

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

### 1. IDENTIFICATION

**Product Identifier:** Valagro NUTRI ONE

**Other Means of Identification:** None

**Recommended Use of the Chemical and Restrictions on Use:** Fertiliser


**Details of Manufacturer or Importer:** Campbells Fertilisers Australasia  
18 Raymond Road, Laverton North, Victoria, 3026  
Phone: (03) 9931 2211  
Fax: (03) 9931 2201  
[www.campbellsfert.com.au](http://www.campbellsfert.com.au)

**Emergency Telephone Number:** (03) 9931 2211 (business hours only 8.30 am to 5.00 pm)  
0418 350 726 (after business hours)  
Poisons Information Centre 131126

### 2. HAZARD(S) IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Substance not classified as hazardous by Safe Work Australia (HCIS), however one ingredient is listed as hazardous (HCIS).

|                   |   |  |  |
|-------------------|---|--|--|
| Iron (II) sulfate | Acute toxicity cat 4<br>Eye irritation cat 2<br>Skin irritation cat 2 | H302 Harmful if swallowed<br>H319 Causes serious eye irritation<br>H315 Causes skin irritation | <br>GHS07 |
|-------------------|---|--|--|

EC regulation criteria 1272/2008 (CLP):

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP)

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Symbols:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request

**SAFETY DATA SHEET**  
**Valagro NUTRI ONE**

Date of Issue: December 2016

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None – PBT Substances: None

Other Hazards:

No other hazards

**3. COMPOSITION AND INFORMATION ON INGREDIENTS**

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and relation classification

| Component:                | CAS Number: | Proportion (%): |
|---------------------------|-------------|-----------------|
| iron (II) sulfate         | 7320-34-5   | 5 – 7           |
| Non hazardous ingredients |             | Up to 100       |

For full text of H-statements and R-phrases: see SECTION 16

**4. FIRST AID MEASURES**

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have – or are only even suspected of having – come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately with soap and plenty of water.

If irritation develops, get medical attention.

In case of eyes contact:

After contact with eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Never give anything by mouth to an unconscious; if person is conscious rinse mouth with water and then give plenty of water to drink. Do not induce vomiting unless instructed to do so by medical personnel. **OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.**

In case if Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

No data available for the mixture.

Possible symptoms that may occur:

Inhalation:

May cause irritation to the respiratory tract

Symptoms: cough, shortness of breath

Eyes and skin:

May cause irritation to skin and eyes according to the contact time with the product

Symptoms: redness, itching pain

Ingestion:

May cause irritation and gastrointestinal tract

The product dissolved in water or in presence of moisture, cause an acid reaction and if swallowed And cause irritation and burns of the mouth, throat and digestive tract.

Symptoms: vomiting, stomach pains

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

- 4.3. Indication of immediate medical attention and special treatment needed  
In case of accident unwellness, seek medical advice immediately (show directions for use or safety Data sheet if possible)  
Treatment:  
In case of incident seek medical advice showing the safety data sheet

### 5. FIRE FIGHTING MEASURES

- 5.1. Extinguished media  
Suitable extinguished media:  
Water.  
Carbon dioxide (CO<sub>2</sub>).  
Extinguished media which must not be used for safety reasons:  
None in particular.]
- 5.2. Special hazards arising from the substance or mixture  
Do not inhale explosion and combustion gasses.  
Burning produces heavy smoke containing nitrogen oxides (NO<sub>x</sub>), phosphorous oxides (PO<sub>x</sub>), Sulfur oxides (SO<sub>x</sub>)
- 5.3. Advice for firefighters  
Use suitable breathing apparatus, protective clothing, eye protection and gloves resistant to chemicals according to EN469.  
Collect contaminated fire extinguished water separately. This must not be discharged into drains  
Move undamaged containers from immediate hazards area if it can be done safely.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

