

# AMMONIUM NITRATE

## Technical Information



## 83% Liquor

### Product Description

AMMONIUM NITRATE LIQUOR is a clear colorless liquid that is heated to > 225°F to keep the salt dissolved in solution. It is infinitely soluble in water and does not precipitate with any common chemical.

### Application Recommendations

The hot AMMONIUM NITRATE LIQUOR is used extensively in the mining industry. Consult your Dyno Nobel representative for additional details.

### Transportation, Storage and Handling

Consult the many publications that address transportation, storage and handling of AMMONIUM NITRATE.

- **The Fertilizer Institute:** AMMONIUM NITRATE Packaging, Handling, Transportation, Storage and Use.
- **Bureau of Mines:** I 28.23:6773 Explosive Hazards of AMMONIUM NITRATE Under Fire Exposure.
- **International Fertilizer Industry Association:** Handbook for the Safe Storage of AMMONIUM NITRATE Based Fertilizers.
- Hot concentrated AMMONIUM NITRATE solution poses a great health hazard to the handler. If tissue is contacted with this hot solution, it can cause instantaneous third degree burns. **ALWAYS** wear liquid impervious clothing, gloves and boots. **ALWAYS** protect eyes and face with shield when loading.
- Any AMMONIUM NITRATE can decompose into ammonia and nitric acid fume at 350°F
- **ALWAYS** wash vessels containing AMMONIUM NITRATE before attempting repairs requiring welding.
- Should a large spill of AMMONIUM NITRATE solution occur, **ALWAYS** restrict it from the drainage. The high nitrogen content (29%) may kill foliage, if not diluted.
- AMMONIUM NITRATE can be handled by the municipal water treatment facility if spilled in a municipality.

## Properties

SDS  
#1021

Ammonium Nitrate % by weight	82.0 to 86.0
Water % by weight	14.0 to 18.0
Free Ammonia % by weight	0.0015 to 0.0065
Phosphate ion by weight maximum	15 ppm
Sulfonate ion by weight maximum	50 ppm
Color; Metal Oxide Turbidity (MOT)	65 color unit maximum
pH (eutectic point titration)	4.60 to 5.25 one Molar Solution
pH (ATC pH probe)	2.0 minimum - 6.0 maximum
Salt-out Temperature (open vessel)	160 to 170°F
Salt-out Temperature (closed vessel)	153 to 163°F
Storage Temperature (summer)	< 225°F
Storage Temperature (winter)	> 235°F
Weight @ 200°F lbs/gallon	11.33 to 11.50

### Hazardous Shipping Description

- **AMMONIUM NITRATE** is placarded as an oxidizer that is transported under a hazard classification 5.1.
- It may also have a "HOT" label on the trailer.
- The shipment will be marked with international transportation number UN 2426 which may be incorporated into the placard.
- Consult MSDS #1021 for more specific and comprehensive information about chemical hazards.



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