

Australian statement of hazardous nature : Classified as hazardous according to criteria of Safe Work Australia

## Section 1 - Identification

**Product Name** Iron 1000ppm single element std

**Product Code** AJA2629, AJA2638, ACR19605, ROA0701A, ROA0702, ROA1900, SPXPLFE2-3X

**Address** ThermoFisher Scientific Australia Pty Ltd  
5 Caribbean Drive, Scoresby  
VICTORIA 3179, Australia

**Emergency Tel.** CHEMTREC®  
03 9757 4559 or +613 9757 4559

**Telephone / Fax Numbers** Tel: 1300 735 292  
Fax: 1800 067 639

**E-mail address** [auinfo@thermofisher.com](mailto:auinfo@thermofisher.com)

**Recommended Use** Laboratory chemicals.

## Section 2 - Hazard(s) Identification

### Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

#### Physical hazards

No hazards identified

#### Health hazards

Skin Corrosion/Irritation  
Serious Eye Damage/Eye Irritation  
Skin Sensitization

Category 1 A  
Category 1  
Category 1

#### Environmental hazards

No hazards identified

### Label Elements



Exclamation Mark



Corrosion

**Signal Word** **Danger**

**Hazard Statements**

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

**Precautionary Statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

P362 - Take off contaminated clothing and wash before reuse

P403 - Store in a well-ventilated place

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

**Other information**

No information available

**Section 3 - Composition and Information on Ingredients**

| Component        | CAS-No     | Weight % |
|------------------|------------|----------|
| Water            | 7732-18-5  | Balance  |
| Nitric Acid, 69% | 7697-37-2  | 0.1-1    |
| Ferric nitrate   | 10421-48-4 | 0.1-1    |

**Section 4 - First Aid Measures****Inhalation**

If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

**Ingestion**

Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Self-Protection of the First Aider**

No special precautions required.

**First Aid Facilities**

Eyewash, safety shower and washroom.

**Most important symptoms and effects**

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Notes to Physician**

Treat symptomatically.

**Section 5 - Fire Fighting Measures****Suitable Extinguishing Media**CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

**Special protective equipment and precautions for fire fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**Section 6 - Accidental Release Measures****Emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental Precautions**

Should not be released into the environment.

**Methods for Containment and Clean Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

**Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

**Section 7 - Handling and Storage****Precautions for Safe Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

**Conditions for Safe Storage, Including any Incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

**Section 8 - Exposure Controls and Personal Protection****Exposure limits****AUS** - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)]

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]

updated in August, 2005. Safe Work Australia **ACGIH** - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace. **UK** - EH40/2005 Work Exposure Limits, Third edition. Published 2018. **DE** - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

| Component        | Australia   | New Zealand WEL   | ACGIH TLV                 | The United Kingdom  | Germany  |
|------------------|---|---|---------------------------|---|--|
| Nitric Acid, 69% | STEL: 4 ppm<br>STEL: 10 mg/m <sup>3</sup><br>TWA: 2 ppm<br>TWA: 5.2 mg/m <sup>3</sup> | TWA: 2 ppm<br>TWA: 5.2 mg/m <sup>3</sup><br>STEL: 4 ppm<br>STEL: 10 mg/m <sup>3</sup> | TWA: 2 ppm<br>STEL: 4 ppm | STEL: 1 ppm 15 min<br>STEL: 2.6 mg/m <sup>3</sup> 15 min          | TWA: 1 ppm (8 Stunden). AGW -<br>TWA: 2.6 mg/m <sup>3</sup> (8 Stunden). AGW - |
| Ferric nitrate   | TWA: 1 mg/m <sup>3</sup>  |   | TWA: 1 mg/m <sup>3</sup>  | STEL: 2 mg/m <sup>3</sup> 15 min<br>TWA: 1 mg/m <sup>3</sup> 8 hr |  |

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### Exposure Controls Engineering Measures

None under normal use conditions. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

#### Eye Protection

Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

#### Hand Protection

Protective gloves

| Glove material | Breakthrough time                 | Glove thickness | AUS/NZ Standard | Glove comments        |
|----------------|-----------------------------------|-----------------|-----------------|-----------------------|
| Natural rubber | See manufacturers recommendations | -               | AS/NZS 2161.1   | (minimum requirement) |
| Nitrile rubber |                                   |                 |                 |                       |
| Neoprene       |                                   |                 |                 |                       |
| PVC            |                                   |                 |                 |                       |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

#### Skin and body protection

Long sleeved clothing

#### Respiratory Protection

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

#### Recommended Filter type:

Particle filter Particulates filter conforming to EN 143 (or AUS/NZ equivalent)

#### Recommended half mask:-

Particle filtering: EN149:2001 (or AUS/NZ equivalent)

