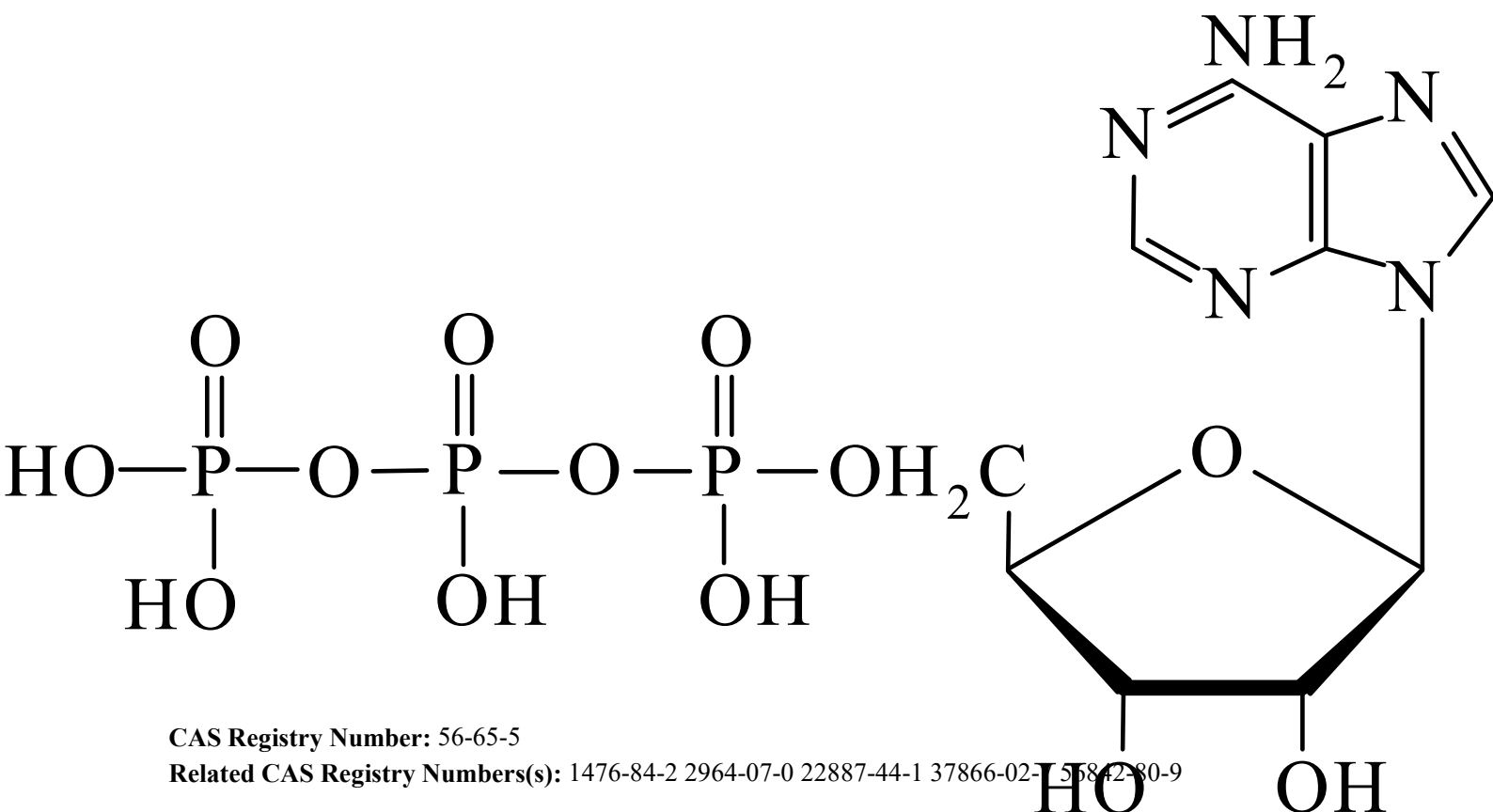




>>Entry Name: Adenosine triphosphate

Synonym(s): Adenosine 5'-(tetrahydrogen triphosphate), 9Cl, 8Cl. ATP. Adenosine 5'-triphosphoric acid. Adenylpyrophosphoric acid. Atriphos. Cardenosine. Fosfobion. Striadyne



Molecular Formula: C₁₀H₁₆N₅O₁₃P₃

Molecular Weight: 507.183

Accurate Mass: 506.995751

Percentage Composition: C 23.68%; H 3.18%; N 13.81%; O 41.01%; P 18.32%

Biological Source: Isol. from muscle extracts. Mammalian skeletal muscle at rest contains 0.3-0.4 g of ATP/100 g. Isol. from various plant sources

Use/Importance: Important metabolic coenzyme; fundamental role in biological energy transformations. Used in the treatment of supraventricular tachycardia

Melting Point: Mp 143-145 dec.°

Optical Rotation: [α]_D²² -26.7 (c, 3.1 in H₂O)

Solubility: BERDY SOL: Sol. H₂O

pKa Value: pK_{a4} 4.06; pK_{a5} 6.53 (25°)

UV: [neutral] λ_{max} 259 () (H₂O) (Berdy)

Other Data: λ_{max} 259 nm (ε 15 400) (H₂O). Component of numerous preparations

Hazard & Toxicity: LD₅₀ (rat, ipr) 200mg/kg