

SECTION 1: PRODUCT IDENTIFICATION

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| PRODUCT NAME | RIBOFLAVIN 5'-PHOSPHATE SODIUM, USP (Dietary Supplement Grade) |
| PRODUCT CODE | 1561 |
| SUPPLIER | MEDISCA Inc. Tel.: 1.800.932.1039 Fax.: 1.855.850.5855 626 Tom Miller Road, Plattsburgh, NY, 12901 MEDISCA Pharmaceutique Inc. Tel.: 1.800.665.6334 Fax.: 514.338.1693 4509 Rue Dobrin, St. Laurent, QC, H4R 2L8 MEDISCA Australia PTY LTD Tel.: 1.300.786.392 Fax.: 61.2.9700.9047 Unit 7, Heritage Business Park 5-9 Ricketty Street, Mascot, NSW 2020 |
| EMERGENCY PHONE | CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 NSW Poisons Information Centre: 131 126 National Chemical Emergency Centre 44(0)1235239670 |
| RECOMMENDED USES | Pharmaceutical Manufacturing |
| RESTRICTIONS ON USE | Not applicable |

SECTION 2: HAZARDS IDENTIFICATION

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|---|---|----------------|----------------------------|---|
| GHS CLASSIFICATION | Based on available data, the classification criteria are not met. | | | |
| PICTOGRAM | Not Applicable | | | |
| SIGNAL WORD | Not Applicable | | | |
| HAZARD STATEMENT(S) | Not Applicable | | | |
| ADVERSE PHYSIOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS | Repeated exposure may cause skin dryness or cracking. | | | |
| PRECAUTIONARY STATEMENT(S) | Prevention | Not Applicable | | |
| | Response | Not Applicable | | |
| | Storage | Not Applicable | | |
| | Disposal | Not Applicable | | |
| HMS CLASSIFICATION | Health Hazard | 1 | Flammability | 0 |
| | Reactivity | 0 | Personal Protection | B |

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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|-----------------------|--|
| CHEMICAL NAME | Riboflavin 5'-(dihydrogen phosphate), monosodium salt, dihydrate |
| BOTANICAL NAME | Not applicable |

| | |
|----------------------|---|
| SYNONYM | Riboflavin 5'-phosphate sodium; Vitamin B2 phosphate |
| CHEMICAL FORMULA | C ₁₇ H ₂₀ N ₄ NaO ₉ P |
| CHEMICAL FAMILY | Isoalloxazine |
| CAS NUMBER | 130-40-5 (Anhydrous) |
| ALTERNATE CAS NUMBER | 6184-17-4 (Dihydrate) |
| MOLECULAR WEIGHT | 478.33 |
| COMPOSITION | |

| CHEMICAL NAME | CAS NUMBER | EC NUMBER | % BY WEIGHT |
|--|------------|-----------|-------------|
| RIBOFLAVIN 5'-PHOSPHATE SODIUM, USP (Dietary Supplement Grade) | 130-40-5 | 204-988-6 | 100 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

SECTION 4: FIRST-AID MEASURES

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| IN CASE OF EYE CONTACT | Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid. |
| IN CASE OF SKIN CONTACT | Wash with soap & water for 15 minutes. If irritation persists seek medical aid. |
| IF SWALLOWED | Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice. |
| IF INHALED | Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician |
| MEDICAL ATTENTION AND SPECIAL TREATMENT | Get emergency medical help. |
| SYMPTOMS CAUSED BY EXPOSURE | Not expected to present a significant hazard under anticipated conditions of normal use. |

SECTION 5: FIREFIGHTING MEASURES

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| SPECIFIC HAZARDS ARISING FROM THE CHEMICAL | Not applicable |
| FLAMMABLE PROPERTIES | May be combustible at high temperature |
| HAZARDOUS COMBUSTION PRODUCTS | Under fire conditions, hazardous fumes will be present. |
| SUITABLE & UNSUITABLE EXTINGUISHING MEDIA | Small fire: dry chemical, CO ₂ or water spray. Large fire: dry chemical, CO ₂ , alcohol resistant foam or water spray. Do not get water inside containers. |
| PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS | Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

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| PERSONAL PRECAUTIONS | Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. |
| METHODS & MATERIAL FOR CONTAINMENT | On land, sweep or shovel into suitable containers. Minimize generation of dust. |

CLEANUP PROCEDURE

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE
PRECAUTIONS FOR SAFE HANDLING

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

CONDITIONS FOR SAFE STORAGE

Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

STORAGE CONDITIONS

Store in original container, tightly sealed, protected from direct sunlight and moisture.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name: RIBOFLAVIN 5'-PHOSPHATE SODIUM (Dihydrate) CAS #: 130-40-5

| | Country | Limit value-8 hours | | Limit value-Short Term | | IDLH | REL | Advisory | Notes |
|--------|-------------|---------------------|-------------------|------------------------|-------------------|------|-----|----------|-------|
| | | ppm | mg/m ³ | ppm | mg/m ³ | | | | |
| OSHA | USA | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| ACGIH | USA | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| NIOSH | USA | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| WEEL | USA | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| HSIS | Australia | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| HSE | UK | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |
| GESTIS | Add Country | N/L | N/L | N/L | N/L | N/L | N/L | N/A | N/A |