### 6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures  
For non-emergency personnel:  
No action shall be taken involving any personal risk or without suitable training  
Wear protective clothes giving a total skin protection, gloves (e.g. P.V.C., neoprene or rubber) and safety glasses.  
Keep away from the affected area people not involved in emergency intervention.  
Ensure adequate ventilation.  
Alert the internal emergency team.  
For emergency responders:  
Wear protective clothes giving a total skin protection, gloves (e.g. P.V.C., neoprene or rubber) and safety glasses.  
See protective measures under point 7 and 8.  
Remove people to safety.
- 6.2. Environmental precautions  
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Dilute with water and retain contaminated wash water and dispose in authorized facilities or pick up in clean plastic labelled containers and reuse as fertilizer.  
In case of seepage into waterways, soil or sewage system inform authorities responsible.  
Material suitable for collecting: absorbent material, soil, sand  
Collect the product absorbed for example using shovel and broom  
In case of entry into waterways, soil or drains, inform the responsible authorities.
- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.  
Collect the product absorbed for example using shovel broom.
- 6.4. Reference to other sections

# SAFETY DATA SHEET

## Valagro NUTRI ONE



Date of Issue: December 2016

See also section 8 and 13

### 7. HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation for vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assume that there aren't any incompatible material residuals in the containers

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

#### 7.2. Conditions for safe storage, including and incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

Strong acid and bases, oxidizing and reducing agents

Instructions as regards strong promises

#### 7.3. Specific end use(s)

None in particular

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### 8.1. Control parameters

No occupation exposure limit available for the mixture

ACGIH (2003) : recommended value inhalable dust: TLV/TWAL 10 mg/m<sup>3</sup>

ACGIH (2003) : recommended value breathable dust : TLV/TWAL 3 mg/m<sup>3</sup>

Exposure limit Iron (Fe) – TWA:1 mg/m<sup>3</sup> soluble salts

Critical effect skin and respiratory tract irritation

Iron (II) sulfate CASL 7720-78-7

DNEL Exposure Limit Values

Consumer:

DNEL (oral) mg/Kg/day = 0.8 Assumes 24h/d exposure

DNEL (dermal) mg/Kg/day = 0.8 Assumes 24 h/d exposure

DNEL (inhalation) mg/m<sup>3</sup> = 1.4 Assumes 24 h/d exposure

Worker:

DNEL (oral) mg/Kg/day N.A. Assumes 8 h/d exposure

DNEL (skin) mg/Kg/day 1.6 Assumes 8 h/d exposure

DNEL (inhalation) mg/m<sup>3</sup> = 5.5 Assumes 8 h/d exposure

PNEC Exposure Limit Values

|  | Value |
|--|-------|
| PNEC <sub>sediment</sub> (g Fe/kg dwt) | 49.5  |
| PNEC soil (g/kg dwt)                   | 55    |
| PNEC <sub>stp</sub> (mg Fe/L)          | 500   |

#### 8.2. Exposure controls

Please observe the usual precautionary measures for handling of chemicals.

The personal protective equipment be compliant to the regulation UNI –En in force

Eye protection:

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

- Use close fitting safety goggles according to the standard EN 166, don't use eye lens
- Protection for skin:
  - Use close fitting safety goggles according to the standard EN 166
- Protection for hands:
  - Use protective gloves that provides comprehensive protection, e.g. P.V.V., neoprene or rubber according to EN 374
- Respiratory protection:
  - In case of dust generation, use anti-powder mask with P2 filters according to EN 149:2001.
  - The powder exposition limit must be respected
- Thermal Hazards:
  - Burning produces heavy smoke containing nitrogen oxides (NOx), phosphorous oxides (POx), Sulfur oxides (SOx)
- Environmental exposure controls:
  - None

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

- |  |  |
|--|--|
| Appearance and colour:                       | black microgranules  |
| Odour:                                       | Characteristic   |
| Odour threshold:                             | N.A.   |
| pH 1% at 20°C:                               | 4.0  |
| Melting point / freezing point:              | not applicable, solid  |
| Initial boiling point and boiling range:     | not applicable, solid  |
| Flash point:                                 | not applicable, solid  |
| Evaporating rate:                            | not applicable, solid  |
| Solid/ gas flammability or explosive limits: | N.A.   |
| Vapour density:                              | not applicable, solid  |
| Vapour pressure:                             | not applicable, solid  |
| Relative density:                            | N.A.   |
| Solubility in oil:                           | not soluble  |
| Partition coefficient (n-octanol/water):     | N.A.   |
| Auto-ignition temperature:                   | N.A.   |
| Decomposition temperature:                   | N.A.   |
| Viscosity:                                   | not applicable, solid  |
| Explosive properties:                        | not applicable, the product doesn't contain any explosive substances |
| Oxidizing properties:                        | not applicable, the product doesn't contain any explosive substances |

#### 9.2. Other information

- |                                      |                        |
|--------------------------------------|------------------------|
| Miscibility:                         | N.A.                   |
| Fat Solubility:                      | N.A.                   |
| Conductivity:                        | N.A.                   |
| Substance Group relevant properties: | N.A.                   |
| Apparent density:                    | 1,1 Kg/dm <sup>3</sup> |

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

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### 10. STABILITY AND REACTIVITY

#### 10.1. Reactivity

Stable under normal conditions of handling and storage.

