

Product Data Sheet



Aqua Ammonia 20.5 Baume



19.0% Aqua Ammonia Solution

General:

Apache Nitrogen Products, Inc. manufactures a clear Aqua Ammonia (Ammonium Hydroxide) solution using distilled water that contains a range of 18.5% to 19.5% Ammonia

Typical Chemical Composition:

Total Nitrogen (N)	15.58%
Total Ammonia (NH ₃)	19.0%
Sulfate (ppm)	< 2
Phosphate	< 2
Carbon Dioxide (ppm)	< 0.2
Chloride	< 0.002 %
Iron (ppm Fe)	< 0.5

Typical Physical Data:

Specific Gravity @ 60°F	.9284
Weight per gallon @ 60°F	7.74 lbs

Compatibility & Uses:

- Use – Aqua Ammonia is used in stack emission control systems to neutralize sulfur oxides from combustion of sulfur-containing fuels, as a method of NO_x control in both catalytic and non-catalytic applications, and to enhance the efficiency of electrostatic precipitators for particulate control.
- In SCR systems, ammonia vapor is used as the reducing agent and injected into the flue gas stream, passing over a catalyst. NO_x emission reductions over 80-90% are achieved. The optimum temperature is usually between 300°C and 400°C. This is normally the flue gas temperature at the economizer outlet.

- It is used in several areas of water and wastewater treatment, such as pH control, in solution form to regenerate weak anion exchange resins, in conjunction with chlorine to produce potable water, and as an oxygen scavenger in boiler water treatment.

Advantages:

- Using Aqua Ammonia is significantly less hazardous than Anhydrous Ammonia and avoids many of the stringent RMP requirements for highly hazardous materials.
- Aqua ammonia of 23% or less can be stored at atmospheric pressure at elevations to 3,200 ft above sea level and ambient temperatures.
- Aqua ammonia (Ammonium Hydroxide) ($\text{NH}_3 + \text{H}_2\text{O} = \text{NH}_4\text{OH}$) is manufactured by blending industrial grade anhydrous ammonia with demineralized water to achieve a high purity solution for the demands of NOx abatement
- Apache's aqua ammonia is manufactured using distilled water which is more pure than demineralized water. Therefore, product quality is superior.

Safety: Refer to the product Material Safety Data Sheet for additional information.

- Normal precautions for working around chemical solutions.

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