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

### Environmental exposure controls

No information available.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

|                                 |                          |  |
|---------------------------------|--------------------------|--|
| <b>Appearance</b>               | Colorless                |  |
| <b>Physical State</b>           | Liquid                   |  |
| <b>Odor</b>                     | No information available |  |
| <b>Odor Threshold</b>           | No data available        |  |
| <b>pH</b>                       | No information available | 1  |
| <b>Melting Point/Range</b>      | 0 °C / 32 °F             |  |
| <b>Softening Point</b>          | No data available        |  |
| <b>Boiling Point/Range</b>      | 100 °C / 212 °F          |  |
| <b>Flash Point</b>              | Not applicable           | <b>Method -</b> No information available |
| <b>Evaporation Rate</b>         | No data available        |  |
| <b>Flammability (solid,gas)</b> | Not applicable           | Liquid                                   |
| <b>Explosion Limits</b>         | No data available        |  |

|   |                          |             |
|---|--------------------------|-------------|
| Vapor Pressure                          | No data available        |             |
| Vapor Density                           | No data available        | (Air = 1.0) |
| Specific Gravity / Density              | No data available        |             |
| Bulk Density                            | Not applicable           | Liquid      |
| Water Solubility                        | Soluble in water         |             |
| Solubility in other solvents            | No information available |             |
| Partition Coefficient (n-octanol/water) |                          |             |
| Component                               | <b>log Pow</b>           |             |
| Nitric Acid, 69%                        | -2.3                     |             |
| Autoignition Temperature                | No data available        |             |
| Decomposition Temperature               | No data available        |             |
| Viscosity                               | No data available        |             |
| Explosive Properties                    | No information available |             |
| Oxidizing Properties                    | No information available |             |

Other information**Section 10 - Stability and Reactivity**

**Reactivity** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products, Excess heat.

**Hazardous Decomposition Products** None under normal use conditions.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Section 11 - Toxicological Information****Information on Toxicological Effects****Product Information****(a) acute toxicity;**

|                   |  |
|-------------------|--|
| <b>Oral</b>       | Based on available data, the classification criteria are not met |
| <b>Dermal</b>     | No data available  |
| <b>Inhalation</b> | No data available  |

**Toxicology data for the components**

| Component        | LD50 Oral               | LD50 Dermal | LC50 Inhalation   |
|------------------|-------------------------|-------------|---|
| Water            | LD50 > 90 mL/kg ( Rat ) |             |   |
| Nitric Acid, 69% |                         |             | LC50 = 2500 ppm ( Rat ) 1 h<br>LC50 = 130 mg/m <sup>3</sup> ( Rat ) 4 h |

**(b) skin corrosion/irritation;** Category 1 A

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**

|                    |                   |
|--------------------|-------------------|
| <b>Respiratory</b> | No data available |
| <b>Skin</b>        | Sub-category 1A   |

No information available

|                             |   |
|-----------------------------|---|
| (e) germ cell mutagenicity; | No data available   |
| (f) carcinogenicity;        | No data available   |
| (g) reproductive toxicity;  | There are no known carcinogenic chemicals in this product |
| (h) STOT-single exposure;   | No data available   |
| (i) STOT-repeated exposure; | No data available   |
| Target Organs               | No information available.                                 |
| (j) aspiration hazard;      | No data available   |

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

## Section 12 - Ecological Information

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

| Component        | Freshwater Fish                            | Water Flea | Freshwater Algae | Microtox |
|------------------|--|------------|------------------|----------|
| Nitric Acid, 69% | LC50: = 72 mg/L, 96h<br>(Gambusia affinis) |            |                  |          |
| Ferric nitrate   | LC50: = 20 mg/L, 96h<br>(Morone saxatilis) |            |                  |          |

### Persistence and Degradability

#### Persistence

Soluble in water, Persistence is unlikely, based on information available.

#### Bioaccumulative Potential

Bioaccumulation is unlikely

| Component        | log Pow | Bioconcentration factor (BCF) |
|------------------|---------|-------------------------------|
| Nitric Acid, 69% | -2.3    | No data available             |

#### Mobility

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility Highly mobile in soils

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

#### Persistent Organic Pollutant

This product does not contain any known or suspected substance

#### Ozone Depletion Potential

This product does not contain any known or suspected substance

## Section 13 - Disposal Considerations

### Waste from Residues/Unused Products

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

### Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Solutions with low pH-value must be neutralized before discharge. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer. Large amounts will affect pH and harm aquatic organisms.

## Section 14 - Transport Information

### IMDG/IMO

UN-No UN3264  
 Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.  
 Technical Shipping Name contains Nitric acid  
 Hazard Class 8  
 Packing Group III

**ADG**

UN-No UN3264  
 Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.  
 Technical Shipping Name contains Nitric acid  
 Hazard Class 8  
 Packing Group III

| Component                               | Hazchem Code    |
|---|-----------------|
| Nitric Acid, 69%<br>7697-37-2 ( 0.1-1 ) | 2R<br>2P<br>2PE |
| Ferric nitrate<br>10421-48-4 ( 0.1-1 )  | 1Z              |

**IATA**

UN-No UN3264  
 Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.  
 Technical Shipping Name contains Nitric acid  
 Hazard Class 8  
 Packing Group III