#### 10.2. Chemical stability

Stable under normal conditions of handling and storage.

#### 10.3. Possibility of hazardous reactions.

The contact with alkaline substance can release ammonia.

#### 10.4. Conditions to avoid

Avoid high temperatures

#### 10.5. Incompatible materials

Strong acids Bases, oxidizing and reducing agents

#### 10.6 Hazardous decomposition products

At high temperatures and in case of fire nitrogen oxides (NO<sub>x</sub>), phosphorus oxides (PO<sub>x</sub>), Sulfur oxides (SO<sub>x</sub>).

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Toxicological information of mixture:

N.A.

Toxicological information of the main substance found in the mixture:

Iron sulfate CAS: 772—78-7

##### a) acute toxicity:

oral

Ferrous sulfate heptahydrate

Test OECD TG 401 and GLP

Rat LD50 mg Fe / kg bw > 400

LD50 mg salt / kg bw > 2000

Ref MHLW, Japan, 2003

Skin

LD50 > 2000 mg / kg bw

Inhalation:

N.A.

##### b) skin corrosion/irritation:

Iron sulphate solid

Test OECD TG 404 and GLP rabbit

Result: irritation

Skin Irrit. 2 H315

##### c) serious eye damage/irritation

Eye Irrit. 2 H219 Causes severe eye irritation

##### d) respiratory or skin sensation:

Skin: Not classified as a sensitizer

Respiratory system: N.A.

##### e) germ cell mutagenicity

Not classified as a mutagen

##### f) carcinogenicity

Not classified as a carcinogen

##### g) reproductive toxicity

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

|                              |     |                   |  |                   |
|------------------------------|-----|-------------------|--|-------------------|
| Iron sulfate<br>Heptahydrate | rat | Fertility NOAEL   | ≥1000 mg/kg body weight/day (≥200 mg Fe/kg bw/day) | MHLW, Japan, 2003 |
|                              | rat | Development NOAEL | ≥1000 mg/kg body weight/day (≥200 mg Fe/kg bw/day) | MHLW, Japan, 2003 |

- h) STOT-single exposure:  
N.A.
- i) STOT-repeated exposure:  
N.A.
- j) Aspiration hazards:  
N.A.

No data available for the mixture.

Most important symptoms and possible effects based on iron sulfate:

Inhalation:

May cause irritation to the respiratory tract

Cough, sore throat

Symptoms: cough, shortness breath

Eyes and skin:

May cause irritation to the gastrointestinal tract

The product dissolved in water or in presence of moisture cause an acid reaction and if swallowed can cause irritation and burns of the mouth, throat and digestive tract.

Symptoms: vomiting, stomach pains

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

The product, if released into the environment at high concentrations leads to the effects of eutrophication.

Iron sulfates CAS: 7720-78-7:

Short-term toxicity data for fish

| Iron salt         | Test organism                | Duration | Endpoints   | LC50 (mg/L) <sup>1</sup>   | Reliability | References                 |
|-------------------|------------------------------|----------|---|----------------------------|-------------|----------------------------|
| FeSO <sub>4</sub> | <i>Salvelinus fontinalis</i> | 96 h     | Survival (pH 5.5)<br>Survival (pH 6.0)<br>Survival (pH 7.0) | 0.41<br>0.48<br>1.8 (m.d.) | 2           | Decker and Menendez (1975) |

