

SAFETY DATA SHEET

PHTHALIC ANHYDRIDE

CAS No.: 85-44-9

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	Phthalic Anhydride
CAS Number	85-44-9
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 • Skin irritation - Category 2 • Serious eye damage - Category 1 • Respiratory sensitization - Category 1 • Skin sensitization - Category 1 • Specific target organ toxicity, single exposure - Category 3 (respiratory irritation)	
HAZARD STATEMENTS • H315 - Causes skin irritation • H318 - Causes serious 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	
PRECAUTIONARY STATEMENTS • P261 - Avoid breathing 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 • P302+P352 - IF ON SKIN: wash with plenty of water • 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	Phthalic Anhydride
CAS Number	85-44-9
Physical State	Solid (also supplied molten at elevated temperature)
Appearance / Odour	White crystalline flakes, needles or briquettes with a mild, characteristic 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	Wash off with plenty of water and soap; remove contaminated clothing; seek medical attention if irritation or a rash persists.
Inhalation	Remove immediately to fresh air and keep at rest in a position comfortable for breathing; seek medical attention as effects including sensitization/asthma-like reactions may be delayed.
Ingestion	Rinse mouth; do NOT induce vomiting; 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.
Unsuitable Extinguishing Media	Avoid a direct water jet onto molten product, which can cause 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 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, and collect for disposal; 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 given its sensitization potential, and exercise care with molten product due to thermal burn risk.
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 ~1 mg/m3 (approx. 0.17 ppm) TWA/ceiling range depending on jurisdiction; requires chemical-resistant gloves (e.g., nitrile, 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 at elevated temperature)
Appearance / Odour	White crystalline flakes, needles or briquettes with a mild, characteristic odor.
Boiling Point	~295 C (sublimes)
Melting Point	~131 C
Flash Point	~152 C (closed cup, solid/molten)
Density / Specific Gravity	~1.53 g/cm3 (solid)
Water Solubility	Slightly soluble, ~6 g/L at 20 C; slowly hydrolyzes in water to phthalic acid
pH Value	~2.5-3.5 (saturated aqueous solution, as it hydrolyzes to phthalic acid, acidic)

10. STABILITY AND REACTIVITY

Stability	Stable under dry storage conditions; slowly hydrolyzes with moisture to phthalic acid; combustible dust hazard when finely divided.
Incompatible Materials	Water/moisture (slow reaction), strong bases, amines, and strong oxidizing agents.
Hazardous Decomposition	Irritating fumes including carbon oxides on combustion or strong thermal decomposition.

11. TOXICOLOGICAL INFORMATION

Summary	Corrosive to the eyes, causing serious eye damage, and irritating to skin; a well-documented respiratory and skin sensitizer capable of causing occupational asthma with repeated exposure; low acute oral toxicity; not classified as a carcinogen, mutagen or reproductive toxicant based on available data.
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12. ECOLOGICAL INFORMATION

Summary	Hydrolyzes to phthalic acid in the environment and is not expected to persist in its original anhydride form; low-to-moderate aquatic toxicity; should be prevented from entering waterways as good practice.
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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.
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14. TRANSPORT INFORMATION

UN Number	Not regulated for transport under normal solid form (verify molten/heated transport classification separately, as elevated-temperature shipments may carry additional requirements)
Transport Hazard Class	Not regulated (solid form) / special provisions may apply for molten transport
Packing Group	Not applicable

15. REGULATORY INFORMATION

Notes	Major raw material for plasticizer (e.g., DOP/DINP), unsaturated polyester resin, and alkyd resin manufacture; classified as a respiratory/skin sensitizer with serious eye damage potential under GHS, OSHA HCS and EU CLP; note this is distinct from ortho-phthalate ester plasticizers themselves, which face separate regulatory scrutiny in some jurisdictions.
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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.

(This document is computer generated and therefore does not require any signature.)

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