

Solstice

ACCORDING TO UK-REGULATIONS

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Solstice
 Trade Name AF Solstice
 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
 National response center
 Address NHS Direct
 Emergency Phone No. +44 111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

United Kingdom Regulations Skin Corr. 1 :Causes severe skin burns and eye damage.

2.2 Label elements

According to UK-regulations
 Product Name Solstice

Hazard Pictogram(s)



GHS05

Signal Word(s) Danger

Hazard Statement(s) H314: Causes severe skin burns and eye damage.

Precautionary Statement(s) P101: If medical advice is needed, have product container or label at hand.
 P103: Read label before use.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.

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P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338: 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/doctor.
 P321: Specific treatment (see Medical Advice on this label).
 P363: Wash contaminated clothing before reuse.
 P405: Store locked up.
 P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

None known.

2.4 Additional Information

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

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) |
|--|------------|---------------------------------|------|--|-------------------------|
| phosphoric acid ... %, orthophosphoric acid ... % | 7664-38-2 | 231-633-2 | <35 | Skin Corr. 1B H314 | GHS05 |
| boric acid | 10043-35-3 | 233-139-2 | <2 | Repr. 1B H360FD | GHS08 |
| manganese sulphate | 10034-96-5 | 232-089-9 | <2 | 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 | <2 | 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 | <1 | Eye Irrit. 2 H319 | GHS07 |

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

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Immediately call a POISON CENTER/doctor.
 Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
 Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
 Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media: As appropriate for surrounding fire.
 Unsuitable extinguishing media: None.

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5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

As appropriate for surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

This material and its container must be disposed of in a safe way.

6.3 Methods and material for containment and cleaning up

Absorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up.

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 ³) | STEL (ppm) | STEL (mg/m ³) | Note |
| Orthophosphoric acid | 7664-38-2 | | 1 | | 2 | |
| 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 | | | |

Region: United Kingdom
Source: UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark: Notes

8.2 Exposure controls

8.2.1. Appropriate engineering controls: Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).

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Respiratory protection Normally no personal respiratory protection is necessary.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|--|--|
| Appearance | Liquid. Colour : Not known. |
| Odour | Not known. |
| Odour threshold | Not known. |
| pH | < 1.8. |
| 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) | 1.25g/cm ³ |
| 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 |
| 11.2 Other information | 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 of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimor or incinerator. Dispose at suitable refuse site.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

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, Toxic to reproduction: category 1B (10043-35-3), phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2), manganese sulphate (10034-96-5), zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate) (7446-19-7), citric acid (77-92-

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mixtures and articles 9)
 Community Rolling Action Plan (CoRAP) Not listed
 Regulation (EC) N° 850/2004 of the Not listed
 European Parliament and of the Council
 on persistent organic pollutants
 Regulation (EC) N° 1005/2009 on Not listed
 substances that deplete the ozone layer
 Regulation (EU) N° 649/2012 of the Not listed
 European Parliament and of the Council
 concerning the export and import of
 hazardous chemicals

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)



GHS05

GHS07: GHS: Exclamation mark

GHS08: GHS: Health hazard

GHS09: GHS: Environment

Hazard classification

Acute Tox. 4 : Acute toxicity, Category 4
 Skin Corr. 1 : Skin corrosion/irritation, Category 1
 Skin Corr. 1B : Skin corrosion/irritation, Category 1B
 Eye Dam. 1 : Serious eye damage/irritation, Category 1
 Eye Irrit. 2 : Serious eye damage/irritation, Category 2
 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.
 H314: Causes severe skin burns and eye damage.
 H318: Causes serious eye damage.
 H319: Causes serious eye irritation.
 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.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
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 P305+P351+P338: 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/doctor.

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P321: Specific treatment (see Medical Advice on this label).
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
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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