

SAFETY DATA SHEET

MALEIC ANHYDRIDE

CAS No.: 108-31-6

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Maleic Anhydride
CAS Number	108-31-6
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word	Danger
HAZARD CLASSIFICATION - Acute toxicity, inhalation - Category 4 - Skin corrosion - Category 1B - Serious eye damage - Category 1 - Respiratory sensitization - Category 1 - Skin sensitization - Category 1 - Specific target organ toxicity, single exposure - Category 3 (respiratory irritation) - Specific target organ toxicity, repeated exposure - Category 2 (respiratory system)	
HAZARD STATEMENTS - H332 - Harmful if inhaled - H314 - Causes severe skin burns and eye damage - H317 - May cause an allergic skin reaction - H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled - H335 - May cause respiratory irritation - H373 - May cause damage to organs (respiratory system) through prolonged or repeated exposure	
PRECAUTIONARY STATEMENTS - P260 - Do not breathe dust/fume/vapours - P264 - Wash exposed skin thoroughly after handling - P271 - Use only outdoors or in a well-ventilated area - P280 - Wear protective gloves/eye protection/face protection/respiratory protection - P284 - Wear respiratory protection - P301+P330+P331 - IF SWALLOWED: rinse mouth; do NOT induce vomiting - P303+P361+P353 - IF ON SKIN: remove contaminated clothing immediately and rinse skin with water - P304+P340 - IF INHALED: remove to fresh air and keep comfortable for breathing - P305+P351+P338 - IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing - P310 - Immediately call a POISON CENTER or doctor - P342+P311 - If experiencing respiratory symptoms: call a POISON CENTER or doctor	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Maleic Anhydride
CAS Number	108-31-6
Physical State	Solid (also supplied molten/liquid at elevated temperature)
Appearance / Odour	White to off-white fused solid, flakes, briquettes or molten liquid with a sharp, acrid, irritating odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing and get immediate medical attention.
Skin Contact	Remove contaminated clothing immediately and rinse skin with plenty of water for at least 15 minutes; seek immediate medical attention, particularly if molten material has caused thermal/chemical burns.
Inhalation	Remove immediately to fresh air and keep at rest in a position comfortable for breathing; seek immediate medical attention, as effects including sensitization/asthma-like reactions may be delayed.
Ingestion	Do NOT induce vomiting; rinse mouth; give water to drink if conscious; seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam, or water spray/fog (with caution around molten material due to potential steam/splatter).
Unsuitable Extinguishing Media	Avoid a direct water jet onto molten product, which can cause violent steam generation and splattering.
Special Hazards	Combustible solid; dust can form an explosible cloud in the presence of an ignition source; combustion or thermal decomposition releases irritating and corrosive fumes; molten product presents thermal burn hazard; wear full PPE and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Measures	Avoid generating dust or contact with molten material, ventilate the area, sweep up solid material avoiding dust, contain and neutralize cautiously, and collect for disposal by trained personnel; keep away from moisture.
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7. HANDLING AND STORAGE

Handling Precautions	Use with adequate ventilation or local exhaust, avoid all skin/eye contact and inhalation of dust/fume, use appropriate PPE including respiratory protection, and exercise care with molten product due to thermal burn risk and reactivity with moisture.
Storage Conditions	Store in a cool, dry, well-ventilated area away from moisture, strong bases and oxidizers, in tightly closed containers; molten product requires heated, insulated, moisture-free storage/transfer systems per supplier guidance.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL / ACGIH TLV ~0.1 ppm TWA; requires chemical-resistant gloves (e.g., butyl, neoprene — heat-resistant for molten handling), full-face respirator with appropriate cartridge or supplied air, chemical splash goggles, and impervious protective clothing.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid (also supplied molten/liquid at elevated temperature)
Appearance / Odour	White to off-white fused solid, flakes, briquettes or molten liquid with a sharp, acrid, irritating odor.
Boiling Point	~202 C
Melting Point	~52-54 C
Flash Point	~102 C (closed cup, solid/molten)
Density / Specific Gravity	~1.48 g/cm ³ (solid, 20 C)
Water Solubility	Reacts with water (hydrolyzes readily to maleic acid); considered reactive rather than simply soluble
pH Value	~2 (aqueous solution as it hydrolyzes to maleic acid, strongly acidic)

10. STABILITY AND REACTIVITY

Stability	Stable under dry storage conditions; reacts readily and exothermically with water/moisture to form maleic acid; can polymerize under certain catalytic/thermal conditions.
Incompatible Materials	Water/moisture, strong bases, amines, oxidizing agents, and reducing agents.
Hazardous Decomposition	Irritating and corrosive fumes (including carbon oxides) on combustion or strong thermal decomposition.

11. TOXICOLOGICAL INFORMATION

Summary	Harmful if inhaled; corrosive, causing severe skin burns and eye damage; a potent and well-documented respiratory and skin sensitizer that can cause occupational asthma with repeated exposure; prolonged/repeated exposure causes respiratory system damage; not classified as a confirmed human carcinogen, mutagen or reproductive toxicant based on available data.
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12. ECOLOGICAL INFORMATION

Summary	Hydrolyzes readily to maleic acid in the environment and is not expected to persist in its original anhydride form; moderate aquatic toxicity has been reported, primarily through acidification; should be prevented from entering waterways.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of as hazardous/chemical waste through a licensed waste management facility in accordance with local regulations, typically after controlled neutralization; do not discharge to drains untreated.
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14. TRANSPORT INFORMATION

UN Number	UN2215
Transport Hazard Class	Class 8 (Corrosive)
Packing Group	III

15. REGULATORY INFORMATION

Notes	Key raw material for unsaturated polyester resins, alkyd resins and agricultural chemicals; classified as corrosive, a respiratory/skin sensitizer, and harmful under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN2215, Class 8, Packing Group III; handling requires respiratory sensitization awareness and precautions for molten-form supply.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

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+91 - 9840284032, 9176135357
+91 - 44 - 25393652, 42130281
sales@surajchemicals.com
surajchemicals@yahoo.com

No 92, Govindappa Naicken Street
Shiva Complex, Chennai - 600001
www.surajchemicals.com
GST NO : 33ACEPV8190L1ZZ

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