

Material Safety Data Sheet (MSDS / SDS)

Melamine Powder - Resin Grade

SECTION 1: Identification

Product Name	Melamine (1,3,5-Triazine-2,4,6-Triamine), Resin Grade Powder
Synonyms	Melamine, Cyanuramide, Melamine Powder, 2,4,6-Triamino-1,3,5-Triazine
CAS No.	108-78-1
Recommended Use	Raw material for melamine-formaldehyde resin, laminate, adhesive and tableware manufacturing
Manufacturer / Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India - 248001
Telephone	+91 9286823642/43
Email	projects@ochnology.com, bd@ochnology.com

SECTION 2: Hazard(s) Identification

GHS Classification: Not classified as hazardous under GHS for acute health or environmental hazards based on available data. Chronic, high-dose exposure has been associated with urinary tract/kidney effects in animal studies, particularly in combination with cyanuric acid.

Signal Word: None (not classified) - general good-handling-practice precautions apply

Hazard Statements:

- Not classified as a hazardous substance or mixture under GHS/CLP for acute health or environmental hazards based on available data
- May cause mild irritation to eyes, skin and respiratory tract as a nuisance dust
- Chronic high-dose exposure has been associated with kidney/urinary tract stone formation in animal studies, an effect significantly potentiated when melamine occurs together with cyanuric acid (a structurally related compound)

Precautionary Statements:

- P264 - Wash hands thoroughly after handling

- P271 – Use only outdoors or in a well-ventilated area
- P280 – Wear protective gloves/eye protection
- P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration (w/w)
Melamine (1,3,5-Triazine-2,4,6-Triamine)	108-78-1	Min. 99.0%
Moisture / Ash (residual)	–	< 0.3% (combined)

SECTION 4: First-Aid Measures

Eye Contact	Rinse with plenty of water for several minutes to remove dust particles. Remove contact lenses if present. Seek medical attention if irritation persists.
Skin Contact	Wash with soap and water. Generally non-irritating; seek medical attention if irritation develops.
Inhalation	Move to fresh air. If coughing or respiratory discomfort from dust persists, seek medical attention.
Ingestion	Rinse mouth with water. Not expected to be acutely harmful in small amounts; seek medical attention if a large quantity is ingested, given documented chronic effects at high exposure levels (see Section 11).

SECTION 5: Fire-Fighting Measures

- Non-flammable, high-melting-point solid; does not readily support combustion under normal conditions
- Suitable extinguishing media: use media appropriate to the surrounding fire
- Strong heating/combustion in a large fire can decompose melamine, releasing ammonia, oxides of nitrogen and trace hydrogen cyanide/isocyanic acid

- Fire-fighters should wear SCBA in enclosed or heavily smoke-logged conditions

SECTION 6: Accidental Release Measures

- Avoid generating dust during clean-up; use damp cleaning methods or HEPA-filtered vacuum where practical
- Sweep or vacuum into a suitable container for reuse or disposal
- Avoid large-scale release to waterways as general environmental good practice
- Wear appropriate PPE (dust mask, goggles) during clean-up of large spills

SECTION 7: Handling and Storage

- Avoid generating and inhaling dust; use local exhaust ventilation at dust-generating points
- Avoid contact with eyes; wash hands after handling
- Store in a dry, covered area away from moisture
- Keep away from strong acids – can react/decompose under prolonged contact
- Keep bags/containers closed when not in use

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits	No specific OEL widely established for melamine; treat as Particulates Not Otherwise Regulated (nuisance dust), general reference 10 mg/m ³ total dust, 8-hr TWA
Engineering Controls	Local exhaust ventilation at dust-generating process steps
Eye/Face Protection	Safety glasses or goggles recommended in dusty conditions
Hand Protection	General-purpose work gloves sufficient for routine handling
Respiratory Protection	Dust mask (N95 or equivalent) recommended where airborne dust levels are elevated

SECTION 9: Physical and Chemical Properties

Property	Unit	Value
Appearance	–	White crystalline powder
Odour	–	Odourless
Melting Point	°C	≈ 354 (sublimes/decomposes)
Density	g/cm ³	≈ 1.57
Solubility in Water	–	Slightly soluble (≈ 3.1 g/L at 20°C)
Flash Point	–	Not applicable (non-flammable solid)

SECTION 10: Stability and Reactivity

- Stable under normal conditions of storage, handling and use
- Decomposes at very high temperature (>350°C), releasing ammonia, nitrogen oxides and trace hydrogen cyanide/isocyanic acid
- Incompatible materials: strong oxidising agents, strong acids
- Hazardous decomposition products form only under significant thermal stress, not under normal handling

SECTION 11: Toxicological Information

- Low acute oral and dermal toxicity based on published data
- Chronic, high-dose exposure has been associated with urinary tract/kidney stone formation in animal studies
- This effect is significantly potentiated when melamine occurs together with cyanuric acid (a structurally related triazine compound) – this combination was responsible for well-documented kidney-failure incidents in pets and infants when melamine was fraudulently added to food/feed products to inflate apparent protein content (2007–2008 contamination incidents)

- Not classified as carcinogenic or mutagenic based on available information; monitored for reproductive/developmental effects in some regulatory reviews at high chronic exposure levels

SECTION 12: Ecological Information

- Low acute toxicity to aquatic organisms based on available data; not classified as hazardous to aquatic organisms under standard GHS acute criteria
- Moderately persistent in the environment
- Avoid large-scale release to waterways as general environmental good practice

SECTION 13: Disposal Considerations

- Dispose of product and packaging in accordance with local, state and national regulations
- Not expected to require classification as hazardous waste under standard criteria; confirm local requirements before disposal
- Empty bags may retain residual dust – handle and dispose of per label and local regulations

SECTION 14: Transport Information

UN Number	Not applicable – not classified as Dangerous Goods
Proper Shipping Name	Not regulated for transport (IMDG / ADR / IATA / RID)
Transport Hazard Class	Not classified
Packing Group	Not applicable
Environmental Hazards	None identified under standard transport classification criteria

SECTION 15: Regulatory Information

- Widely listed on major chemical inventories (TSCA, REACH, ECL, etc.) as an existing/registered substance
- Melamine used in food-contact articles (e.g. melamine tableware) is subject to specific migration limit regulations in many jurisdictions (e.g. EU food-contact plastics regulation) – this is distinct from general industrial-grade use and requires separate food-contact compliance certification
- Buyers/importers should confirm labelling and inventory requirements applicable to their specific jurisdiction and end-use, and should never represent or use this industrial/resin-grade product as a food or feed ingredient or protein-content additive

SECTION 16: Other Information

Revision Date: 18 July 2026

This SDS has been compiled based on general industry data and knowledge for Melamine Powder products of this type as commercially supplied. It is intended as a general handling and safety guide and does not replace a batch-specific SDS from the manufacturing mill, which should be obtained and reviewed for each shipment where regulatory submission is required.

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