDING TO UK-REGULATIONS

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product Name Pulsar  
Trade Name AF Pulsar  
CAS No. Not applicable.  
Registration number(s) Not known.

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

Identified Use(s) Fertiliser  
Uses Advised Against Not known.

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

Manufacturer  
Company Identification AIVA LTD (Aiva Fertiliser)  
Address of Manufacturer Old Farm Offices  
Manor Farm,  
Ginge,  
Oxfordshire,  
United Kingdom  
Postal code OX12 8QS  
Telephone: 01234 834 997  
Fax Not known.  
E-mail office@aivafertiliser.co.uk  
Office hours Office hours: Monday - Friday 0830 - 1700  
Supplier  
Company Identification AIVA LTD (Aiva Fertiliser)  
Address of Supplier Old Farm Offices  
Manor Farm,  
Ginge,  
Oxfordshire,  
United Kingdom  
Postal code OX12 8QS  
Telephone: 01234 834 997  
Fax Not known.  
E-mail office@aivafertiliser.co.uk  
Office hours Office hours: Monday - Friday 0830 - 1700

**1.4 Emergency telephone number**

Emergency Phone No. 01235834997  
Contact Call 111

**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

United Kingdom Regulations Not classified as dangerous for supply/use.

**2.2 Label elements**

According to UK-regulations

Product Name Pulsar

Hazard Pictogram(s) None.

Signal Word(s) None.

Hazard Statement(s) None.

Precautionary Statement(s) P101: If medical advice is needed, have product container or label at hand.  
P103: Read label before use.  
P264: Wash hands and exposed skin thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+P352: IF ON SKIN: Wash with plenty of water.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P340: Remove person to fresh air and keep comfortable for breathing.  
P501: Dispose of contents in accordance with local, state or national legislation.

**2.3 Other hazards**

EUH208: Contains: (Cobalt sulphate) May produce an allergic reaction.

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### 2.4 Additional Information

None.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable.

### 3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
manganese sulphate monohydrate	10034-96-5	918-733-8	<5	Eye Dam. 1 H318 STOT RE 2 H373 Aquatic Chronic 2 H411	GHS05 GHS08 GHS09
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate)	7446-19-7	231-793-3	<5	Acute Tox. 4 H302 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS05 GHS07 GHS09
boric acid	10043-35-3	233-139-2	<3	Repr. 1B H360FD	GHS08
copper sulphate	7758-98-7	231-847-6	<3	Acute Tox. 4 H302 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS05 GHS07 GHS09
citric acid	77-92-9	201-069-1	<2	Eye Irrit. 2 H319	GHS07
Cobalt sulphate	10026-24-1	600-050-9	<2	Acute Tox. 4 H302 Skin Sens. 1 H317 Resp. Sens. 1 H334 Muta. 2 H341 Carc. 1B H350 Repr. 1B H360 Aquatic Chronic 1 H410	GHS08 GHS07 GHS09
sodium molybdate	7631-95-0	231-551-7	<2	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335	GHS07

For full text of H/P Statements see section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact Wash skin with water.

Eye Contact Flush eyes with water for at least 15 minutes.

Ingestion Wash out mouth with water.

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

None anticipated. Treat symptomatically.

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

Unlikely to be required but if necessary treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.

Unsuitable extinguishing media None.

### 5.2 Special hazards arising from the substance or mixture

None anticipated. Heating may cause decomposition.

### 5.3 Advice for firefighters

As appropriate for surrounding fire.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear suitable gloves if prolonged skin contact is likely.

#### 6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

#### 6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material.

#### 6.4 Reference to other sections

See Also Section 8, 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

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

Storage temperature

Ambient. Protect from frost.

Storage life

Stable under normal conditions. Protect from sunlight.

Incompatible materials

None known.

#### 7.3 Specific end use(s)

Fertiliser

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### 8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Manganese and its inorganic compounds (as Mn) - Inhalable fraction	10034-96-5		0.2			
Manganese and its inorganic compounds (as Mn) - Respirable fraction	10034-96-5		0.05			
Copper and compounds: dust and mists (as Cu)	7758-98-7		1		2	
Cobalt and Cobalt compounds (as Co)	10026-24-1		0.1			(m), Sen
Molybdenum compounds (as Mo) soluble compounds	7631-95-0		5		10	

Region  
United Kingdom

Source  
UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark  
(m)  
Sen

Notes  
Carc, (cobalt dichloride and sulphate)  
Capable of causing occupational asthma.

#### 8.2 Exposure controls

8.2.1. Appropriate engineering controls Ensure adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Not normally required.