N/L = Not listed ; N/A = Not Available

PELs are 8-hour TWAs = Limit value - Eight hours

Ceiling or Short-Term TWA = STEL = Limit value - Short term

EXPOSURE GUIDELINES

Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m³

PERSONAL PROTECTIVE EQUIPMENT

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

SPECIFIC ENGINEERING CONTROLS

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

BIOLOGICAL MONITORING Not available

CONTROL BANDING Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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|-------------------------------------|--|---|---------------|---|---------------------------------|
| PHYSICAL STATE | Solid | | | | |
| DESCRIPTION | Fine, orange-yellow, crystalline powder, having a slight odor. Is hygroscopic. | | | | |
| SOLUBILITY | Sparingly soluble in water. | | | | |
| ODOR | Slight odor | | | | |
| FLAMMABILITY | May be combustible at high temperature | | | | |
| AUTO-IGNITION TEMPERATURE | Not available | BOILING POINT | Not available | DECOMPOSITION TEMPERATURE | Not available |
| EVAPORATION RATE | Not available | EXPLOSIVE LIMIT | Not available | FLASH POINT | Not available |
| log P (OCTANOL-WATER) | Not available | LOWER FLAMMABLE/EXPLOSIVE LIMIT(S) | Not available | MELTING/FREEZING POINT | (240-245)°C, (464-473)°F |
| PARTICLE CHARACTERISTICS | Not available | OXIDIZING PROPERTY | Not available | pH | 5.5 - 7.0 (1%) (25°C) (77°F) |
| RELATIVE DENSITY (WATER = 1) | Not available | SPECIFIC GRAVITY | Not available | UPPER FLAMMABLE/EXPLOSIVE LIMIT(S) | Not available |
| VAPOR DENSITY (AIR = 1) | Not available | VAPOR PRESSURE | Not available | VISCOSITY | Not available |

The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

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|--|---|
| REACTIVITY | Not established |
| CHEMICAL STABILITY | Stable under recommended storage conditions. Darkens in presence of moisture and light. |
| INCOMPATIBLE MATERIALS | Strong oxidizing agents. Reducing agents. Alkalis. Calcium salts. Metallic salts. |
| HAZARDOUS DECOMPOSITION PRODUCTS | Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur |
| HAZARDOUS POLYMERIZATION | Will not occur |
| POSSIBILITY OF HAZARDOUS REACTION | Not established |
| CONDITIONS TO AVOID | Moisture, sunlight and extreme temperatures Hygroscopic-Avoid exposure to moisture |

SECTION 11: TOXICOLOGICAL INFORMATION
ACUTE TOXICITY

Oral: Rat: LD50: (mg/kg): > 20 000 (anhydrous)
 Dermal: Rabbit LD50: (mg/kg): Not available
 Inhalation: Rat: LC50: (mg/L/4hr): Not available

SKIN CORROSION/IRRITATION

Based on available data, the classification criteria are not met.
 Skin (rabbit): non- Irritant (Draize)

SERIOUS EYE DAMAGE/EYE IRRITATION

Based on available data, the classification criteria are not met.
 Eye (rabbit): non- Irritant (Draize)

RESPIRATORY SENSITIZATION

Due to lack of data the classification is not possible.

SKIN SENSITIZATION

Due to lack of data the classification is not possible.

GERM CELL MUTAGENICITY

Due to lack of data the classification is not possible.

CARCINOGENICITY

OSHA RIBOFLAVIN 5'-PHOSPHATE SODIUM is not listed.
NTP RIBOFLAVIN 5'-PHOSPHATE SODIUM is not listed.
IARC RIBOFLAVIN 5'-PHOSPHATE SODIUM is not evaluated.
California Proposition 65 This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

ADDITIONAL CARCINOGENICITY INFORMATION

Due to lack of data the classification is not possible.

REPRODUCTIVE TOXICITY

Based on available data, the classification criteria are not met.
 Suspected toxic for reproduction: The Toolbox profiler DART scheme v.1.0 gives an alert for toxicity to reproduction

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Due to lack of data the classification is not possible.

ASPIRATION HAZARDS

Based on available data, the classification criteria are not met.

SIGNS AND SYMPTOMS OF EXPOSURE

ROUTES OF EXPOSURE:
 Oral, Dermal, Inhalation, Eye contact
EARLY ONSET SYMPTOMS RELATED TO EXPOSURE:
 Not available
DELAYED HEALTH EFFECT FROM EXPOSURE:
 Not available

Not expected to present a significant hazard under anticipated conditions of normal use.

POTENTIAL HEALTH EFFECTS

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation
Eyes Causes eye irritation.

