

COCREATE GLOBAL TECHNOLOGIES PRIVATE LIMITED

U21009KA2023PTC179006

Registered address: FFK Towers, #445, 2nd Floor, 17th Cross Road, Sector 4, HSR Layout, Bangalore, Bangalore South, Karnataka - 560102, India.

Email: info@scimplify.com

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SAFETY DATA SHEET
DISODIUM 5'-RIBONUCLEOTIDE

1. Identification of the Substance/Mixture and Company

1.1 Product Identifier

- **Product Name:** Disodium 5'-Ribonucleotide
- **Synonym(s):**
 - Disodium 5'-Inosinate & Disodium 5'-Guanylate
 - Ribonucleotide
 - Disodium 5'-Ribonucleotide ; Ribotide

1.2 Relevant Identified Uses

- **Identified Use:** Flavor enhancer

1.3 Supplier Details

- **Manufacturer:** Cocreate Global Technologies Private Limited

2. Hazard Identification

Section	Details
2.1 Classification	
• REGULATION (EC) No 1272/2008 (CLP/GHS): Not classified as hazardous for supply	
• 67/548/EEC, 1999/45/EC (OSHA 29 CFR 1910.1200): Not classified as hazardous for supply	
2.2 Label Elements	
• Signal Word: N/A	
• Hazard Statement: N/A	

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Section	Details
2.3 Other Hazards	No information available

3. Composition / Information on Ingredients

Parameter	Details
Composition	Disodium 5'-Inosinate & Disodium 5'-Guanylate
Chemical Family	Mixture of IMP and GMP 50:50
Formula	$C_{10}H_{11}N_4Na_2O_8P \cdot 7.5H_2O$ (IMP) & $C_{10}H_{12}N_5Na_2O_8P \cdot 7H_2O$ (GMP)
Molecular Weight	527.17 g/mol (IMP) & 533.19 g/mol (GMP)
Purity	97.0 ~ 102.0% (expressed in I&G; IMP 50% & GMP 50%)
CAS Numbers	4691-65-0 (IMP) & 5550-12-9 (GMP)
EINECS Numbers	225-146-4 (IMP) & 226-914-1 (GMP)
RTECS Numbers	NM7519500 (IMP) & MF9290000 (GMP)

4. First Aid Measures

4.1 Description of first aid measures

- **General recommendation:** Avoid contact directly
- **After inhalation:** Remove to fresh air
- **After skin contact:** Wash area thoroughly with soap and water
- **After eye contact:** Wash eye with water for 15 minutes
- **After swallowing:** Drink large amounts of water if large amount is ingested

4.2 Most important symptoms and effects, both acute and delayed

- No information available

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4.3 Indication of immediate medical attention and special treatment needed

- No information available

5. Fire Fighting Measures

5.1 Extinguishing Media

- **Suitable extinguishing media:**
Water spray, carbon dioxide (CO₂), chemical foam, dry chemical, alcohol-resistant foam
- **Unsuitable extinguishing media:**
No information available

5.2 Special hazards arising from the substance or mixture

- Combustible material
- Hazardous combustion gases or vapors may develop in the event of fire

5.3 Advice for firefighters

- **Special Fire Fighting Procedure:**
Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear
- **Further information:**
Knock down vapors/mists with a water spray jet

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Avoid dust formation and inhalation of dust
- Avoid substance contact
- Ensure adequate ventilation

6.2 Environmental precautions

- Do not let product enter drains

6.3 Methods and materials for containment and cleaning up

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- Sweep up and shovel
- Keep in suitable and closed containers for disposal
- Do not let this chemical enter the environment
- Avoid generation of dusts

6.4 Reference to other sections

- See section 13

7. Handling & Storage

7.1 Precaution for safe handling

- Recommended to wear gloves and a face mask if excessive handling is necessary
- Use with appropriate ventilation

7.2 Conditions for safe storage, including any incompatibilities

- Recommended to be stored in clean, cool, dry conditions
- Well-ventilated area to avoid dust generation

7.3 Specific end use(s)

8. Exposure Control and Personal Protection

8.1 Control Parameters

- This product does not contain any substance with occupational exposure limit value.

8.2 Exposure Controls

Engineering Measures

- Provide adequate mechanical ventilation to avoid dust generation, especially in confined areas.
- Priority should be given to engineering controls over personal protective equipment.

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Individual Protection Measures

- **Hygiene Measures:**
Change contaminated clothing, use preventive skin protection, and wash hands after working with the substance.
- **Eye/Face Protection:**
Wear appropriate eye protection to avoid potential direct eye contact (e.g., safety glasses).
- **Hand Protection:**
Wear appropriate protective gloves.
- **Skin & Body Protection:**
Wear appropriate protective garments and gloves to prevent skin exposure.
- **Respiratory Protection:**
When dusts are generated, follow OSHA 29 CFR 1910.134 or European Standard EN 149.
Use NIOSH/MSHA or EN 149-approved respirators if exposure limits are exceeded or if irritation or other symptoms occur.

