

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Vitamin B6, hydrochloride</b>
<b>Other Names</b>	Pyridoxine, hydrochloride; Pyridoxol, hydrochloride; Vitamin B6, HCl
<b>Uses</b>	Active pharmaceutical ingredient, nutritional ingredient, feed additive.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	C8H11NO3.HCl
<b>Chemical Name</b>	3,4-Pyridinedimethanol, 5-hydroxy-6-methyl-, hydrochloride
<b>Product Description</b>	No Data Available

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

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty 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

**Hazard Classification** NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Signal Word** None

### National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & 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)

### Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

**HSNO Classifications** Health Hazards **6.1E** Substances that are acutely toxic –May be harmful, Aspiration hazard

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Pyridoxine hydrochloride	C8H11NO3.HCl	58-56-0	<=100 %

## 4. FIRST AID MEASURES

### Description of necessary measures according to routes of exposure

<b>Swallowed</b>	If swallowed: Rinse mouth with water. Call a Poison Centre or doctor/physician if a large amount has been ingested or if you feel unwell.
<b>Eye</b>	Eye contact: 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>	Skin contact: Remove material from skin promptly. Flush skin with running water for several minutes - 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. Apply resuscitation if victim is not breathing. Administer oxygen if breathing is difficult. Call a Poison Centre or doctor/physician if experiencing respiratory symptoms or if you feel unwell.
<b>Advice to Doctor</b>	Treat symptomatically. Show this SDS to the doctor in attendance.
<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 flooding quantities of water until well after fire is out.
<b>Flammability Conditions</b>	Non-combustible solid.
<b>Extinguishing Media</b>	In case of fire: Use water spray, foam, dry chemical or Carbon dioxide for extinction. Use fire-extinguishing media appropriate for surrounding materials.
<b>Fire and Explosion Hazard</b>	No unusual fire or explosion hazards.

<b>Hazardous Products of Combustion</b>	Fire may produce irritating and/or toxic fumes, including: Carbon oxides, Nitrogen oxides, Sulphur oxides and Hydrogen chloride gas.
<b>Special Fire Fighting Instructions</b>	No information available.
<b>Personal Protective Equipment</b>	Wear self contained breathing apparatus and structural firefighting protective clothing as necessary.
<b>Flash Point</b>	No Data Available
<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. Do not touch or walk through spilled material. Avoid breathing dust. Avoid contact with eyes and skin.
<b>Clean Up Procedures</b>	Sweep up/shovel or vacuum material and place into suitable, closed containers for disposal. Avoid dust formation.
<b>Containment</b>	Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
<b>Decontamination</b>	Clean surface thoroughly to remove residual contamination.
<b>Environmental Precautionary Measures</b>	Avoid release to the environment. Do NOT let product enter drains or waterways.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Safety showers and eyewash fountains should be provided within the immediate work area. Ensure adequate ventilation - Provide appropriate exhaust ventilation at places where dust is formed. Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid breathing dust/aerosols. Avoid contact with eyes and skin. Wear personal protective clothing/equipment (see SECTION 8).
<b>Storage</b>	Store in a cool, dry and well-ventilated place. Keep container tightly closed. Protect from sunlight. Keep away from incompatible materials (strong oxidising agents, alkaline solutions, Iron salts).
<b>Container</b>	Keep in the original container.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	Contains no substances with occupational exposure limit values. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m <sup>3</sup> (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m <sup>3</sup> (total); TWA = 3 mg/m <sup>3</sup> (respirable). - OSHA PEL (Particulates not otherwise regulated): TWA = 15 mg/m <sup>3</sup> (total); TWA = 5 mg/m <sup>3</sup> (respirable).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Personal Protection Equipment</b>	Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended filter type: For protection from nuisance particulates, use type P1 dust mask. Use respirators and components tested and approved under appropriate government standards. Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.

Hand protection: Handle with gloves. Recommended (Full/splash contact): Nitrile rubber (Minimum thickness: 0.11 mm; Break through time: 480 min).

Skin/body protection: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Recommended: Cloth lab-coat (for laboratory scale quantities); Where significant quantities are handled, work clothing may be necessary to prevent take-home contamination.

**Special Hazards Precautions** No information available.

**Work Hygienic Practices** Wash hands before breaks and at the end of the workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder
<b>Odour</b>	Characteristic, nut-like
<b>Colour</b>	White or almost white
<b>pH</b>	2.4 - 3 (5% aqueous solution)
<b>Vapour Pressure</b>	<0.0000001 kPa (@ 25 °C)
<b>Relative Vapour Density</b>	7.1
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	205 - 212 °C (decomposes)
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Freely soluble in water - Slightly soluble in alcohol; Insoluble in ether
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	No Data Available
<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>	205.64 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<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 Data Available
<b>Potential for Dust Explosion</b>	No information available.
<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>	Non-combustible solid. No unusual fire or explosion hazards.

