

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

MSDS
#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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