

Infosafe No™ 3CH8R	Issue Date : January 2022	RE-ISSUED by CHEMSUPP
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Product Name **VITAMIN B2**

Not classified as hazardous

Section 1 - Identification

Product Identifier VITAMIN B2

Company Name CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

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SA 5013 Australia

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E-mail Address www.chemsupply.com.au

Recommended use of the chemical and restrictions on use Food additive, Ingredient for pharmaceutical products.

Other Names	<u>Name</u>	<u>Product Code</u>
	VITAMIN B2	VP008
	7,8-dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl) isoalloxazine	
	Riboflavin	

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture Classified as non-Hazardous according to the 7th Edition Globally Harmonised System of classification and labelling of Chemicals (GHS7) including Work, Health and Safety regulations, Australia.
Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Section 3 - Composition and Information on Ingredients

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Riboflavin	83-88-5	98-100 %

Section 4 - First Aid Measures

Inhalation Move to fresh air in case of accidental inhalation of dust or fumes from over heating or combustion. If symptoms persist, seek medical attention.

Ingestion Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

Skin Take of contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

Eye Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

First Aid Facilities Maintain eyewash fountain and safety shower in work area.

Advice to Doctor Treat symptomatically.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126;

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New Zealand 0800 764 766) or a doctor.

Section 5 - Firefighting Measures

Suitable Extinguishing Media Suitable extinguishing media - foam and water.

Specific Hazards Arising from the Chemical Consider dust explosion hazard.

Decomposition Temperature 280 °C (melting point)

Precautions in connection with Fire In the event of fire, wear self-contained breathing apparatus.

Other Information Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6 - Accidental Release Measures

Spills & Disposal Sweep up and shovel.

Personal Protection Wear protective clothing specified for normal operations (see Section 8)

Section 7 - Handling and Storage

Precautions for Safe Handling Avoid generation or accumulation of dusts. Use in well ventilated areas away from all ignition sources. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities Keep container tightly closed and in a cool, well-ventilated place Keep away from direct sunlight

Storage Temperatures Store at room temperature (15 to 25 °C recommended).

Other Information No decomposition if stored and applied as directed.

Section 8 - Exposure Controls and Personal Protection

Other Exposure Information A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.

Engineering Controls In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory Protection Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.

Eye and Face Protection The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Hand Protection Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body Protection Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hygiene Measures Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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Section 9 - Physical and Chemical Properties

Form	Solid
Appearance	Yellow to yellow-orange free flowing powder.
Odour	Odourless.
Decomposition Temperature	280 °C (melting point)
Solubility in Water	0.16 g/l (@ 37 °C); 0,085 g/l (@ 25 °C)
Solubility in Organic Solvents	Soluble in the following solvents: Hydrochloric acid 0.1 N: 0.18 g/l (37 °C); Ethanol: 0.045 g/l (27.5 °C) Insoluble in Ether and Acetone.
pH	pH 6 (saturated aqueous solution)
Vapour Pressure	< 0,001 hPa (at 25 °C; calculated)
Partition Coefficient: n-octanol/water (log value)	Log P (o/w): -1.46
Density	ca 380 kg/cm ³ (bulk density)
Flammability	Non combustible material.
Molecular Weight	376.37 g/mol
Other Information	<p>Combustability index for deposited dust: 3 (23 °C); : 3 (100 °C).</p> <p>Dust explosion class: St(H)1 (Milled sample, Median value of the tested sample 0,032 mm, Loss on drying 1,5 %; The value was determined in the modified Hartmann tube.).</p> <p>Minimum ignition energy: >= 450 °C (Median value of the tested sample 0,082 mm) determined in the BAM oven >= 430 °C (Median value of the tested sample 0,096 mm) determined in the BAM oven.</p> <p>Powder volume resistivity : ca. 1E+13 Ohmm (, Median value of the tested sample 0,082 mm, Loss on drying 1,5 %) The material can accumulate static charge and can therefore cause electrical ignition.</p> <p>Minimum ignition energy : 10 - 30 mJ (Milled sample, Median value of the tested sample 0,032 mm, Loss on drying 1,5 %, EN 13821)</p> <p>The Minimum ignition energy (MIE) of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE.</p> <p>General remark: The indicated dust explosion characteristics are only valid for this product and are sensitive to the sample's parameters.</p> <p>Dissociation constant: pKa 10.2</p>

Section 10 - Stability and Reactivity

Chemical Stability	Hygroscopic Stable under normal use conditons.
Possibility of Hazardous Reactions	Dust may form explosive mixture in air.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition. Moisture.
Incompatible Materials	Strong acids, strong bases and strong oxidising agents.
Hazardous Decomposition Products	Nitrogen oxides.
Hazardous Polymerization	Will not occur.

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Other Information Thermal decomposition: Decomposes on heating. Potential for exothermic hazard. Dust may form explosive mixture in air.

Section 11 - Toxicological Information

Acute Toxicity - Oral LD50 (mouse): > 2 000 mg/kg
LD50 (rat): > 2 000 mg/kg; Repeated dose toxicity : NOAEL (Oral, rat) : 200 mg/kg/day Sub-chronic toxicity study (90-day).

Acute Toxicity - Dermal LD50 (rabbit): > 5 000 mg/kg

Acute Toxicity - Inhalation LC50 (rat, 4 h): > 5,4 mg/l

Ingestion May cause irritation.

Inhalation May cause irritation.

Skin Prolonged skin contact may cause skin irritation.

Skin Corrosion/Irritation No skin irritation (rabbit).

Eye Dust contact with the eyes can lead to mechanical irritation.

Serious Eye Damage/Irritation No eye irritation (rabbit).

Skin Sensitisation Positive photoallergenic skin reaction (guinea pig)

Carcinogenicity No evidence of carcinogenic properties.

Mutagenicity No evidence of mutagenic properties.

Early onset symptoms related to exposure Therapeutic dosage: 5 - 100 mg/day. Recommended Daily Allowance: 1.6 mg

Section 12 - Ecological Information

Persistence and Degradability Readily biodegradable. 100%/28d

Environmental Fate No information available.

Bioaccumulative Potential log P(o/w): -1.46

Acute Toxicity - Fish LC50 [Oncorhynchus mykiss (rainbow trout)]: > 500 mg/l/96h

Acute Toxicity - Daphnia EC50 [Daphnia magna (Water flea)]: 47.4 mg/l/48h
EC0 [Daphnia magna (Water flea)]: 43.8 mg/l/48h

Acute Toxicity - Algae EbC50 [Desmodesmus subspicatus (green algae)]: 9.8 mg/l/72h
ErC50 [Desmodesmus subspicatus (green algae)]: 21 mg/l/72h

Acute Toxicity - Bacteria IC0 (activated sludge): > 100 mg/l/28d. No inhibition was observed under the biodegradation test conditions.

Section 13 - Disposal Considerations

Disposal Considerations Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

Section 14 - Transport Information

Transport Information Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Section 15 - Regulatory Information

Poisons Schedule Not Scheduled

Section 16 - Any Other Relevant Information

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**Literature
References**

'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.
Safe Work Australia, 'Hazardous Chemical Information System'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

Contact Person/Point

Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**
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**Empirical Formula
& Structural
Formula**

C17H20N4O6

...End Of MSDS...

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