



# SAFETY DATA SHEET VITAMIN A ACETATE 1000 REVISION 4, DATE 28 FEB 20

## 1. IDENTIFICATION

Product Name	Vitamin A Acetate 1000
Other Names	No Data Available
Uses	Vitamins; Used for food fortification and feed additives. Restricted to professional users.
Chemical Family	No Data Available
Chemical Formula	C <sub>22</sub> H <sub>32</sub> O <sub>2</sub>
Chemical Name	Vitamin A acetate in Gelatin
Product Description	No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



## Globally Harmonised System

<b>Hazard Classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Hazard Categories</b>	Toxic To Reproduction - Category 1B Long-term Hazard To The Aquatic Environment - Category 4

## Pictograms



**Signal Word** Danger

**Hazard Statements**

<b>H413</b>	May cause long lasting harmful effects to aquatic life.
<b>H360D</b>	May damage the unborn child.

<b>Precautionary Statements</b>	Prevention	<b>P201</b>	Obtain special instructions before use.
		<b>P273</b>	Avoid release to the environment.
		<b>P281</b>	Use personal protective equipment as required.
	Response	<b>P308 + P313</b>	IF exposed or concerned: Get medical advice/ attention.
	Storage	<b>P405</b>	Store locked up.
	Disposal	<b>P501</b>	Dispose of contents/container in accordance with local / regional / national / international regulations.

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Vitamin A, acetate	C22H32O2	127-47-9	35.7 - 39.2 %
Gelatin	Unspecified	9000-70-8	30 - 35 %
Corn starch	Unspecified	9005-25-8	12 - 17 %
Glucose	Unspecified	5996-10-1	7 - 9 %
Ethoxyquin	C14H19NO	91-53-2	2 - 4 %
Silicon dioxide	SiO2	7631-86-9	0 - 0.5 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

**Swallowed** IF SWALLOWED: Rinse mouth thoroughly, then drink plenty of water. Get immediate medical advice/attention. Never give

anything by mouth to an unconscious person.

<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	If exposed or concerned, get medical advice/attention. Treat symptomatically.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
<b>Flammability Conditions</b>	Combustible; May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use dry chemical, Carbon dioxide (CO <sub>2</sub> ), foam or water spray for extinction.
<b>Fire and Explosion Hazard</b>	Avoid generating dust; Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Hazardous Products of Combustion</b>	Fire may produce irritating, toxic and/or corrosive fumes, including Carbon oxides.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
<b>Personal Protective Equipment</b>	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
<b>Flash Point</b>	93 °C
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Collect material (take up mechanically) and place in suitable containers for disposal (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Prevent entry into drains and waterways.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8).

## 7. HANDLING AND STORAGE

Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

<b>Handling</b>	adequate ventilation. Obtain special instructions before use - Do not handle until all safety precautions have been read and understood. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). WARNING! May form combustible dust concentrations in air (during processing). Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from extreme heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.
<b>Container</b>	Keep in the original container.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: <ul style="list-style-type: none"><li>- Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m<sup>3</sup> (measured as inhalable dust).</li><li>- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m<sup>3</sup>; TWA = 3 mg/m<sup>3</sup> (respirable dust).</li></ul> COMPONENT: Silicon dioxide (CAS No. 7631-86-9): <ul style="list-style-type: none"><li>- Safe Work Australia Exposure Standard: TWA = 2 mg/m<sup>3</sup> (respirable dust).</li></ul>
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
<b>Personal Protection Equipment</b>	<ul style="list-style-type: none"><li>- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate filter respirator (refer to AS/NZS 1715 &amp; 1716).</li><li>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses.</li><li>- Hand protection: Handle with gloves. Recommended: Protective gloves, e.g. nitrile, rubber.</li><li>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Normal chemical work clothing.</li></ul>
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Microcapsule
<b>Odour</b>	No information available.
<b>Colour</b>	Brownish-yellow to brownish
<b>pH</b>	No Data Available
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	57 - 59 °C
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Insoluble in water
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	93 °C
<b>Auto Ignition Temp</b>	No Data Available

<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	328.49 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	100% passing through No.20 (US) Sieve
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No information available.
<b>Potential for Dust Explosion</b>	Avoid generating dust; Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Combustible; May burn but does not ignite readily.
<b>Reactions That Release Gases or Vapours</b>	Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	No information available.
<b>Chemical Stability</b>	Stable under normal handling and storage conditions.
<b>Conditions to Avoid</b>	Avoid generating dust. Keep away from extreme heat and sources of ignition.
<b>Materials to Avoid</b>	Incompatible/reactive with strong oxidising agents, strong acids, strong bases.
<b>Hazardous Decomposition Products</b>	Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides.
<b>Hazardous Polymerisation</b>	No information available.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<ul style="list-style-type: none"> <li>- Acute toxicity: Low acute toxicity hazard. COMPONENT: Ethoxyquin (CAS No. 91-53-2) is Harmful if swallowed.</li> <li>- Skin corrosion/irritation: May cause mild skin irritation.</li> </ul>
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- Eye damage/irritation: May cause eye irritation.
- Respiratory/skin sensitisation: No information available.
- Germ cell mutagenicity: No information available.
- Carcinogenicity: No information available.
- Reproductive toxicity: May damage the unborn child (Vitamin A, acetate).
- STOT (single exposure): Inhalation of dust may cause respiratory irritation.
- STOT (repeated exposure): No information available.
- Aspiration toxicity: No information available.

