

Material Safety Data Sheet Melamine

Section 1 - Chemical Product and Company Identification

MSDS Name:

Melamine, Recrystallized

Catalog Numbers:

LC16400

Synonyms:

2,4,6-Triamino-s-triazine

CAS#	Chemical Name:	Percent
108-78-1	Melamine	100

Section 3 - Hazards Identification

Emergency Overview

Appearance: White crystalline powder.

Danger! Risk of explosion if heated under confinement. Harmful if absorbed through skin or if inhaled. May cause eye, skin, and respiratory tract irritation.

Target Organs: None

Potential Health Effects

Eye:

Causes mild eye irritation. Causes redness and pain.

Skin:

May cause skin irritation. Harmful if absorbed through the skin. May cause dermatitis.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. Harmful if inhaled. Inhalation of decomposition products may cause severe injury or death.

Chronic:

This substance has caused adverse reproductive and fetal effects in laboratory animals.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Risk of explosion if heated under confinement.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature:

Not available.

Flash Point:

Not available.

NFPA Rating:

Health: 2; Flammability: 1; Instability: 1

Explosion Limits:

Not available.

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

Storage:

Store in a cool, dry place. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Melamine	none listed	none listed	none listed

OSHA Vacated PELs:

Melamine: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by 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 prevent skin exposure.

Respirators:

Follow the 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.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: Fine - white **Odor:** None reported
pH: Not available
Vapor Pressure: 50 mm Hg @ 315°C
Vapor Density: 4.34

Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	sublimes
Freezing/Melting Point:	< 250°C
Decomposition Temperature:	Not available
Solubility in water:	Slightly soluble in water
Specific Gravity/Density:	1.57 g/cm ³ @ 20°C
Molecular Formula:	C ₃ H ₆ N ₆
Molecular Weight:	126.12

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures. When heated to decomposition, cyanide fumes are released. Risk of explosion if heated under confinement.

Conditions to Avoid:

Dust generation, excess heat, and temperatures above 300°C.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide, cyanide fumes.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 108-78-1: OS0700000

LD50/LC50:

CAS# 108-78-1:

Draize test, rabbit, eye: 500 mg/24H Mild;

Inhalation, rat: LC50 = 3248 mg/m³;

Oral, mouse: LD50 = 3296 mg/kg;

Oral, rat: LD50 = 3161 mg/kg;

Skin, rabbit: LD50 = >1 gm/kg

Carcinogenicity:

CAS# 108-78-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information available.

Teratogenicity:

No information available.

Reproductive:

No information available.

Mutagenicity:

No information available.

Neurotoxicity:

No information available.

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Toxic solid, organic, n.o.s. (Melamine)
Hazard Class: 6.1
UN Number: UN2811
Packing Group: III

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 108-78-1 is listed on the TSCA inventory.

SARA Reportable Quantities (RQ):

None of the chemicals in this material have an RQ.

CERCLA/SARA Section 313:

No chemicals are reportable under Section 313.

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State

State Right to Know:

CAS# 108-78-1 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Regulations:

None.

European/International Regulations

Canadian DSL/NDSL:

CAS# 108-78-1 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 108-78-1 is listed on the Canadian Ingredient Disclosure List.



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END OF MSDS