

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 02.02.2021

Version No: 6

Revision: 01.02.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** 19 % Aqua Ammonia
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:**
Chemical has an application for reducing NOx from Flue gases i.e. as De-NOx reducing agent.
- **Uses advised against:** No further relevant information available.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** Qatar
Fertiliser Company P.O. Box
50001, Mesaieed, Qatar Tel.:
(+974) 44228888
Fax: (+974) 44770347
Email: mktg@qafco.com.qa
- **1.4 Emergency telephone number:**
For Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-741-5970 and +1-703-527-3887 (collect calls accepted)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Corr. 1A H314 Causes severe skin burns and eye damage. Eye Dam. 1 H318 Causes serious eye damage.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
C; Corrosive
R34: Causes burns.
.....
Xn; Harmful
R20: Harmful by inhalation.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05



GHS07

- **Signal word** Danger

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Hazard-determining components of labelling:

ammonia, anhydrous

Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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/doctor.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not determined

vPvB: Not determined









SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description:

CAS: 7732-18-5	water, distilled, conductivity or of similar purity	75.0 - 85.0%
EINECS: 231-791-2		

Dangerous components:

CAS: 7664-41-7	ammonia, anhydrous	15.0 - 25.0%
EINECS: 231-635-3	 T R23;  C R34;  N R50	
Index number: 007-001-00-5	R10	
Reg.nr.: 01-2119488876-14-XXXX	 Acute Tox. 3, H331;  Skin Corr. 1B, H314;	
	 Aquatic Acute 1, H400;  Flam. Gas 2, H221;  Press. Gas C, H280	

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take affected persons out of danger area and lay down.

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately rinse with water.

Seek medical treatment.

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- **After eye contact:**
Rinse opened eye for several minutes under running water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Seek medical treatment.
- **After swallowing:**
Do NOT induce vomiting.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Hazards** Danger of pulmonary oedema.
- **4.3 Indication of any immediate medical attention and special treatment needed**
May drink orange juice, citrus juice or diluted vinegar(1:4) to counter ammonia.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Ammonia (NH₃)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Use neutralising agent.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

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- **Information about fire and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
Store in a cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

7664-41-7 ammonia, anhydrous (24.0%)

WEL	Short-term value: 25 mg/m ³ , 35 ppm Long-term value: 18 mg/m ³ , 25 ppm
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· 8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed. Do not eat, drink or smoke when using this product. Immediately remove all soiled and contaminated clothing. Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter K

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves** Butyl rubber, BR Fluorocarbon rubber (Viton)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Value for the permeation: Level \geq 8 h

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The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Liquid
· Colour:	Colourless
· Odour:	Pungent
· Odour threshold:	~ 5 ppm

· **pH-value:** 13 +

· **Change in condition**

· Melting point/Melting range:	~ -30 °C
· Boiling point/Boiling range:	52.3 °C

· **Flash point:** Not determined.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 630 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· Lower:	15.0 Vol %
· Upper:	30.2 Vol %

· **Oxidising properties** No

· **Vapour pressure at 20 °C:** 23 hPa

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **9.2 Other information** No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability** No decomposition if used and stored according to specifications.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
Hazardous thermal decomposition products are ammonia and oxides of nitrogen.
- **10.3 Possibility of hazardous reactions** Reacts with acids.
- **10.4 Conditions to avoid**
Copper, aluminium and zinc alloys, acrolein, mineral acids, dimethylsulphate, mercury, chlorine, silver.
- **10.5 Incompatible materials:**
Strong oxidizing agents
Reducing agent
Reacts with certain metals.
Alkaline materials (bases)
Corrodes copper and brass.
Will corrode a wide variety of metals.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:**
Contact your sales representative or a metallurgical specialist to ensure compatibility with system equipment.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

7664-41-7 ammonia, anhydrous

Oral	LD50	350 mg/kg (Rat)
Inhalative	LC50 (4h)	2000 mg/l (Rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information

- **12.1 Toxicity**

· **Aquatic toxicity:**

7664-41-7 ammonia, anhydrous EC50

(48h) 24.4 - 189 mg/l (Daphnia) LC50
(96h) < 1.00 mg/l (Fish)

- **12.2 Persistence and degradability** biodegradable

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- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
 Danger to drinking water if even small quantities leak into the ground.
 Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not determined
- **vPvB:** Not determined
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Waste disposal key:** EWC: 06 02 03 * ammonium hydroxide
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|--------------------------------|
| · 14.1 UN-Number | UN2672 |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | |
| · ADR | 2672 AMMONIA SOLUTION |
| · IMDG, IATA | AMMONIA SOLUTION |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 8 Corrosive substances. |
| · Label | 8 |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | III |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Warning: Corrosive substances. |
| · Danger code (Kemler): | 80 |

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- | | |
|--|--|
| · EMS Number: | F-A,S-B |
| · Segregation groups | Alkalis |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | No further relevant information available. |
| · UN "Model Regulation": | UN2672, AMMONIA SOLUTION, 8, III |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Disclaimer clause

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used with caution.

· Relevant phrases

- H221 Flammable gas.
- H280 Contains gas under pressure; may explode if heated.
- H314 Causes severe skin burns and eye damage.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.

- R10 Flammable.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R50 Very toxic to aquatic organisms.

· Department issuing SDS:

- Production Deptt.
- QAFCO Fertiliser Company
- P.O. Box 50001, Mesaieed, Qatar
- Tel.: (+974) 44228888
- Fax: (+974) 44770347

· Abbreviations and acronyms:

- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships
- IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
- UN: United Nations (also UNO: United Nations Organization)
- NOEC: No Observed Effect Concentration
- OECD: Organisation for Economic Co-operation and Development
- ASTM: American Society for Testing and Materials
- WAF: Water Accommodated Fraction
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 2: Flammable gases, Hazard Category 2
Press. Gas C: Gases under pressure: Compressed gas
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

· * **Data compared to the previous version altered.**

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