



**PRODUCT: Propylene oxide**

**Propylene oxide** is an organic compound with the molecular formula  $CH_3CHCH_2O$ . This colorless volatile liquid is produced on a large scale industrially, its major application being its use for the production of polyether polyols for use in making polyurethane plastics. It is a chiral epoxide, although it is commonly used as a racemic mixture.

**Application:**

Between 60 and 70% of all propylene oxide is converted to polyether polyols for the production of polyurethane plastics. About 20% of propylene oxide is hydrolyzed into propylene glycol, via a process which is accelerated by acid or base catalysis. Other major products are polypropylene glycol, propylene glycol ethers, and propylene carbonate.

Items	Unit	Standards
Minimum Assay (GLC)	%	99.5
WT. per ml at 20°C	g	0.827 - 0.829
Boiling Range (95%)	°C	33 - 36
Refractive Index	-	1.366 - 1.368
Water	%	Not more than 0.1