Based on GHS (rev 3) (2009)
- Australia

| | | |
|---|---|---|
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| **Version** | : | 2.1 |

# SAFETY DATA SHEET

**YaraTera CALCINIT**

## Section 1. Identification

| | | |
|---|---|---|
| **Product identifier** | : | YaraTera CALCINIT |
| **Product type** | : | solid (Granular solid.) |
| **Product code** | : | PA341G |

**Uses**

| | | |
|---|---|---|
| **Area of application** | : | Professional applications |
| **Material uses** | : | Fertilizers. |

**Supplier**

| | | |
|---|---|---|
| **Supplier's details** | : | Yara Australia Pty. Ltd. |

**Address**

| | | |
|---|---|---|
| **Street** | : | Level 1, 6 Holt Street |
| **Postal code** | : | 2060 |
| **City** | : | McMahons Point |
| **Country** | : | Australia |
| **Telephone number** | : | +61 2 9959 4266 |
| **Fax no.** | : | +61 2 9959 4050 |
| **e-mail address of person responsible for this SDS** | : | yaraasiapacific@yara.com |
| **Emergency telephone number (with hours of operation)** | : | +61 2801 44558 (7/24) |

**National advisory body/Poison Center**

| | | |
|---|---|---|
| **Name** | : | WA Poisons Information Centre |
| **Telephone number** | : | 131126 |
| **Hours of operation** | : | 24 hours, within Australia only |

## Section 2. Hazard(s) identification

**Classification and labelling have been performed following the guidelines and recommendation of GHS and the intended use.**

| | | |
|---|---|---|
| **Classification of the substance or mixture.** | : | ACUTE TOXICITY (oral) - Category 4<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |

**GHS label elements**

**Hazard pictograms** :

**Signal word** : HAZARDOUS

**Hazard statements** :

**Precautionary statements**

| | | | |
|---|---|---|---|
| **Prevention** | : | P280 | Wear protective gloves and eye protection. |
| | | P270 | Do not eat, drink or smoke when using this product. |
| | | P264-a | Wash hands thoroughly after handling. |
| **Response** | : | P305 | IF IN EYES: |
| | | P351 | Rinse cautiously with water for several minutes. |
| | | P338 | Remove contact lenses, if present and easy to do. Continue rinsing. |
| | | P310 | Immediately call a POISON CENTER or doctor/physician. |
| | | P301 | IF SWALLOWED: |
| | | P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| | | P330 | Rinse mouth. |

**Statement of hazardous/dangerous nature** : HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.

**Supplemental label elements** :

**Other hazards which do not result in classification** : Product forms slippery surface when combined with water.

# Section 3. Composition and ingredient information

**Substance/mixture** : Substance

**CAS number/other identifiers**

**Other means of identification** : Nitric acid, ammonium calcium salt
**CAS number** : 15245-12-2

| Ingredient name | CAS number | |
|---|---|---|
| Nitric acid, ammonium calcium salt | 15245-12-2 | 100 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**
**Occupational exposure limits, if available, are listed in Section 8.**

# Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open. Get medical attention

immediately.

**Inhalation** : Avoid breathing dust. If inhaled, remove to fresh air.

**Skin contact** : Wash with soap and water. Get medical attention if irritation develops.

**Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact** : Causes serious eye damage.

**Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : May be harmful in contact with skin.

**Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Over-exposure signs/symptoms**

**Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms include the following:
pain or irritation
redness
blistering may occur

**Ingestion** : Adverse symptoms may include the following:
stomach pains

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

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use flooding quantities of water for extinction.

| | | |
|---|---|---|
| **Unsuitable extinguishing media** | : | Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand. |
| **Specific hazards arising from the chemical** | : | No specific fire or explosion hazard. |
| **Hazardous thermal decomposition products** | : | These products are<br>nitrogen oxides<br>metal oxide/oxides |
| **Remark** | : | Non-flammable substance. |
| **Special protective actions for fire-fighters** | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| **Remark** | : | None. |

# Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

| | | |
|---|---|---|
| **For non-emergency personnel** | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| **For emergency responders** | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **Environmental precautions** | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

**Methods and materials for containment and cleaning up**

| | | |
|---|---|---|
| **Small spill** | : | Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Material free from contamination can be used for its original purpose. |
| **Large spill** | : | Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

# Section 7. Handling and storage

**Precautions for safe handling**

| | | |
|---|---|---|
| **Protective measures** | : | Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not |

ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Product forms slippery surface when combined with water.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store locked up. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep away from acids or bases. Keep away from: organic materials, oil and grease.

