SAFETY DATA SHEET AMMONIA SOLUTION 25%

1: Chemical Product Identification

Trade Name:	AMMONIA SOLUTION 25%
CAS#:	1336-21-6
Synonym:	Aqueous Ammonia; Strong Ammonia Solution; Stronger Ammonia Water
Chemical Name:	Ammonium hydroxide solution 25%

2. Composition and Information on Ingredients

NAME:	Ammonia, anhydrous water
CAS #:	1336-21-6
EC #:	215-647-6
Index #:	007-001-02
%W/W:	25%
Hazard statements:	H314 H335 H400

3: Hazards Identification

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Classification	Skin corrosion/irritation Category 1A
Specific target organ toxicity – single exposure	Category 3
Short-term (acute) aquatic hazard	Category 1

Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms:



Signal word:	Danger
Hazard statements:	H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.

Precautionary statements

Prevention	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash the contact area thoroughly after handling.

Response	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.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302 + P310	IF ON SKIN: Immediately call a POISON CENTER or doctor/ physician.

Storage	P405 Store locked up.
Disposal	P501 Dispose of contents/ container to an approved waste disposal plant.
Other hazards	None known

4: First Aid Measures

Description of necessary first-aid measures

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical

attention.

Skin contact	Take off contaminated clothing and shoes immediately. Wash

off immediately with plenty of water. Wash contaminated clothing before re-use. Consult a physician.

Eye contact	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	If swallowed, DO NOT induce vomiting unless directed to do so

by medical personnel. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms/effects, acute and delayed

Refer to SECTION 11

5: Fire and Explosion Data

Suitable extinguishing media	Water spray. Foam Dry chemical
Unsuitable extinguishing media	Do NOT use water jet.
Special hazards arising from the substance or mixture	Exposure to decomposition products may be a hazard to health
Special protective equipment for firefighters	Use personal protective equipment.

6: Accidental Release Measures

Personal precautions	Use personal protective equipment
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for cleaning up	The material taken up must be disposed of in accordance with regulations.
Reference to other sections	Refer to section 8 and 13

7: Handling and Storage

Safe handling advice	Avoid contact with skin and eyes. Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice.
Advice on protection against fire and explosion	No data available
Requirements for storage areas and containers	Keep tightly closed.
Advice on common storage	No data available

8: Exposure Controls/Personal Protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	Approved/certified vapour respirator.
Hand protection	Gloves suitable for permanent contact: Material: butyl-rubber

Break through time: 4 h

Material thickness: 0.5 mm

Eye protection	Splash goggles
Skin and body protection	Chemical resistant protective suit. Chemical resistant safety boots.
Hygiene measures	Wash hands before breaks and immediately after handling the product.

9: Physical and Chemical Properties

Information on basic physical and chemical properties

Form	Liquid
State of matter	Liquid; at 20 °C; 1,013 hPa
Colour	Colourless
Odour	Pungent
Odour Threshold	No data available
pH	12
Melting point/range	No data available
Boiling point/boiling range	36 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Auto-ignition temperature	651.1 °C
Lower explosion limit	16 %(V); Lower flammability limit
Upper explosion limit	25 %(V); Upper flammability limit
Vapour pressure	796 hPa; 20 °C
Relative vapour density	0.6(Air = 1.0)
Water solubility	Completely soluble, completely miscible

Section 10: Stability and Reactivity Data

Reactivity	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None known.
Conditions to avoid	Heat, flames, and sparks.
Materials to avoid	Oxidizing agents. Acids
Hazardous decomposition products	Ammonia gas may be liberated at high temperatures. Nitrogen oxides (NOx).

11: Toxicological Information

Acute inhalation toxicity	Ammonia, aqueous solution:

LC50 Mouse: vapour; 2115 ppm; (literature value)

Skin irritation	Corrosive to skin
Eye irritation	Ammonia, aqueous solution:

Rabbit: Highly irritating

12: Ecological Information

Toxicity to daphnia and other aquatic invertebrates	Very toxic to aquatic organisms.

13: Disposal Considerations

Product	Disposal should be in accordance with local, regional, and national legislations.
Packaging	Dispose of spent product packaging responsibly and lawfully with due consideration for health, safety and the environment.

14: Transport Information

DG Pictogram



ADR

UN number:	2672
Class:	8
Packaging group:	III; C5;
Proper shipping name:	AMMONIA SOLUTION

RID

UN number:	2672
Class:	8
Packaging group:	III; C5
Proper shipping name:	AMMONIA SOLUTION

ADNR

UN number:	2672
Class:	8
Packaging group:	III; C5
Proper shipping name:	AMMONIA SOLUTION

IMDG

UN number:	2672
Class:	8
EMS:	F-A, S-B; IMDG Page: 18
Packaging group:	III; Marine pollutant
Proper shipping name:	AMMONIA SOLUTION

ICAO/IATA

UN number:	2672
Class:	8
Packaging group:	III
Proper shipping name:	AMMONIA SOLUTION

15: Other Regulatory Information

Safety, health, and environmental regulations/legislation specific for the substance or mixture

USA TSCA Inventory	All chemical constituents are listed in: USA TSCA Inventory

(See chapter 3)

Canadian Domestic Substances	All chemical constituents are listed in: Canadian

List (DSL)	Domestic Substances List (DSL) (See chapter 3)
Australian Inv. of Chem. Substances (AICS)	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
New Zealand Inventory of Chemicals (NZIoC)	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
Jap. Inv. of Exist. & New Chemicals (ENCS)	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
Korea. Existing Chemicals Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
China Inv. Existing Chemical Substances (IECSC)	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)

16: Other Information

Full text of H-Statements

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety, and environmental hazards at the date of issue, to facilitate the safe receipt, use and handling of this product in the workplace and does not replace any product information or product specifications. Since NuVest Chemicals and its subsidiaries cannot anticipate or control all conditions under which this product may be handled, used, and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which this product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place with respect to health and safety.

This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler, or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of this product.

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