

# SAFETY DATA SHEET

## STARTAL PLUS

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS # : HA313-A

Revision date: 2018-07-23

Format: EU

Version 1.01

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) HA313-A

Product Name STARTAL PLUS

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

Recommended Use: A fertilizer with micronutrients for use in agriculture and horticulture

Restrictions on use Use as recommended by the label.

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

Manufacturer FMC Agro Limited  
Rectors Lane  
Pentre  
Flintshire  
CH5 2DH  
United Kingdom  
Tel: + 44 (0) 1244 537370  
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point Tel: +44(0)1244 537370  
Email: fmc.agro.uk@fmc.com

#### 1.4. Emergency telephone number

Emergency telephone Tel: +44(0)1244 537370 (Office hours only)

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

Skin corrosion/irritation	Category 1 Sub-category B (H314)
EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.	

#### 2.2. Label elements

Hazard pictograms



**Signal Word**

Danger

**Hazard Statements**

H314 - Causes severe skin burns and eye damage

EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

**Precautionary Statements**

P260 - Do not breathe mist/vapors/spray.

P264 - Wash hands thoroughly after handling

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

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P501 - Dispose of contents/ container to an approved waste disposal plant

**2.3. Other hazards**

This product is not identified as a PBT/vPvB substance.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

The product is a mixture, not a substance.

**3.2 Mixtures**

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Phosphoric acid	231-633-2	7664-38-2	10-30	Skin Corr. 1B (H314)	01-2119485924-24-XXXX

**Additional Information**

Contains 1,2-Benzisothiazolin-3-one (CAS number 2634-33-5) at a level below the concentration limit for classification of the mixture as sensitising.

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Transfer to hospital for specialist examination.

**Skin Contact**

Immediately flush with plenty of water while removing contaminated clothing and/or shoes, and thoroughly wash with soap and water. Do not remove clothing if adhering to skin. Transfer to hospital if there are burns or symptoms of poisoning.

**Inhalation**

Remove person from exposure ensuring one's own safety while doing so. Call a poison control centre or doctor for treatment advice.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Drink 1 or 2 glasses of water. Immediately call a poison control center or doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. May cause an allergic reaction in individuals already sensitised to 1,2-Benzisothiazolin-3-one.

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

**Indication of immediate medical attention and special treatment needed, if necessary**

Eye bathing equipment should be available on the premises.

### **Section 5: FIREFIGHTING MEASURES**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

**Unsuitable extinguishing media**

No information available

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

Corrosive, Toxic fumes may be released in fire situations.

#### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear. Wear protective clothing to prevent contact with skin and eyes.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

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

**Personal Precautions**

For personal protection see section 8. Keep people away from and upwind of spill/leak. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Stop leak if you can do it without risk. In the case of large spills (1 ton or more), alert the appropriate authorities.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**For emergency responders**

Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

Keep material out of lakes, streams, ponds, and sewer drains. Contain the spillage using bunding.

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

**Methods for Containment**

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

**Methods for cleaning up**

Wash spillage site with large amounts of water. Pick up and transfer to properly labelled containers. Waste must be classified and labelled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

#### **6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

### **Section 7: HANDLING AND STORAGE**

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

**Handling**

Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

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

Protect from freezing. Store above 5°C. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

**7.3. Specific end use(s)****Specific Use(s)**

No data available.

**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

Chemical name	European Union	The United Kingdom	France	Spain	Germany
Phosphoric acid 7664-38-2	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	STEL 2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup>	TWA 0.2 ppm TWA 1 mg/m <sup>3</sup> STEL 0.5 ppm STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	-
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Phosphoric acid 7664-38-2	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 3 mg/m <sup>3</sup>	STEL 2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Phosphoric acid 7664-38-2	STEL 2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup>	SS-C** TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Engineering measures** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye/Face Protection** Tightly fitting safety goggles. Provide emergency on-site eyewash.

**Hand Protection** Gloves (acid resistant).

**Skin and Body Protection** Wear impervious gloves and/or clothing if needed to prevent contact with the material.

**Respiratory Protection** Not required under normal use.

**Environmental exposure controls** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical State** Liquid

Appearance	Liquid suspension
Odour	Characteristic
Colour	Dark brown
Odour threshold	No information available
pH	0.8 - 1.8
Melting point/freezing point	No information available
Boiling point/boiling range	No information available
Flash point	No information available
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapour pressure	No information available
Vapour density	No information available
Specific gravity	1.33 - 1.35
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidising properties	Non-oxidizing (by EC criteria)

## 9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available
K <sub>st</sub>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Stable under recommended storage conditions

### 10.2. Chemical stability

Stable under recommended storage conditions.

#### Explosion data

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

### 10.3. Possibility of hazardous reactions

#### **Hazardous polymerisation**

Hazardous polymerization does not occur.

#### **Hazardous reactions**

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

Heat.