Environmental Exposure Controls

- No information available.

9. Physical and Chemical Properties

9.1 Basic Information

Property	Value / Description
Physical state, Color, Odor	White crystalline powder
Melting point / Freezing point	212.5 °C
Boiling point	870.80 °C at 760.00 mmHg
Flammability	No information available
Lower and upper explosion limit	N/A (Does not apply to solids)
Flash point	480.45 °C (897.00 °F)

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Property	Value / Description
Auto-ignition temperature	N/A (Only applies to gases and liquids)
Decomposition temperature	N/A (Only applies to self-reactive substances/mixtures)
pH (1 in 20 solution)	7.0 – 8.5
Kinematic viscosity	N/A (Only applies to liquids)
Solubility (in water at 30°C)	Soluble in water, sparingly soluble in ethanol, practically insoluble in ether
Partition coefficient (n-octanol/water)	No information available
Vapour pressure	No information available
Bulk density	0.50 ~ 0.75 g/cm ³
Relative evaporation rate	N/A (Only applies to gases and liquids)
Particle characteristics	Not determined
MIE (Minimum Ignition Energy)	>1000 mJ
P max	0 (barg)
K st	0 (bar·m/sec)
Explosion class	St0

9.2 Other Information

- No additional information available.

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10. Stability and Reactivity

Subsection	Details
10.1 Reactivity	No information available
10.2 Chemical Stability	Stable under recommended storage conditions
10.3 Possibility of Hazardous Reactions	No hazardous reaction known if used for its intended purpose
10.4 Conditions to Avoid	Avoid contact with moisture and keep away from heat and sources of ignition
10.5 Incompatible Materials	Oxidizing substances
10.6 Hazardous Decomposition Products	No information available

11. Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Category	Details
Product Information	IMP – LD50: 15,900 mg/kg (Rat)
	GMP – LD50: 17,300 mg/kg (Rat)

| **Acute Toxicity** | No evidence of acute toxicity | | **Carcinogenicity** | No evidence of carcinogenic effect | | **Mutagenicity** | No evidence of mutagenic effect | | **Irradiation & Corrosion** | N/A | | **Mutagenic Effect** | N/A | | **Sensitization** | N/A |

11.2 Information on other hazards

- No information available

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12. Ecological Information

Subsection	Details
12.1 Toxicity	Not toxic for wild animals and plants
12.2 Persistence and Degradability	High biodegradability
12.3 Bioaccumulative Potential	No safety concern
12.4 Mobility in Soil	No safety concern
12.5 PBT and vPvB Assessment	Not available, as chemical safety assessment not required or not conducted
12.6 Endocrine Disrupting Effect	No information available
12.7 Other Adverse Effects	No quantitative data available concerning ecological effects of this product

13.3 Environmental Considerations

- **Precautions:**
Ensure that disposal does not lead to environmental contamination.
- **Compliance:**
Check with local environmental authorities to ensure that disposal practices meet regulatory requirements.

14. Transport Information

Parameter	Details
Proper Delivering Name	Disodium 5'-Ribonucleotide
Proper Delivering Condition	Stored in closed and sealed container

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Parameter	Details
Means of Transportation	Sea – by Ship Air – by Airplane Land – by Container Truck

Packaging Types:

- 1 kg × 10 ea O.P.P./P.E. tube bag packed in carton box
- 10 kg × 1 ea P.E. tube bag packed in carton box
- 25 kg × 1 ea P.E. tube bag packed in carton box
- 50 lb × 1 ply P.E. tube bag packed in carton box

Regulatory Classification:

- **14.1 UN Number:** Void
- **14.2 UN Proper Shipping Name:** Void
- **14.3 Transport Hazard Class(es):** Void
- **14.4 Packing Group:** No information available
- **14.5 Environmental Hazards:** No information available
- **14.6 Special Precautions for User:** No information available
- **14.7 Maritime Transport in Bulk According to IMO Instruments:** No information available

Note: Not classified as dangerous under transport regulations.

15. Regulatory Information

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

Parameter	Details
Risk Phrase	N/A
Safety Phrase	Stored in closed and sealed container

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Parameter	Details
US Federal	
– EPA TSC	Listed on the Toxic Substance Control Act (TSCA)
– SARA	Not listed
– Clean Air Act	Not listed
– Clean Water Act	Not listed
Packaging	225-146-4 (IMP) & 226-914-1 (GMP)
EEC Directives	Product does not carry a hazard classification
Canada	Listed on Canadian Domestic Substances List (DSL)
Australia	Listed on Australian Inventory of Chemical Substances (AICS)

15.2 Chemical Safety Assessment

- For this product, a chemical safety assessment was **not carried out**.

16. Other Information

- This information is based on our present knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only.