

# DIAZO ACETIC ESTER

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## ALIPHATIC DIAZO COMPOUNDS

They are characterised by the presence of a  $>\text{CN}_2$  group.

Highly reactive compounds

Examples:

1. Diazomethane ,  $\text{CH}_2\text{N}_2$
  2. Diazoacetic acetic ester  $\text{CHN}_2\text{COOC}_2\text{H}_5$
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# PREPARATION

❖ It is prepared by reacting the cooled solution of hydrochloride of ethyl glycine hydrochloride with a cold solution of sodium nitrate.



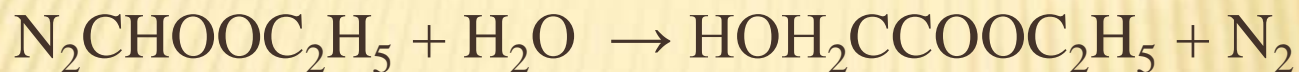
## PROPERTIES

- ❖ It is a yellow oil.
- ❖ Insoluble in water
- ❖ Insoluble in alcohol and ether
- ❖ Reaction are similar to that of diazomethane.

## SYNTHETIC IMPORTANCE

### ▪ Synthesis of ethylglycolate

when boiled with dilute halogen acid, diazoacetic ester gives glycollic ester



### ▪ Synthesis of ethylchloroacetate

with concentrated halogen acid, it produces ethyl halogenoacetate

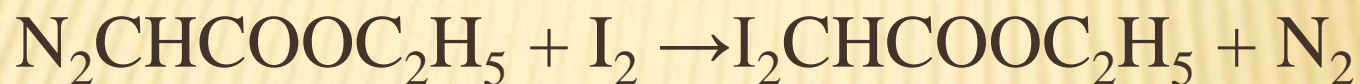


## Synthesis of acetyl glycollic ester

With acetic acid and ethanol, it gives substituted glycollic esters.



## Synthesis of ethyl bisiodoacetate



### Reduction Product

On reduction with zinc and acetic acid, it gives ethyl glycine ester and ammonia.

