

Material Safety Data Sheet (MSDS / SDS)

Maleic Anhydride - Industrial Grade

SECTION 1: Identification

Product Name	Maleic Anhydride
Synonyms	Maleic Anhydride, cis-Butenedioic Anhydride, Toxilic Anhydride
CAS No.	108-31-6
Recommended Use	Feedstock for unsaturated polyester resin (UPR), fumaric acid, agricultural chemicals and maleic-anhydride-grafted polymers
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: Skin Corrosion Category 1B (H314 - Causes severe skin burns and eye damage); Respiratory Sensitisation Category 1 (H334); Skin Sensitisation Category 1 (H317); Specific Target Organ Toxicity - Single Exposure Category 3, Respiratory Irritation (H335); Acute Toxicity Category 4, Oral (H302)

Signal Word: Danger

Hazard Statements:

- H314 - Causes severe skin burns and eye damage
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317 - May cause an allergic skin reaction
- H335 - May cause respiratory irritation
- H302 - Harmful if swallowed

Precautionary Statements:

- P260 - Do not breathe dust/fume/vapour
- P264 - Wash hands thoroughly after handling
- P270 - Do not eat, drink or smoke when using this product

- P271 – Use only outdoors or in a well-ventilated area
- P280 – Wear protective gloves/protective clothing/eye protection/face protection/respiratory protection
- P285 – In case of inadequate ventilation, wear respiratory protection
- P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P303+P361+P353 – IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P341 – IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing
- P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing
- P310 – Immediately call a POISON CENTER/doctor
- P342+P311 – If experiencing respiratory symptoms, call a POISON CENTER/doctor

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration (w/w)
Maleic Anhydride	108-31-6	Min. 99.5%
Maleic Acid (residual, from moisture exposure)	110-16-7	< 0.5%

SECTION 4: First-Aid Measures

Eye Contact

Rinse immediately and continuously with plenty of water for at least 20–30 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Get immediate medical attention – risk of severe and permanent eye damage.

Skin Contact

Remove contaminated clothing immediately. Flush affected area with plenty of water for at least 20 minutes. Get medical attention immediately – severe chemical burns are possible.

Inhalation

Move to fresh air immediately. If breathing is difficult or wheezing/asthma-like symptoms occur, seek medical attention immediately – maleic anhydride is a recognised respiratory sensitizer and repeated occupational exposure has been documented to cause asthma (“maleic anhydride asthma”).

Ingestion

Do NOT induce vomiting. Rinse mouth with water. Seek immediate medical attention – risk of severe internal burns.

SECTION 5: Fire-Fighting Measures

- Combustible solid – keep away from heat and open flame
- Suitable extinguishing media: dry chemical, CO₂, foam, water spray/fog
- Combustion releases irritating/corrosive fumes – fire-fighters should wear full acid-resistant protective equipment and SCBA

SECTION 6: Accidental Release Measures

- Evacuate non-essential personnel; wear full chemical-resistant PPE (goggles, face shield, chemical suit, gloves) before approaching the spill
- Avoid contact with moisture – maleic anhydride reacts with water to form corrosive maleic acid, generating heat
- Sweep/collect solid material into a dry, sealed container for disposal – avoid generating dust
- Prevent entry into drains, sewers or waterways

SECTION 7: Handling and Storage

- Avoid all contact with skin and eyes; avoid breathing dust/fume/vapour; wear full chemical-resistant PPE at all times when handling
- Workers with pre-existing asthma or respiratory sensitisation should be medically evaluated before regular handling
- Store in a cool, dry, well-ventilated area, physically segregated from moisture, incompatible materials and general-access areas
- Keep containers tightly sealed – product is hygroscopic and reacts with moisture to form corrosive maleic acid
- Keep away from strong oxidising agents, strong bases and reducing agents

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits	OSHA PEL / ACGIH TLV: 0.1 ppm, 8-hr TWA for maleic anhydride
Engineering Controls	Local exhaust ventilation and, where practical, closed/automated handling systems given the corrosive and respiratory sensitisation hazards
Eye/Face Protection	Chemical splash goggles and face shield required – this product causes severe eye damage
Hand Protection	Chemical-resistant gloves (neoprene or PVC) required
Respiratory Protection	Respiratory protection (at minimum a NIOSH-approved particulate respirator; higher protection required for elevated exposure) required given the respiratory sensitisation and corrosivity hazards

SECTION 9: Physical and Chemical Properties

Property	Unit	Value
Appearance	–	White fused solid/flakes
Odour	–	Sharp, acrid odour
Melting Point	°C	52 – 54
Boiling Point	°C	≈ 202
Solubility in Water	–	Reacts with water to form maleic acid
Flash Point	°C	≈ 102 (closed cup)

SECTION 10: Stability and Reactivity

- Stable under normal, dry storage conditions
- Reacts with water/moisture to form maleic acid, generating heat – keep strictly dry
- Incompatible materials: strong oxidising agents, strong bases, reducing agents, amines
- Hazardous decomposition products: irritating/corrosive fumes on combustion

SECTION 11: Toxicological Information

- Corrosive – causes severe skin burns and eye damage on direct contact
- Maleic anhydride is a well-documented respiratory sensitiser; occupational asthma (“maleic anhydride asthma”) is a recognised condition in workers with repeated inhalation exposure in resin/plastics manufacturing
- May cause allergic skin reactions in sensitised individuals
- Harmful if swallowed; causes severe internal burns
- Not classified as carcinogenic or mutagenic based on available information

SECTION 12: Ecological Information

- Toxic to aquatic organisms primarily through the acidic/corrosive effect of its hydrolysis product (maleic acid)
- Must not be released to waterways without neutralisation
- Readily hydrolyses and is not expected to persist or bioaccumulate

SECTION 13: Disposal Considerations

- Neutralise (under controlled conditions by trained personnel) before disposal where appropriate
- Dispose of as hazardous waste in accordance with local, state and national regulations
- Do not discharge to sewers or waterways

SECTION 14: Transport Information

UN Number	UN 2215
Proper Shipping Name	MALEIC ANHYDRIDE

Transport Hazard Class	8 (Corrosive)
Packing Group	III
Environmental Hazards	Avoid release to aquatic environment

SECTION 15: Regulatory Information

- Classified as a Dangerous Good (Class 8 Corrosive, UN 2215) under IMDG/ADR/IATA – requires DG documentation and DG-compliant freight booking
- Widely listed on major chemical inventories (TSCA, REACH, ECL, etc.) as an existing/registered substance
- Buyers/importers should confirm import permits and corrosive-material/respiratory-sensitiser handling regulations applicable to their specific jurisdiction

SECTION 16: Other Information

Revision Date: 19 July 2026

This SDS has been compiled based on general industry data and knowledge for Maleic Anhydride products of this type as commercially supplied. Maleic anhydride is a genuinely corrosive, respiratory-sensitising Dangerous Good – this document is intended as a general handling and safety guide only and does not replace a batch-specific SDS from the manufacturing mill or a professional Dangerous Goods and occupational health compliance review.

Disclaimer: This Safety Data Sheet is prepared based on our current knowledge and information believed to be reliable for the product as typically supplied, and is intended as a general guide only. It does not constitute a warranty of any specific properties. Ochnology Solution Pvt. Ltd. reserves the right to modify this document without prior notice. Buyers/users are responsible for determining the suitability of this information for their own use, handling, and disposal practices, and for compliance with applicable laws and regulations in their jurisdiction.