

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonium Hydroxide 20% ACS Grade
Synonyms: azanium hydroxide, Ammonium Hydroxide
CAS Number: 1336-21-6
Grade/Purity: ACS Reagent Grade
Product Type: Bases
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger

GHS Pictograms:



Hazard Statements:

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| H290 | May be corrosive to metals |
| H314 | Causes severe skin burns and eye damage |
| H335 | May cause respiratory irritation |
| H400 | Very toxic to aquatic life |

Precautionary Statements:

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| P234 | Keep only in original packaging. |
| P260 | Do not breathe dust, fume, gas, mist, vapours or spray. |
| P261 | Avoid breathing dust, fume, gas, mist, vapours or spray. |
| P264 | Wash hands and face thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves, protective clothing, and eye/face protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor. |
| P321 | Specific treatment (see first-aid information on this label). |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT | % MIN | % MAX | CAS # | EINECS# / ELINCS# | FORMULA | MOLECULAR WEIGHT |
|--------------------|-------|-------|-----------|-------------------|--------------------|------------------|
| Ammonium Hydroxide | 20 | 20 | 1336-21-6 | 215-647-6 | NH ₄ OH | 35.05 g/mol |
| Water | 80 | 80 | 7732-18-5 | 231-791-2 | H ₂ O | 18.02 g/mol |

4. FIRST-AID MEASURES

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| Eyes | Refer to the "General First Aid" section. Specific First Aid: For corrosives, in case of contact, immediately flush skin or eyes with running water for at least 30 minutes. Additional flushing may be required. (ERG, 2024) |
| Skin | Remove contaminated clothes. Rinse skin with plenty of water or shower for at least 15 minutes. Refer immediately for medical attention . |
| Inhalation | · Administer oxygen if breathing is difficult. |
| Ingestion | -- DO NOT perform mouth-to-mouth resuscitation; the victim may have ingested or inhaled the substance. |

5. FIRE-FIGHTING MEASURES

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| Suitable Media | Dry chemical, CO ₂ , water spray. Use water spray to cool containers. |
| Unsuitable Media | Do not use a solid water stream as it may scatter and spread fire. |
| Protective Equipment | Wear self-contained breathing apparatus and full protective clothing. |
| Combustion Products | May include carbon oxides and other toxic fumes. See Section 10. |

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions | Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. |
| Environmental | Prevent leakage or spillage from entering drains, sewers, or waterways. |
| Containment & Cleanup | Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations. |

7. HANDLING AND STORAGE

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| Safe Handling | Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use. |
| Safe Storage | Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

No established occupational exposure limits.

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| Eyes | Wear chemical safety goggles or face shield. |
| Skin | Wear chemical-resistant gloves and protective clothing. |
| Inhalation | For mist or aerosol applications (e.g., spray, atomization, pressure washing), use a NIOSH-approved half-face air-purifying respirator with combination acid gas / P100 cartridges. For dust exposure, an N95 or P100 particulate filter is acceptable. Ensure local exhaust ventilation. |

Exposure limits sourced from NIOSH Pocket Guide and OSHA 29 CFR 1910.1000. Hazard classification from ECHA Classification and Labelling Inventory (CLP Annex VI).

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance | Clear, colorless liquid with strong ammonia odor |
| Odor | Characteristic |
| Median Particle Size | Not Applicable |
| Particle Size Distribution | Not Applicable |
| Particle Shape | Not Applicable |
| Surface Area | Not Applicable |
| Dustiness | Not Applicable |
| Hygroscopicity | Not Applicable |
| pH | Not Available |
| Melting Point | -57.5°C |
| Boiling Point | 38°C |
| Flash Point | Not Available |
| Vapor Pressure | Not Available |
| Specific Gravity | 0.92 |
| Solubility | Fully soluble in water |
| Molecular Formula | NH ₄ OH |
| Molecular Weight | 35.05 g/mol |

10. STABILITY AND REACTIVITY

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| Chemical Stability | Stable under recommended storage conditions. |
| Hazardous Reactions | None under normal processing conditions. |
| Conditions to Avoid | Heat, sparks, open flame, and incompatible materials. |
| Incompatible Materials | Strong acids, strong bases, reactive metals, water (for some concentrated forms). |
| Decomposition Products | May produce carbon oxides and other toxic fumes when heated to decomposition. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

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| IARC | Not listed as carcinogen. |
| NTP | Not listed as carcinogen. |
| OSHA | Not listed as carcinogen. |

12. ECOLOGICAL INFORMATION

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| Ecotoxicity | Data not available. Avoid release to the environment. |
| Persistence | Not Available |
| Bioaccumulation | Not Available |
| Mobility in Soil | Not Available |

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

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| US DOT | UN2672, Ammonia solution, 8, PG III |
| IMDG | UN2672, Ammonia solution, 8, PG III |
| IATA/ICAO | UN2672, Ammonia solution, 8, PG III |
| Marine Pollutant | No |

15. REGULATORY INFORMATION

Regulatory listings not yet on file in this system; consult OSHA, EPA TSCA, EPCRA TRI, and California OEHHA directly.

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| SARA 311/312 | See Section 2 for hazard classifications. |
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16. OTHER INFORMATION

Revision Date: 05/28/2026

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