



ELRASA - PTAn™ (Phthalic Anhydride)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White flakes
Physical Form	White flakes
Odor	Mild, characteristic, acrid, choking odor.
Molecular Weight	148.11 g/mol
Density	1.53 g/cm ³
Specific Gravity	1.53
Viscosity (Molten)	1.19 mPa·s at 132 °C
Refractive Index	1.646
pH (Aqueous Solution)	Forms a corrosive solution; hydrolyzes to Phthalic acid.
Assay / Purity	≥99%
Chemical Properties	
pKa	No reliable source found.
Ionic Nature	Non-ionic; behaves as a Lewis acid.
Incompatibilities	Strong oxidizers, strong acids, strong bases, alcohols, amines, water, copper oxide, and sodium nitrite.
Hazardous Reactions / Decomposition Products	Reacts exothermically with water to form Phthalic Acid. Reaction can be violent when heated with copper oxide or sodium nitrite. When heated to decomposition, may emit toxic fumes including carbon monoxide and carbon dioxide.
Thermal Properties	
Melting Point	131 °C
Boiling Point	284 °C (sublimes)
Flash Point	152 °C (closed cup)
Autoignition Temperature	570 °C
Decomposition Temperature	No decomposition reported below boiling point.
Thermal Stability	Stable under normal conditions of storage and handling. Heat contributes to instability.



Property	Specification
Solubility	
Solubility in Water	6 g/L at 20°C (reacts slowly to form phthalic acid).
Solubility in Ethanol	Soluble.
Solubility in Methanol	No reliable source found.
Solubility in Acetone	Soluble.
Solubility in Diethyl Ether	Sparingly soluble / Slightly soluble.
Solubility in Glycerol	No reliable source found.
Solubility in Chloroform	Sparingly soluble.
Solubility in Benzene	Soluble.

2. Dosing by Application

Application	Recommended / Max Dosage
Alkyd Resins	Typically used as a primary dibasic acid component, with the amount determined by the desired oil length and performance characteristics of the resin.
Unsaturated Polyester Resins	A key component reacted with glycols and unsaturated dibasic acids/anhydrides. The ratio determines the resin's properties, such as rigidity and chemical resistance.
Phthalate Plasticizers	Used as the primary reactant with various alcohols (e.g., 2-ethylhexanol, butanol) to produce esters like DEHP and DBP. The dosage is based on a 1:2 molar ratio of anhydride to alcohol.

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

EXPLORE ELCHEMY'S PRODUCT PORTFOLIO

[ELRASA - PTAn™ \(Phthalic Anhydride\)](#) | [Browse Catalog](#) | [Connect with us](#)