

Material Safety Data Sheet (MSDS)

Disodium 5-Inosinate

Revision Date: 13-October-2025

Version: 1.0

Section 1: Product Identification

- **Product Name:** Disodium 5-Inosinate
- **Chemical Formula:** $C_{10}H_{11}N_4Na_2O_8P$
- **CAS No:** 4691-65-0
- **Synonyms:** Sodium 5'-inosinate, Sodium inosinate, IMP disodium salt.
- **Recommended Use:** Used as a flavor enhancer in food, pharmaceutical, and cosmetic formulations.

Section 2: Hazards Identification

- **Classification (GHS):** Flammable liquid; Skin irritation; Eye irritation; Aquatic Chronic 3.
- **Signal Word:** Warning
- **Hazard Statements:** Combustible liquid. Causes skin and eye irritation. Harmful to aquatic life with long lasting effects.

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- Harmful if swallowed
- Causes skin irritation and serious eye irritation
- Combustible liquid
- Keep away from heat/sparks/open flames. No smoking
- Wear protective gloves/eye protection
- **IF ON SKIN or IN EYES:** Rinse cautiously with water; seek medical advice if irritation persists

Section 3: Composition / Information on Ingredients

- **Concentration:** 95%

Section 4: First Aid Measures

- **Inhalation:** Remove victim to fresh air and keep at rest. Seek medical attention if symptoms occur.
- **Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation develops.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical advice.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek immediate medical attention.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Foam, carbon dioxide, or dry chemical. Avoid direct water jets.
- **Specific Hazards:** Vapors may form explosive mixtures with air. Combustion produces carbon oxides.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

- **Personal Precautions:** Avoid contact with skin and eyes. Remove ignition sources. Ensure good ventilation.
- **Environmental Precautions:** Prevent leakage into drains, surface, or ground water.
- **Cleanup Methods:** Absorb with inert material such as sand or vermiculite. Dispose of in accordance with local regulations.

Section 7: Handling and Storage

- **Handling:** Handle in well-ventilated areas. Avoid breathing vapors and contact with skin and eyes. Keep away from heat and flame.

- **Storage:** Store in tightly closed containers in a cool, dry, well-ventilated area. Keep away from oxidizers and strong acids.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** No exposure limits established.
- **Engineering Controls:** Provide adequate ventilation, especially in confined areas.
- **Personal Protective Equipment:** Wear gloves, goggles, and protective clothing. Use respiratory protection if ventilation is inadequate.

Section –: Physical and Chemical Properties

- **Appearance:** White crystalline powder.
- **Odor:** Odorless or slightly characteristic.
- **Boiling Point:** 851 °C
- **Flash Point:** 468°C (closed cup)
- **Solubility:** Insoluble in water; soluble in organic solvents such as ethanol and ether.
- **Molecular Weight:** 392.17 g/mol

Section 10: Stability and Reactivity

- **Stability:** Stable under normal handling and storage conditions.
- **Incompatible Materials:** Strong oxidizing agents and strong acids.
- **Hazardous Decomposition Products:** Carbon oxides under fire conditions.

Section 11: Toxicological Information

- **Routes of Exposure:** Inhalation, ingestion, skin and eye contact.
- **Acute Effects:** Causes skin and eye irritation.
- **Chronic Effects:** Prolonged exposure may cause dermatitis or sensitization.

Section 12: Ecological Information

- **Ecotoxicity:** Harmful to aquatic life with long-lasting effects.
- **Persistence and Degradability:** Expected to be biodegradable.
- **Bioaccumulative Potential:** Low potential for bioaccumulation.

Section 13: Disposal Considerations

- Dispose of contents/container in accordance with local/regional/national regulations. Do not release into the environment.

Section 14: Transport Information

- **UN Number:** Not regulated
- **Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Disodium 5'-Inosinate)
- **Hazard Class:** Na
- **Packing Group:** Na

Section 15: Regulatory Information

- Complies with Indian chemical safety regulations and listed under international chemical inventories.
- Classified as hazardous substance as per GHS.

Section 16: Other Information

- **Disclaimer:** The above information is believed to be correct but does not claim to be exhaustive. Users are responsible for verifying suitability under actual conditions of use. **Triveni chemicals** disclaims any liability for damage resulting from handling or contact.

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