# Section 8. Exposure controls and personal protection

**Control parameters**

**Occupational exposure limits** : None.

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : A washing facility or water for eye and skin cleaning purposes should be present.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: Tightly-fitting goggles

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

| | | |
|---|---|---|
| | | > 8 hours (breakthrough time): Protective gloves should be worn under normal conditions of use., Viton®, neoprene |
| **Body protection** | : | Personal protective equipment for the body should be selected based on the task being performed and the risks involved. |
| **Respiratory protection** | : | In case of inadequate ventilation wear respiratory protection. Recommended: Approved/certified disposable particulate dust mask. |
| **Personal protective equipment (Pictograms)** | : |  |

## Section 9. Physical and chemical properties

**Appearance**

| | | |
|---|---|---|
| **Physical state** | : | solid [Granular solid.] |
| **Color** | : | White. |
| **Odor** | : | Odorless. |
| **Odor threshold** | : | Not determined. |
| **pH** | : | 5 - 7 [Conc.: 110 g/l] |
| **Melting/freezing point** | : | 400 °C |
| **Boiling/condensation point** | : | Not determined. |
| **Sublimation temperature** | : | Not determined. |
| **Flash point** | : | Not determined. |
| **Fire point** | : | Not determined. |
| **Evaporation rate** | : | Not determined. |
| **Flammability (solid, gas)** | : | Non-flammable. |
| **Lower and upper explosive (flammable) limits** | : | **Lower:** Not determined.<br>**Upper:** Not determined. |
| **Vapor pressure** | : | Not determined. |
| **Bulk density** | : | 1,100 kg/m3 |
| **Relative density** | : | 2.05 |
| **Solubility** | : | 100 g/l @ 20 °C(68 °F)<br>Easily soluble in the following materials:<br>cold water |
| **Solubility in water** | : | > 100 g/l |
| **Partition coefficient: n-octanol/water** | : | Not determined. |
| **Auto-ignition temperature** | : | Not determined. |
| **Decomposition temperature** | : | Not determined. |
| **Viscosity** | : | **Dynamic:** Not determined. |
| | : | **Kinematic:** Not determined. |
| **Explosive properties** | : | None. |
| **Oxidizing properties** | : | None |

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid contamination by any source including metals, dust and organic materials. Keep away from heat, sparks and flame. Store away from direct sunlight.

**Incompatible materials** : acids
alkalis
combustible materials
reducing materials
organic materials

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

## Information on toxicological effects

### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure | References |
|---|---|---|---|---|---|
| Nitric acid, ammonium calcium salt | | | | | |
| | LD50 Oral | Rat | 500 mg/kg OECD 423 | Not applicable. | IUCLID |
| | LD50 Dermal | Rat | 2,000 - 5,000 mg/kg OECD 402 | Not applicable. | |

**Conclusion/Summary** : Harmful if swallowed. May be harmful in contact with skin.

### Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation | References |
|---|---|---|---|---|---|---|
| Nitric acid, ammonium calcium salt | Eyes - Severe irritant OECD 405 | Rabbit | Not applicable. | 24 - 72 h | 21 d | IUCLID 5 |

**Conclusion/Summary**

**Skin** : No known significant effects or critical hazards.

**Eyes** : Causes serious eye damage.

**Respiratory** : No known significant effects or critical hazards.

### Sensitization

**Conclusion/Summary**

**Skin** : Not sensitizing

**Respiratory** : Not determined.

**Mutagenicity**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Carcinogenicity**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Reproductive toxicity**

| Product/ingredient name | Maternal toxicity | Fertility | Development toxin | Species | Dose | Exposure | References |
|---|---|---|---|---|---|---|---|
| Nitric acid, ammonium calcium salt | Negative | Negative | Negative | Rat | Oral: 1500 mg/kg OECD 422 | 53 days | IUCLID 5 |

**Conclusion/Summary** : No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure)**

No known significant effects or critical hazards.

**Specific target organ toxicity (repeated exposure)**

No known significant effects or critical hazards.

**Aspiration hazard**

No known significant effects or critical hazards.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : Causes serious eye damage.

**Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : May be harmful in contact with skin.

**Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms include the following:
pain or irritation
redness
blistering may occur

**Ingestion** : Adverse symptoms may include the following:
stomach pains

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.
**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.
**Potential delayed effects** : Not available.

**Potential chronic health effects**

| Product/ingredient name | Result | Species | Dose | Exposure | References |
|---|---|---|---|---|---|
| Nitric acid, ammonium calcium salt | NOAEL Oral | Rat | > 1,000 mg/kg OECD 407 | 28days | IUCLID 5 |

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Effects on or via lactation** : No known significant effects or critical hazards.

**Other effects** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms include the following:
pain or irritation
redness
blistering may occur

**Ingestion** : Adverse symptoms may include the following:
stomach pains

**Target organs** : Not available.

**Numerical measures of toxicity**

**Acute toxicity estimates**

Not available.

# Section 12. Ecological information

**Toxicity**

| Product/ingredient name | Result | Species | Exposure | References |
|---|---|---|---|---|
| Nitric acid, ammonium calcium salt | | | | |
| | Acute LC50 447 mg/l Fresh water | Fish | 48 h | IUCLID 5 |
| | Acute EC50 > 100 mg/l Fresh water OECD 202 | Daphnia | 48 h | IUCLID 5 |
| | Acute LC50 > 100 mg/l Fresh water OECD 201 | Algae | 72 h | IUCLID 5 |
| | Acute EC50 > 1,000 mg/l Activated sludge OECD 209 | Activated sludge | 3 h | IUCLID 5 |

**Conclusion/Summary** : No known significant effects or critical hazards.

**Persistence and degradability**

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Nitric acid, ammonium calcium salt | | | |
| | Not applicable. | Not applicable. | Readily |

**Conclusion/Summary** : Readily biodegradable in plants and soils.

**Bioaccumulative potential**

| Product/ingredient name | LogPow | BCF | Potential |
|---|---|---|---|
| Nitric acid, ammonium calcium salt | < 0 | Not applicable. | low |

**Conclusion/Summary** : No known significant effects or critical hazards.

**Mobility in soil**

**Soil/water partition coefficient (KOC)** : < 1

**Mobility** : This product may move with surface or groundwater flows because its water solubility is: high

**Other adverse effects** : No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimized

wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Empty the bag by shaking to remove as much as possible of its contents. Empty bags may be disposed of as non-hazardous material or returned for recycling. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# Section 14. Transport information

| **Regulation: ADG** | |
|---|---|
| **14.1 UN number** | Not available. |
| **14.2 UN proper shipping name** | Not applicable. |
| **14.3 Transport hazard class(es)** | Not available. |
| **14.4 Packing group** | Not applicable. |
| **14.5 Environmental hazards** | No. |
| **Additional information** | |

| **Regulation: ADR/RID** | |
|---|---|
| **14.1 UN number** | Not regulated. |
| **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** | No. |
| **Additional information** | |

| **Regulation: IMDG** | |
|---|---|
| **14.1 UN number** | Not regulated. |
| **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** | No. |
| **Additional information** | |
| **Marine pollutant** | **:** Not available. |

| | |
|---|---|
| **Regulation: IATA** | |
| **14.1 UN number** | Not regulated. |
| **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** | No. |
| **Additional information** | |
| **Marine pollutant** | **:** No. |

**14.6 Special precautions for user** : Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**IMSBC**

**Bulk cargo shipping name** : CALCIUM NITRATE FERTILIZER
**Class** : Not applicable.
**Group** : C
**Marpol V** : Non-HME

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not applicable.

# Section 15. Regulatory information

**Standard Uniform Schedule of Medicine and Poisons**

Not regulated.

**Model Work Health and Safety Regulations - Scheduled Substances**

No listed substance

**Inventory list**

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
**Korea inventory:** All components are listed or exempted.
**Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.
**Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.
**United States inventory (TSCA 8b):** All components are listed or exempted.
**EC INVENTORY (EINECS/ELINCS):** All components are listed or exempted.

# Section 16. Any other relevant information

**Key to abbreviations** : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
bw = Body weight
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NOHSC - National Occupational Health and Safety Commission
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| ACUTE TOXICITY (oral) - Category 4 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 | Calculation method |

**History**

| | | |
|---|---|---|
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| **Version** | : | 2.1 |
| **Prepared by** | : | Yara Chemical Compliance (YCC). |

|| Indicates information that has changed from previously issued version.

**Notice to reader**

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