<b>Reactions That Release Gases or Vapours</b>	Fire/thermal decomposition may produce irritating and/or toxic fumes, including: Carbon oxides, Nitrogen oxides, Sulphur oxides and Hydrogen chloride gas.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended storage and handling conditions.
<b>Conditions to Avoid</b>	Avoid dust formation.
<b>Materials to Avoid</b>	Incompatible with strong oxidising agents, alkaline solutions and Iron salts.
<b>Hazardous Decomposition Products</b>	Fire/thermal decomposition may produce irritating and/or toxic fumes, including: Carbon oxides, Nitrogen oxides, Sulphur oxides and Hydrogen chloride gas.
<b>Hazardous Polymerisation</b>	Does not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<p>Acute toxicity: Based on available data, the classification criteria are not met.</p> <p>Skin corrosion/irritation: No information available.</p> <p>Eye damage/irritation: No information available.</p> <p>Respiratory/skin sensitisation: No information available.</p> <p>Germ cell mutagenicity: S. typhimurium Ames assay, Result: Negative.</p> <p>Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>Reproductive toxicity: Due to lack of data the classification is not possible.</p> <p>STOT - single exposure: Due to lack of data the classification is not possible.</p> <p>STOT - repeated exposure: Due to lack of data the classification is not possible.</p> <p>Aspiration toxicity: Based on available data, the classification criteria are not met.</p>
<b>Acute</b>	
<b>Ingestion</b>	<p>Acute toxicity (Oral):</p> <ul style="list-style-type: none"> <li>- LD50, Rat: 4,000 mg/kg</li> <li>- LD50, Mouse: 5,500 mg/kg</li> </ul>
<b>Carcinogen Category</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Toxicity to Algae: EC50, Desmodesmus subspicatus (Scenedesmus subspicatus): 5.3 mg/l (72 h) [OECD Test Guideline 201].
<b>Persistence/Degradability</b>	Readily biodegradable (94 %) [OECD Test Guideline 301].
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Avoid release to the environment. Do NOT let product enter drains or waterways.
<b>Bioaccumulation Potential</b>	Bioaccumulation is not to be expected (Log Pow <=4).
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of contents/container in accordance with local/regional/national regulations. Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
<b>Special Precautions for Land Fill</b>	Contaminated packaging: Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

### Land Transport (Malaysia)

ADR Code

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

### Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

## Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

## Air Transport

IATA DGR

<b>Proper Shipping Name</b>	Vitamin B6, hydrochloride
<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

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & 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>	HSR003771
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## National/Regional Inventories

<b>Australia (AICS)</b>	Listed
<b>Canada (DSL)</b>	Not Determined
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Not Determined
<b>Europe (EINECS)</b>	Not Determined

<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
<b>Switzerland (Giftliste 1)</b>	Not Determined
<b>Switzerland (Inventory of Notified Substances)</b>	Not Determined
<b>Taiwan (NCSR)</b>	Not Determined
<b>USA (TSCA)</b>	Not Determined

## 16. OTHER INFORMATION

<b>Related Product Codes</b>	VITBFH1000, VITBFH1001, VITBFH1002, VITBFH1003, VITBFH1004, VITBFH1005, VITBFH1006, VITBFH1007, VITBFH1008, VITBFH1009, VITBFH1010, VITBFH1011, VITBFH1012, VITBFH1013, VITBFH1014, VITBFH1015, VITBFH1016, VITBFH1017, VITBFH1100, VITBFH1600, VITBFH2000, VITBFH2001, VITBFH2002, VITBFH3000, VITBFH6000, VITBFP0100, VITBFP1000, VITBFP1001, VITBFP1002, VITBFP1003, VITBFP1004, VITBFP1005, VITBFP1006, VITBFP1100, VITBFP2000, VITBFP2100, VITBFP3000, VITBFP3001, VITBFP4000, VITBFP4100, VITBFP4101, VITBFP4102, VITBFP6000, VITBFP6100, VITBFP6200
<b>Revision</b>	3
<b>Revision Date</b>	01 Mar 2017
<b>Key/Legend</b>	<p>&lt; Less Than &gt; Greater Than  <b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <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.  <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.  <b>ltr</b> or <b>L</b> Litre  <b>m<sup>3</sup></b> Cubic Metre  <b>mbar</b> Millibar  <b>mg</b> Milligram  <b>mg/24H</b> Milligrams per 24 Hours  <b>mg/kg</b> Milligrams per Kilogram  <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre  <b>Misc</b> or <b>Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component</p>



present.

**mm** Millimetre

**mmH<sub>2</sub>O** Millimetres of Water

**mPa.s** Millipascals per Second

**N/A** Not Applicable

**NIOSH** National Institute for Occupational Safety and Health

**NOHSC** National Occupational Health and Safety Commission

**OECD** Organisation for Economic Co-operation and Development

**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