**Acute****Ingestion**

Acute toxicity (Oral):  
- Acute toxicity estimate (ATE): >2,000 mg/kg [Supplier's SDS].

**Carcinogen Category**

None

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

No information available.

**Persistence/Degradability**

Not readily biodegradable (Vitamin A, acetate).

**Mobility**

No information available.

**Environmental Fate**

May cause long lasting harmful effects to aquatic life - Avoid release to the environment.

**Bioaccumulation Potential**

No information available.

**Environmental Impact**

No Data Available

**13. DISPOSAL CONSIDERATIONS****General Information**

Dispose of contents/container in accordance with local/regional/national regulations.

**Special Precautions for Land Fill**

No information available.

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

**Proper Shipping Name**

Vitamin A Acetate 1000

**Class**

No Data Available

**Subsidiary Risk(s)**

No Data Available

No Data Available

**UN Number**

No Data Available

**Hazchem**

No Data Available

**Pack Group**

No Data Available

**Special Provision**

No Data Available

**Comments**

NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

## SAFETY DATA SHEET VITAMIN A ACETATE 1000 REVISION 4, DATE 28 FEB 20

<b>Proper Shipping Name</b>	Vitamin A Acetate 1000
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	Vitamin A Acetate 1000
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	Vitamin A Acetate 1000
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	Vitamin A Acetate 1000
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for SEA transport.

**Air Transport**

IATA DGR

<b>Proper Shipping Name</b>	Vitamin A Acetate 1000
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for AIR transport.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

<b>Dangerous Goods Classification</b>	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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**15. REGULATORY INFORMATION**

<b>General Information</b>	No Data Available
<b>Poisons Schedule (Aust)</b>	Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

<b>Approval Code</b>	Not Assessed
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**National/Regional Inventories**

<b>Australia (AIIIC)</b>	Listed
<b>Canada (DSL)</b>	Not Determined
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Not Determined
<b>Europe (EINECS)</b>	204-844-2
<b>Europe (REACH)</b>	Not Determined
<b>Japan (ENCS/METI)</b>	Not Determined
<b>Korea (KECI)</b>	Not Determined
<b>Malaysia (EHS Register)</b>	Not Determined
<b>New Zealand (NZIoC)</b>	Listed
<b>Philippines (PICCS)</b>	Not Determined

Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Listed

## 16. OTHER INFORMATION

Related Product Codes	VITAAA1000, VITAAA1001, VITAAA1002, VITAAA1003, VITAAA1004, VITAAA1005, VITAAA1006, VITAAA1007, VITAAA1008, VITAAA1009, VITAAA1010, VITAAA1011, VITAAA1012, VITAAA1013, VITAAA1100, VITAAA1400, VITAAA1401, VITAAA1500, VITAAA1600, VITAAA2000, VITAAA2500, VITAAA3000, VITAAA4000, VITAAA5000, VITAAA5001, VITAAD1000, VITAAD1001, VITAAD1002, VITAAD3500, VITAAD5000
Revision	4
Revision Date	28 Feb 2020
Key/Legend	<p>&lt; Less Than</p> <p>&gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances</p> <p><b>atm</b> Atmosphere</p> <p><b>CAS</b> Chemical Abstracts Service (Registry Number)</p> <p><b>cm<sup>2</sup></b> Square Centimetres</p> <p><b>CO<sub>2</sub></b> Carbon Dioxide</p> <p><b>COD</b> Chemical Oxygen Demand</p> <p><b>deg C (°C)</b> Degrees Celcius</p> <p><b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand</p> <p><b>deg F (°F)</b> Degrees Farenheit</p> <p><b>g</b> Grams</p> <p><b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre</p> <p><b>g/l</b> Grams per Litre</p> <p><b>HSNO</b> Hazardous Substance and New Organism</p> <p><b>IDLH</b> Immediately Dangerous to Life and Health</p> <p><b>immiscible</b> Liquids are insoluable in each other.</p> <p><b>inHg</b> Inch of Mercury</p> <p><b>inH<sub>2</sub>O</b> Inch of Water</p> <p><b>K</b> Kelvin</p> <p><b>kg</b> Kilogram</p> <p><b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre</p> <p><b>lb</b> Pound</p> <p><b>LC50</b> LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.</p> <p><b>LD50</b> LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.</p> <p><b>ltr or L</b> Litre</p> <p><b>m<sup>3</sup></b> Cubic Metre</p> <p><b>mbar</b> Millibar</p> <p><b>mg</b> Milligram</p> <p><b>mg/24H</b> Milligrams per 24 Hours</p> <p><b>mg/kg</b> Milligrams per Kilogram</p> <p><b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre</p> <p><b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present.</p> <p><b>mm</b> Millimetre</p> <p><b>mmH<sub>2</sub>O</b> Millimetres of Water</p> <p><b>mPa.s</b> Millipascals per Second</p> <p><b>N/A</b> Not Applicable</p> <p><b>NIOSH</b> National Institute for Occupational Safety and Health</p> <p><b>NOHSC</b> National Occupational Heath and Safety Commission</p> <p><b>OECD</b> Organisation for Economic Co-operation and Development</p>

**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight