



# SAFETY DATA SHEET IMP (DISODIUM 5'-INOSINATE) REVISION 5, DATE 28 APR 23

## 1. IDENTIFICATION

<b>Product Name</b>	<b>IMP (Disodium 5'-Inosinate)</b>
<b>Other Names</b>	Disodium IMP; Disodium inosinate; IMP, disodium salt
<b>Uses</b>	Food additive; Flavour enhancer.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	C <sub>10</sub> H <sub>11</sub> N <sub>4</sub> Na <sub>2</sub> O <sub>8</sub> P·7.5H <sub>2</sub> O
<b>Chemical Name</b>	5'-Inosinic acid, disodium salt
<b>Product Description</b>	A purine nucleotide.

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

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox 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)
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Disodium 5'-inosinate	C10H11N4Na2O8P-7.5H2O	4691-65-0	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth with water. Do not induce vomiting. Get medical advice/attention. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: 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.
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	May burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction.
Fire and Explosion Hazard	Thermal decomposition can lead to release of irritating gases and vapours.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon oxides, Nitrogen oxides, Phosphorus oxides.
	Contain runoff from fire control or dilution water - Runoff may cause pollution.

**Special Fire Fighting Instructions**

<b>Personal Protective Equipment</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
<b>Flash Point</b>	468.70 °C
<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 generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Sweep up and shovel; keep in suitable and closed containers for disposal (see SECTION 13). Avoid generating dust.
<b>Containment</b>	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Prevent entry into drains and waterways.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8).

**7. HANDLING AND STORAGE**

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust/mist/vapours and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8). Avoid strong heating (decomposition).
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).
<b>Container</b>	Keep in the original container.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>General</b>	This product does not contain any substance with occupational exposure limit value established by the region specific regulatory bodies. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m3 (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m3; TWA = 3 mg/m3 (respirable dust).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	This product does not contain any substance with biological limit value established by the region specific regulatory bodies.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. *Appropriate working operations should be given priority over the use of personal protective equipment.
<b>Personal Protection Equipment</b>	- Respiratory protection: Wear respiratory protection in case of inadequate ventilation or when dusts are generated. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses.
- Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. No recommendation.

**Special Hazards Precautions**

No information available.

**Work Hygienic Practices**

Do not eat, drink or smoke when using this product. Wash hands after working with substance. Take off contaminated clothing and wash it before reuse. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid
<b>Appearance</b>	Crystals or crystalline powder
<b>Odour</b>	Odourless
<b>Colour</b>	Colourless or white
<b>pH</b>	7.0 - 8.5 (1:20 solution)
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	851.40 °C (at 760.00 mmHg)
<b>Melting Point</b>	175 °C
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Soluble in water; Sparingly soluble in ethanol - Practically insoluble in ether
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	468.70 °C
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	0.50 ~ 0.80 g/cm <sup>3</sup>
<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>	527.17 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>	MIE (Minimum Ignition Energy): >1000 mJ
<b>Potential for Dust Explosion</b>	Pmax: 0 (barg) Kst: 0 (bar.m/sec) Explosion Class: St0
<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>	May burn but does not ignite readily.
<b>Reactions That Release Gases or Vapours</b>	Fire/thermal decomposition may produce irritating and/or toxic gases, including Carbon oxides, Nitrogen oxides, Phosphorus oxides.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	No information available.
<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Conditions to Avoid</b>	Avoid generating dust. Avoid strong heating (decomposition).
<b>Materials to Avoid</b>	Incompatible/reactive with strong oxidisers.
<b>Hazardous Decomposition Products</b>	Fire/thermal decomposition may produce irritating and/or toxic gases, including Carbon oxides, Nitrogen oxides, Phosphorus oxides.
<b>Hazardous Polymerisation</b>	No information available.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Information on likely routes of exposure: <ul style="list-style-type: none"><li>- Ingestion: May cause gastrointestinal discomfort if consumed in large amounts.</li><li>- Eye contact: Dust contact with the eyes can lead to mechanical irritation.</li><li>- Skin contact: Contact with dust can cause mechanical irritation of the skin.</li><li>- Inhalation: May cause irritation of respiratory tract.</li></ul> Chronic effects: There are no known carcinogenic chemicals in this product. *Health effects are not known. This information is based upon the present state of our knowledge.
<b>Acute</b>	
<b>Ingestion</b>	Acute toxicity (Oral): <ul style="list-style-type: none"><li>- LD50, Rat: 15,900 mg/kg [Product information; Supplier's SDS].</li></ul>
<b>Carcinogen Category</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	No information available.
<b>Persistence/Degradability</b>	No information available.
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Prevent entry into drains and waterways.
<b>Bioaccumulation Potential</b>	No information available.
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

**General Information**

Dispose of contents/container in accordance with local/regional/national regulations.

**Special Precautions for Land Fill**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

<b>Proper Shipping Name</b>	IMP (Disodium 5'-Inosinate)
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

<b>Proper Shipping Name</b>	IMP (Disodium 5'-inosinate)
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (New Zealand)**

NZS5433

<b>Proper Shipping Name</b>	IMP (Disodium 5'-Inosinate)
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (United States of America)**

US DOT

Proper Shipping Name	IMP (Disodium 5'-Inosinate)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	IMP (Disodium 5'-Inosinate)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	IMP (Disodium 5'-Inosinate)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

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)
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15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Hazardous

## National/Regional Inventories

Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	225-146-4
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Listed

## 16. OTHER INFORMATION

Related Product Codes	DIINOA3500, DIINOA3505, DIINOA3510, DIINOS4000, DIINOS4001, DIINOS4002, DIINOS4006
Revision	5
Revision Date	28 Apr 2023
Reason for Issue	SDS updated
Key/Legend	<p>&lt; Less Than</p> <p>&gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances</p> <p><b>atm</b> Atmosphere</p> <p><b>CAS</b> Chemical Abstracts Service (Registry Number)</p> <p><b>cm<sup>2</sup></b> Square Centimetres</p> <p><b>CO<sub>2</sub></b> Carbon Dioxide</p> <p><b>COD</b> Chemical Oxygen Demand</p> <p><b>deg C (°C)</b> Degrees Celcius</p> <p><b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand</p> <p><b>deg F (°F)</b> Degrees Fahrenheit</p> <p><b>g</b> Grams</p>

**g/cm<sup>3</sup>** Grams per Cubic Centimetre

**g/l** Grams per Litre

**HSNO** Hazardous Substance and New Organism

**IDLH** Immediately Dangerous to Life and Health

**immiscible** Liquids are insoluble in each other.

**inHg** Inch of Mercury

**inH<sub>2</sub>O** Inch of Water

**K** Kelvin

**kg** Kilogram

**kg/m<sup>3</sup>** Kilograms per Cubic Metre

**lb** Pound

**LC<sub>50</sub>** LC stands for lethal concentration. LC<sub>50</sub> 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.

**LD<sub>50</sub>** LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

**ltr or L** Litre

**m<sup>3</sup>** Cubic Metre

**mbar** Millibar

**mg** Milligram

**mg/24H** Milligrams per 24 Hours

**mg/kg** Milligrams per Kilogram

**mg/m<sup>3</sup>** Milligrams per Cubic Metre

**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component 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