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Respiratory protection Normally no personal respiratory protection is necessary.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Do not release large quantities into the surface water or into drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Liquid. Colour : Blue
Odour	Not known.
Odour threshold	Not known.
pH	< 2.4.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	Not known.
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	1.15g/cm <sup>3</sup>
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

### 9.2 Other information

None.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

None anticipated.

### 10.2 Chemical Stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

### 10.4 Conditions to avoid

None anticipated.

### 10.5 Incompatible materials

Not known.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Low acute toxicity
Skin corrosion/irritation	Non-irritant
Serious eye damage/irritation	Non-irritant
Skin sensitization data	Not classified
Respiratory sensitization data	Not classified
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.

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Reproductive toxicity	Not classified
Lactation	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified
<b>11.2 Other information</b>	Not known.

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

#### 12.2 Persistence and degradability

Not known.

#### 12.3 Bioaccumulative potential

Not known.

#### 12.4 Mobility in soil

Not known.

#### 12.5 Results of PBT and vPvB assessment

Not known.

#### 12.6 Other adverse effects

Not known.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

Dispose at suitable refuse site.

#### 13.2 Additional Information

No special precautions are required for this product.

### SECTION 14: TRANSPORT INFORMATION

Not classified as hazardous for transport.

#### 14.1 UN number

Not applicable

#### 14.2 UN proper shipping name

Not applicable

#### 14.3 Transport hazard class(es)

Not applicable

#### 14.4 Packing group

Not applicable

#### 14.5 Environmental hazards

Not classified as a Marine Pollutant.

#### 14.6 Special precautions for user

Not known

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

Not known

### SECTION 15: REGULATORY INFORMATION

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

United Kingdom Regulations Not known.

##### National regulations

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very boric acid (10043-35-3)

High Concern for Authorisation

REACH: ANNEX XIV list of substances Not listed

subject to authorisation

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Toxic to reproduction: category 1B (10043-35-3), manganese sulphate monohydrate (10034-96-5), copper sulphate (7758-98-7), zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate) (7446-19-7), Cobalt sulphate (10026-24-1), citric acid (77-92-9), sodium molybdate (7631-95-0)

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Community Rolling Action Plan (CoRAP) Not listed  
 Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed  
 Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed  
 Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

### 15.2 Chemical Safety Assessment

United Kingdom

A REACH chemical safety assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

### LEGEND

Hazard Pictogram(s)	None.  GHS05: GHS: Corrosion GHS07: GHS: Exclamation mark GHS08: GHS: Health hazard GHS09: GHS: Environment
Hazard classification	Acute Tox. 4 : Acute toxicity, Category 4 Skin Irrit. 2 : Skin corrosion/irritation, Category 2 Skin Sens. 1 : Skin sensitization, Category 1 Eye Dam. 1 : Serious eye damage/irritation, Category 1 Eye Irrit. 2 : Serious eye damage/irritation, Category 2 Resp. Sens. 1 : Respiratory sensitization, Category 1 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3 Muta. 2 : Germ cell mutagenicity, Category 2 Carc. 1B : Carcinogenicity, Category 1B Repr. 1B : Reproductive toxicity, Category 1B Repr. 1B : Reproductive toxicity, Category 1B STOT RE 2 : Specific target organ toxicity — repeated exposure, Category 2 Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1 Aquatic Chronic 1 : Hazardous to the aquatic environment, Chronic, Category 1 Aquatic Chronic 2 : Hazardous to the aquatic environment, Chronic, Category 2
Hazard Statement(s)	H302: Harmful if swallowed. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H341: Suspected of causing genetic defects. H350: May cause cancer. H360: May damage fertility or the unborn child. H360FD: May damage fertility. May damage the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects. H411: Toxic to aquatic life with long lasting effects.
Precautionary Statement(s)	P101: If medical advice is needed, have product container or label at hand. P103: Read label before use. P264: Wash hands and exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear protective gloves/protective clothing/eye protection/face protection.

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P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+P352: IF ON SKIN: Wash with plenty of water.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P340: Remove person to fresh air and keep comfortable for breathing.  
P501: Dispose of contents in accordance with local, state or national legislation.

## Acronyms

ATE : Acute Toxicity Estimate  
CAS : Chemical Abstracts Service  
DNEL : Derived No Effect Level  
EC : European Community  
EINECS : European Inventory of Existing Commercial Chemical Substances  
LTEL : Long term exposure limit  
PBT : Persistent, Bioaccumulative and Toxic  
PNEC : Predicted No Effect Concentration  
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals  
STEL : Short term exposure limit  
STOT : Specific Target Organ Toxicity  
vPvB : very Persistent and very Bioaccumulative

Key literature references and sources for United Kingdom Regulations  
data used to compile the SDS

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