### 10.5. Incompatible materials

Bases.

**10.6. Hazardous decomposition products**

May emit toxic fumes under fire conditions.

## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**LD50 Oral** > 5000 mg/kg (rat) (Calculated Estimated Acute Toxicity - EAT)

Chemical name	LD50 Oral	LD50 Dermal	Inhalation LC50
Phosphoric acid	> 2000 mg/kg (rat)	= 2740 mg/kg (rabbit)	> 850 mg/m <sup>3</sup> (rat) 1 h

**Skin corrosion/irritation** No information available.  
**Serious eye damage/eye irritation** No information available.  
**Sensitisation** No information available.  
**Mutagenicity** No information available.  
**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.

**Symptoms**

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. May cause an allergic reaction in individuals already sensitised to 1,2-Benzisothiazolin-3-one.

**Aspiration hazard**

No information available.

## Section 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

There is no data available for this product.

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil****Mobility in soil**

No information available.

**Mobility**

Soluble in water.

**12.5. Results of PBT and vPvB assessment**

This product is not identified as a PBT/vPvB substance.

**12.6. Other adverse effects**

No information available

## Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods****Waste from residues / unused products**

Transfer to a suitable container and arrange for collection by specialised disposal company. Alternatively, the product can be sent for water treatment. Diluted product and washings should also be sent for water treatment.

**Contaminated Packaging**

Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EWC Waste Disposal No**

02 01 08

**OTHER INFORMATION**

NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

## Section 14: TRANSPORT INFORMATION

**IMDG/IMO****14.1 UN/ID no**

UN1760

**14.2 Proper Shipping Name**

Corrosive liquid, n.o.s. (orthophosphoric acid)

**14.3 Hazard class**

8

**14.4 Packing Group**

III

**14.5 Marine Pollutant**

Not applicable

**Environmental Hazard**

No

**14.6 Special Provisions**

No special precautions

Tunnel code: E

Transport category: 3

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

This product is not transported in bulk containers.

**RID****14.1 UN/ID no**

UN1760

**14.2 Proper Shipping Name**

Corrosive liquid, n.o.s. (orthophosphoric acid)

**14.3 Hazard class**

8

**14.4 Packing Group**

III

**14.5 Environmental Hazard**

No

**14.6 Special Provisions**

No special precautions

Tunnel code: E

Transport category: 3

**ADR/RID**

14.1 UN/ID no UN1760  
14.2 Proper Shipping Name Corrosive liquid, n.o.s. (orthophosphoric acid)  
14.3 Hazard class 8  
14.4 Packing Group III  
14.5 Environmental Hazard No  
14.6 Special Provisions No special precautions  
Tunnel code: E  
Transport category: 3

**ICAO/IATA**

14.1 UN/ID no UN1760  
14.2 Proper Shipping Name Corrosive liquid, n.o.s. (orthophosphoric acid)  
14.3 Hazard class 8  
14.4 Packing Group III  
14.5 Environmental Hazard No  
14.6 Special Provisions No special precautions  
Tunnel code: E  
Transport category: 3

## Section 15: REGULATORY INFORMATION

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

**European Union****Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)  
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not Applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not Applicable

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Phosphoric acid 7664-38-2	X	X	X	X	X	X	X	X

**15.2. Chemical safety assessment**

A chemical safety assessment is not required to be included for this product.

## Section 16: OTHER INFORMATION

**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of R-phrases referred to under sections 2 and 3**

Not applicable



**Full text of H-Statements referred to under sections 2 and 3**

H314 - Causes severe skin burns and eye damage

EUH208 - May produce an allergic reaction

**Legend**

<b>ADR:</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS:</b>	CAS (Chemical Abstracts Service)
<b>Ceiling:</b>	Maximum limit value:
<b>DNEL:</b>	Derived No Effect Level (DNEL)
<b>EINECS:</b>	EINECS (European Inventory of Existing Chemical Substances)
<b>GHS:</b>	Globally Harmonised System (GHS)
<b>IATA:</b>	International Air Transport Association (IATA)
<b>ICAO:</b>	International Civil Aviation Organization
<b>IMDG:</b>	International Maritime Dangerous Goods (IMDG)
<b>LC50:</b>	LC50 (lethal concentration)
<b>LD50:</b>	LD50 (lethal dose)
<b>PBT:</b>	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
<b>RID:</b>	Regulations Concerning the International Transport of Dangerous Goods by Rail
<b>STEL:</b>	Short term exposure limit
<b>SVHC:</b>	SVHC: Substances of Very High Concern for Authorisation:
<b>TWA:</b>	time weighted average
<b>vPvB:</b>	very Persistent and very Bioaccumulative

**Revision date:** 2018-07-23**Reason for revision:** Format Change.**Disclaimer**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

**Prepared By**

FMC Corporation

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**End of Safety Data Sheet**