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

## Section 15 - Regulatory Information

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

International Inventories X = listed

| Component        | AICS | NZIoC | EINECS    | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | IECSC | KECL         |
|------------------|------|-------|-----------|--------|------|-----|------|-------|------|-------|--------------|
| Water            | X    | X     | 231-791-2 | -      | X    | X   | -    | X     | X    | X     | KE-3540<br>0 |
| Nitric Acid, 69% | X    | X     | 231-714-2 | -      | X    | X   | -    | X     | X    | X     | KE-2591<br>1 |
| Ferric nitrate   | X    | X     | 233-899-5 | -      | X    | X   | -    | X     | X    | X     | KE-2113<br>6 |

### Standard for the Uniform Scheduling of Medicines and Poisons

| Component        | Standard for the Uniform Scheduling of Medicines and Poisons   | Health Surveillance |
|------------------|--|---------------------|
| Nitric Acid, 69% | Schedule 5 listed - except its salts and derivatives; in preparations except in preparations containing $\leq 0.5\%$ of Nitric acid<br>Schedule 6 listed - except its salts and derivatives; except when included in Schedule 5, or in preparations containing $\leq 0.5\%$ of Nitric acid |                     |
| Ferric nitrate   | Schedule 2 listed<br>Schedule 4 listed - in injectable preparations for human use<br>Schedule 5 listed - for the treatment of  |                     |

|  |   |  |
|--|---|--|
|  | <p>animals except up to 1% of Iron oxides when present as an excipient;in preparations for injection except in preparations containing &lt;=0.1% of Iron</p> <p>Schedule 5 listed - for the treatment of animals except up to 1% of Iron oxides when present as an excipient;in other preparations except in liquid or gel preparations containing &lt;=0.1% of Iron, or in animal feeds or feed premixes</p> <p>Schedule 5 listed - In garden preparations except in preparations containing &lt;=4% of Iron</p> <p>Schedule 6 listed - except up to 1% of Iron oxides when present as an excipient. For the treatment of animals except: when included in Schedule 5, in liquid or gel preparations containing &lt;=0.1% of Iron, or in animal feeds or feed premixes</p> |  |
|--|---|--|

**Prohibition or notification/licensing requirements** Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

## Section 16 - Other Information

### Legend

|  |  |
|--|--|
| <b>AICS</b> - Australian Inventory of Chemical Substances  | <b>NZIoC</b> - New Zealand Inventory of Chemicals  |
| <b>TSCA</b> - United States Toxic Substances Control Act Section 8(b) Inventory                      | <b>EINECS/ELINCS</b> - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances |
| <b>DSL/NDSL</b> - Canadian Domestic Substances List/Non-Domestic Substances List                     | <b>ENCS</b> - Japanese Existing and New Chemical Substances  |
| <b>IECSC</b> - Chinese Inventory of Existing Chemical Substances                                     | <b>KECL</b> - Korean Existing and Evaluated Chemical Substances  |
| <b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances                            | <b>CAS</b> - Chemical Abstracts Service  |
| <b>TWA</b> - Time Weighted Average   | <b>ACGIH</b> - American Conference of Governmental Industrial Hygienists Predicted No Effect Concentration (PNEC)            |
| <b>IARC</b> - International Agency for Research on Cancer  | <b>IMO/IMDG</b> - International Maritime Organization/International Maritime Dangerous Goods Code                            |
| <b>ICAO/IATA</b> - International Civil Aviation Organization/International Air Transport Association | <b>ADG</b> Australian Code for the Transport of Dangerous Goods by Road and Rail   |
| <b>MARPOL</b> - International Convention for the Prevention of Pollution from Ships                  | <b>OECD</b> - Organisation for Economic Co-operation and Development   |
| <b>NZS 5433:2012</b> - Transport of Dangerous Goods on Land  | <b>LC50</b> - Lethal Concentration 50%   |
| <b>LD50</b> - Lethal Dose 50%  | <b>ATE</b> - Acute Toxicity Estimate   |
| <b>EC50</b> - Effective Concentration 50%  | <b>RPE</b> - Respiratory Protective Equipment  |
| <b>WEL</b> - Workplace Exposure Limit  | <b>NOEC</b> - No Observed Effect Concentration   |
| <b>DNEL</b> - Derived No Effect Level  | <b>BCF</b> - Bioconcentration factor   |
| <b>POW</b> - Partition coefficient Octanol:Water   | <b>PBT</b> - Persistent, Bioaccumulative, Toxic  |
| <b>vPvB</b> - very Persistent, very Bioaccumulative  |  |
| <b>VOC</b> (volatile organic compound)   |  |

### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

|                              |                       |
|------------------------------|-----------------------|
| <b>Physical hazards</b>      | On basis of test data |
| <b>Health Hazards</b>        | Calculation method    |
| <b>Environmental hazards</b> | Calculation method    |

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

|                         |                 |
|-------------------------|-----------------|
| <b>Revision Date</b>    | 04-Jul-2020     |
| <b>Revision Summary</b> | Not applicable. |

**This safety data sheet complies with the requirements of Safe Work Australia WHS**



**Regulation**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**