# SAFETY DATA SHEET

## Valagro NUTRI ONE

Date of Issue: December 2016

### Long-term toxicity data for fish:

| Iron salt   | Test organism                          | Duration  | Endpoints                    | NOEC (mg/L) <sup>1</sup> | LC50 (mg/L) <sup>1</sup> | Reliability | References                   |
|---|--|-----------|------------------------------|--------------------------|--------------------------|-------------|------------------------------|
| FeSO <sub>4</sub> .7H <sub>2</sub> O  | <i>Lampetra Fluciatis</i><br>(Lamprey) | 72 h      | Hatching                     | -                        | 1.1 (EC50)<br>(n.t)      | 2           | Mylynen <i>et al.</i> (1997) |
| FeSO <sub>4</sub> neutralised with Stoichiometric amount of calcium hydroxide | <i>Pimephales promelas</i>             | 12 months | Growth Hatch (at pH 6.9-7.2) | 0.24 (n.t)               | 1.5 (n.t)                | 2           | Smith <i>et al.</i> (1973)   |

### Short-term toxicity data for aquatic invertebrates

| Iron salt         | Test organism        | Duration | Endpoints           | LC50 (mg/L) <sup>1</sup> | Reliability | References                  |
|-------------------|----------------------|----------|---------------------|--------------------------|-------------|-----------------------------|
| FeSO <sub>4</sub> | <i>Daphnia magna</i> | 24 h     | Immobility (pH 7.6) | 5.3 (n.t)                | 2           | Lilius <i>et al.</i> (1995) |

### Chronic toxicity data for iron salts

| Iron salt                            | Test organism        | Duration | Endpoints                    | NOEC (mg/L) <sup>1</sup> | LC50 (mg/L) <sup>1</sup> | Reliability | References                 |
|--------------------------------------|----------------------|----------|------------------------------|--------------------------|--------------------------|-------------|----------------------------|
| FeSO <sub>4</sub> .7H <sub>2</sub> O | <i>Daphnia magna</i> | 21 days  | Reproduction (at pH 7.0-8.5) | 10 (n.ts)<br>2 (n.t)     | 13 (n.ts)<br>2.6 (n.t)   | 1           | Decker and Menendez (1975) |

#### 12.2. Persistence and degradability

N.A.

#### 12.3 Bioaccumulative potential

N.A.

#### 12.4. Mobility in soil

Soluble and mobile in both terrestrial and aquatic compartments

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

vPvB Substances: None – PBT Substances: None

#### 12.6. Other adverse effects

None known

### 13. DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Product: Recover if possible. In so doing, comply with the local and national regulation currently in Force.

Packaging: Dispose according to regulations.



# SAFETY DATA SHEET

## Valagro NUTRI ONE



Date of Issue: December 2016

### 14. TRANSPORT INFORMATION

- 14.1. UN number  
Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name  
N.A.
- 14.3. Transport hazard class(es)  
N.A.
- 14.4. Packing group  
N.A.
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
N.A.
- 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code  
N.A.

### 15. REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents to work)  
Dir. 2000/39/EC (Occupation exposure limit values)
- Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EC) 2015/830  
Regulation (EC) n. 286/2011 (ATP 2 CLP)  
Regulation (EC) n. 618/2012 (ATP 3 CLP)  
Regulation (EC) n. 487/2013 (ATP 4 CLP)  
Regulation (EC) n. 944/2013 (ATP 5 CLP)  
Regulation (EC) n. 605/2014 (ATP 6 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
Nope
- Where applications, refer to the following regulatory provisions:  
Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.  
Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):  
N.A.
- 15.2. Chemical safety assessment  
No

# SAFETY DATA SHEET

## Valagro NUTRI ONE



Date of Issue: December 2016

### 16. OTHER INFORMATION

Text or phrases referred to under heading 3:

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H302 Harmful if swallowed

This document was prepared by a competent who has received appropriate training.

Main bibliographic sources:

ECDIN – Environmental Chemicals Data and Information Network – Joint Research Centre,  
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS – Eight Edition – Van  
Nostrand Reinold

CCNL – Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces and preceding release.

Paragraphs modified from the previous revision: 1;2;3;4;6;7;8;9;10;11;12;13;14;15.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service (division of the American Chemical Society)

CLPL: Classification, Labelling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

HCIS Hazardous Chemical Information System

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instruction by the: International Civil Aviation Organization" (ICAO)

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients

KSt: Explosion coefficient.

LC50: Lethal dose, for 50 percent of test population.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.

STEL: Short Term Exposure limit

STOT: Specific Target Organ Toxicity

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.  
(ACGIH Standard).

N.A.: No data available