Cyclohexanone

Product Code C10,218-0
Store at Room Temperature
Replacement for Product Number C 8390

Product Description
Molecular Formula: C$_6$H$_{10}$O
Molecular Weight: 98.14
CAS Number: 108-94-1
Density: 0.9478 g/ml (25 °C)$^1$
Boiling point: 155 °C (760 torr)$^1$
Melting point: -32.1 °C$^1$
Synonyms: ketohexamethylene, pimelic ketone

Cyclohexanone is a solvent that is used in organic synthesis. It is obtained from cyclohexanol by catalytic dehydrogenation or by oxidation; the latter process gives adipic acid as an additional product. It may also be produced from cyclohexane by oxidation, which gives both cyclohexanone and cyclohexanol as products.$^1$

Notable uses of cyclohexanone include the production of adipic acid for nylon and of caprolactam. Cyclohexanone is also a solvent for cellulose acetate, nitrocellulose, natural resins, vinyl resins, polyvinyl chloride and its copolymers, methacrylate ester polymers, waxes, and fats.$^1$

Cyclohexanone has been investigated in the potential use of ionic liquids in liquid membranes for the selective transport of organic molecules.$^2$ Studies of the nanocatalyst-mediated conversion of cyclohexanone to its oxime and caprolactam have been published.$^{3,4}$

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in ethanol (0.1 ml/ml, 10% v/v), yielding a clear, colorless solution. Cyclohexanone is generally miscible with ether and other common organic solvents. This product is also soluble in water (87 mg/ml).$^1$

References
1. The Merck Index, 12th ed., Entry# 2795.