SECTION 12: ECOLOGICAL INFORMATION
ECOTOXICITY

EC50: 48 Hr: Crustacea: Daphnia magna: (mg/L): > 47.4
 LC50: 96 Hr: Fish: (mg/L): > 10 000
 EC50: 96 Hr: Green Algae: (mg/L): <1*

| | |
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| PERSISTENCE AND DEGRADABILITY | Suspected persistent in the environment: The Danish QSAR database contains information indicating that the substance is predicted as non readily biodegradable |
| BIOACCUMULATIVE POTENTIAL | Not available |
| MOBILITY IN SOIL | Sparingly soluble in water. |
| OTHER ADVERSE EFFECTS | Not available |
| NOTES | This product is not intended to be released into the environment * Danish QSAR database |

SECTION 13: DISPOSAL CONSIDERATIONS

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|-------------------------|---|
| DISPOSAL METHODS | Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment. |
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SECTION 14: TRANSPORT INFORMATION

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|---|--------------------|
| UN PROPER SHIPPING NAME | Not dangerous good |
| UN NUMBER | Not applicable |
| CLASS | Not applicable |
| PACKING GROUP | Not applicable |
| AUSTRALIA | |
| HAZCHEM | Not applicable |
| EU | |
| TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE | Not Listed |
| ENVIRONMENTAL HAZARDS | Not available |
| SPECIAL SHIPPING INFORMATION | Not applicable |

SECTION 15: REGULATORY INFORMATION

UNITED STATES REGULATIONS

| Chemical Name & CAS | CERCLA 40 CFR Part 302.4 | SARA (Title III) 40 CFR Part 372.65 | EPA 40 CFR Part 355 | | Pennsylvania | Right-to-know | | California Prop 65 |
|--|--------------------------|-------------------------------------|---------------------|------------|--------------|---------------|---------------|--------------------|
| | | | Appendix A | Appendix B | | New Jersey | Massachusetts | |
| RIBOFLAVIN 5'-PHOSPHATE SODIUM (Dihydrate), 130-40-5 | N/L | N/L | N/L | N/L | N/L | N/L | N/L | N/L |

N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

| Chemical Name & CAS | Poisons and Therapeutic Goods | Therapeutic Goods Act | Code of Practices - Illicit Drug Precursors | Poisons Standard | Work Health and Safety Regulations | Inventory of Industrial Chemicals |
|--|-------------------------------|-----------------------|---|------------------|------------------------------------|-----------------------------------|
| RIBOFLAVIN 5'-PHOSPHATE SODIUM (Dihydrate), 130-40-5 | N/L | N/L | N/L | N/L | N/L | N/L |

N/L = Not Listed

EU REGULATIONS

| Chemical Name & CAS | REACH ANNEX XVII | REACH ANNEX XIV | EC 1005/2009 | EC 850/2004 | EC 1107/2009 | PIC - Prior Informed Consent Regulation | EC 2012/18 |
|--|------------------|-----------------|--------------|-------------|--------------|---|------------|
| RIBOFLAVIN 5'-PHOSPHATE SODIUM (Dihydrate), 130-40-5 | N/L | N/L | N/L | N/L | N/L | N/L | N/L |

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.

 SUBJECT TO INTERNATIONAL AGREEMENT Not applicable
SECTION 16: OTHER INFORMATION
REFERENCES
ABBREVIATIONS AND ACRONYMS

Available upon request

ACGIH - American Conference of Governmental Industrial Hygienists; **AIHA WEEL** – American Industrial Hygiene Association Workplace Environment Exposure Levels; **CAESAR** – Computer Assisted Evaluation of industrial chemical Substances According to Regulations; **CAS** – Chemical Abstract Service; **CERCLA** – Comprehensive Environmental Response, Compensation, and Liability Act; **EC50** – Effective Concentration, 50%; **EPA** – Environmental Protection Agency; **GHS** – Global Harmonized System; **HMIS** – Hazardous Materials Information System; **HSE** – Health and Safety Executive; **HSIS** – Hazardous Substances Information System; **IARC** – International Agency for Research on Cancer; **IDLH** - Immediately Dangerous to Life or Health; **IRFMN** – Ready Biodegradability Model; **ISS** – Istituto Superiore Sanità; **LC50** – Lethal Concentration, 50%; **LD50** – Lethal Dose, 50%; **MSHA** - Mine Safety and Health Administration; **NIOSH** – National Institute for Occupational Safety and Health; **NTP** – National Toxicology Program; **OSHA PEL** – Occupational Safety & Health Administration Permissible Exposure Limits; **QSAR** – Quantitative Structure-activity relationship; **REL** - Recommended Exposure Limit; **SARA** – Superfund Amendments and Reauthorization Act; **STEL** – Short Term Exposure Limit; **TLV** – Threshold Limit Value; **TWA** – Time Weighted Average; **WHMIS** – Workplace Hazardous Materials Information System

LAST REVISION

09/2025

SUPERSEDES

09/2023

 For a list of changes to the SDS since the last version, please communicate with MEDISCA at www.medisca.com
DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.

SUPPLEMENTARY INFORMATION

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.