

# Ethanolamines/Glycol Ethers

## Tier 3 Procedure

**Section Number:** 607  
**Issue Number:** 1.5  
**Original Date:** 12-17-91 **Author:** David Avera  
**Revision Date:** 03-13-98  
**Title:** Infrared Identification Of Ammonia  
**References:** Glossary Of Equipment Identification (Text # 114)

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### 607. Infrared Identification Of Ammonia

#### 1.0 Objective:

1.1 To provide a basic procedure for the easy identification of ammonia using the infrared spectrophotometer (ir).

#### 2.0 Responsibility:

2.1 The lab technician is responsible for ensuring that this equipment is maintained such that it remains in proper working order and in statistical control.

2.2 The lab operator is responsible for ensuring that this test is conducted on all incoming shipments of anhydrous ammonia prior to being transferred to the system.

#### 3.0 Safety Notation:

3.1 The following steps in this procedure require that the operator draw samples of ammonia from a pressurized cylinder. This can be very dangerous. The hazardous materials manual for raw material is available in the lab if there are any questions about the handling of ammonia.

#### 4.0 Procedure:

4.1 While under the vent hood, slowly open the sample cylinder into a glass beaker to check the color of the raw material (ammonia). It must be clear.

4.2 Also release gas from the cylinder into a sample cell. This should be done under the hood also.

4.3 Place sample cell in cell cradle and turn on unit. On/off switch is located on lower right end of unit.

4.4 On instrument panel, all black buttons should be down and all white buttons up.

4.5 Wait until digital readout is on 400 wave numbers.

4.6 Move chart, if needed, to 4000 wave numbers by pressing "chart" and "forward", or "chart" and "rev", whichever is appropriate.

4.7 Set the baseline at about 75% and press "scan". The digital readout should start to countdown and the chart should move forward.

4.8 The ir will automatically stop at 600 wave numbers. When this happens the sample is complete.

4.9 Turn the unit off with sample still in place.

4.10 Tear the chart off and compare the peaks to the standard chart overlay.

4.11 Replace the plastic cover and place cell in desiccator.

4.12 Empty the sample cylinder at the vent station by D-215.

#### **5.0 Equipment:**

5.1 Any equipment needed to run the ir is located under the machine in drawers (pens, paper, spare cells, etc.)

#### **6.0 Revisions:**

|                |          |                                                                    |
|----------------|----------|--------------------------------------------------------------------|
| Revision No. 1 | 02-19-93 | Yearly Review                                                      |
| Revision No. 2 | 12-21-94 | Yearly Review                                                      |
| Revision No. 3 | 02-23-95 | Changes made as a result of the January procedure review (see MOC) |
| Revision No. 4 | 12-29-95 | Yearly Review                                                      |
| Revision No. 5 | 03-13-98 | Deleted 2.1<br>Modified new 2.1, 2.2                               |