

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

AMMONIA 24% TECH / CAN 19 KG

Version 1.1

Print Date 27.11.2012

Revision date / valid from 26.11.2012

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name : AMMONIA 24% TECH / CAN 19 KG
Substance name : ammonia
Index-No. : 007-001-01-2
CAS-No. : 1336-21-6
EC-No. : 215-647-6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.
Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag Nordic A/S
Borupvang 5 B
DK 2750 Ballerup
Telephone : +45 43 29 28 00
Telefax : +45 43 29 27 00
E-mail address : SDS.DK@brenntag-nordic.com
Responsible/issuing person : Environment & Quality

1.4. Emergency telephone number

Emergency telephone number : In case of personal injury call:
Denmark: 82 12 12 12 Giftlinien, Bispebjerg Hospital
Finland: Poison Information Centre: (09) 471 977 (direct) or (09) 47 11 (exchange), open 24h/day
Norway: 22 59 13 00 Giftinformasjonen (døgnåpent)
Sweden: +46-8-331231 Giftinformationscentralen (24 hour service)
Outside these countries: Please call your local emergency services

Section 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

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REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Skin corrosion	Category 1B	---	H314
Specific target organ toxicity - single exposure	Category 3	---	H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC


Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Corrosive (C)	R34

For the full text of the R-phrases mentioned in this Section, see Section 16.

Most important adverse effects

- Human Health : The product causes burns of eyes, skin and mucous membranes.
- Physical and chemical hazards : In case of fire hazardous decomposition products may be produced such as: nitrogen oxides
- Potential environmental effects : Harmful effects to aquatic organisms also due to pH-shift.

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008

- Hazard symbols : 
- Signal word : Danger
- Hazard statements : H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
- Precautionary statements
- Prevention : P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response : P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

Hazardous components which must be listed on the label:

II • ammonia

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical nature : Ammonia solution

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
ammonia				
Index-No. : 007-001-01-2		Skin Corr.1B	H314	Corrosive; C; R34 Dangerous for the environment; N; R50
CAS-No. : 1336-21-6		Aquatic Acute1	H400	
EC-No. : 215-647-6	24	STOT SE3	H335	

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: First aid measures

4.1. Description of first aid measures

General advice : Take off all contaminated clothing immediately.

If inhaled : In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

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- In case of skin contact : Wash off immediately with soap and plenty of water. Call a physician immediately.
- In case of eye contact : Rinse immediately with plenty of water (tempered water), also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms : See Section 11 for more detailed information on health effects and symptoms.
- Effects : See Section 11 for more detailed information on health effects and symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Fire may cause evolution of: nitrogen oxides (NO_x)

5.3. Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Further information : Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise - with risk of bursting. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment. Keep people away from and upwind of spill/leak. Provide adequate ventilation. Avoid

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contact with skin and eyes. Do not breathe vapours or spray mist.

6.2. Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

Section 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed. Use personal protective equipment. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol are released. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in an area equipped with alkali resistant flooring. Store in original container.

Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Keep away from direct sunlight.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Do not store near acids.

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7.3. Specific end use(s)

Specific use(s) : No information available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Component:	ammonia	CAS-No.	1336-21-6
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Other Occupational Exposure Limit Values

EU ELV, Time Weighted Average (TWA):
20 ppm, 14 mg/m³
Indicative

EU ELV, Short Term Exposure Limit (STEL):
50 ppm, 36 mg/m³
Indicative

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).
In case of brief exposure or low pollution use breathing filter apparatus.
Recommended Filter type:K
In case of intensive or longer exposure use self-contained breathing apparatus.

Hand protection

Advice : The glove material has to be impermeable and resistant to the product / the substance / the preparation.
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.
The following materials are suitable:

Material : butyl-rubber
Break through time : ≥ 8 h
Glove thickness : 0,5 mm

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Material : fluorocarbon rubber
Break through time : ≥ 8 h
Glove thickness : 0,4 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : alkali resistant protective clothing

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
If the product contaminates rivers and lakes or drains inform respective authorities.
If material reaches soil inform authorities responsible for such cases.

Section 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form : liquid
Colour : colourless
Odour : ammoniacal
Odour Threshold : 5 ppm
pH : ca. 12 (280 g/l; 20 °C)
Melting point/range : < 0 °C
Boiling point/boiling range : ca. 37 °C
Flash point : not applicable
Evaporation rate : not applicable
Flammability (solid, gas) : no data available
Upper explosion limit : ca. 28 %(V)
Ammonia, gas
Lower explosion limit : ca. 15 %(V)
Ammonia, gas
Vapour pressure : ca. 480 hPa (20 °C)

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Relative vapor density	:	no data available
Density	:	ca. 0,91 g/cm ³ (20 °C)
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	ca. 630 °C Ammonia
Thermal decomposition	:	not applicable
Viscosity, dynamic	:	no data available
Explosivity	:	no data available
Oxidizing properties	:	not oxidising

9.2. Other information

No further information available.

Section 10: Stability and reactivity**10.1. Reactivity**

Advice : Stable under recommended storage conditions.

10.2. Chemical stability

Advice : Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Corrosive in contact with metals Exothermic reaction with:
Acids

10.4. Conditions to avoid

Conditions to avoid : Heat.
Thermal decomposition : not applicable

10.5. Incompatible materials

Materials to avoid : Aluminium, Zinc, Acids

10.6. Hazardous decomposition products

Hazardous decomposition products : No information available.

Section 11: Toxicological information

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11.1. Information on toxicological effects

Acute toxicity

Inhalation

Inhalation may cause pain in respiratory system, sneezing, coughing and difficulty in breathing. Risk for pulmonary edema by high concentration.
 Inhalation of vapour in high concentration may cause unconsciousness.
 Inhalation of aerosols/vapours may during a couple of hours cause liquid in the lungs (edema).

Irritation

Skin

Result : May cause burns with pain, redness and wounds.

Eyes

Result : Splashes in the eyes may cause painful burns, which may result in permanent damage to the eyes.

Section 12: Ecological information

12.1. Toxicity

Component:	ammonia	CAS-No.
		1336-21-6

Acute toxicity

Fish

LC50 : 0,53 mg/l (Oncorhynchus mykiss; 96 h)

LC50 : 0,75 - 3,4 mg/l (Pimephales promelas; 96 h)

Toxicity to daphnia and other aquatic invertebrates

EC50 : 24 mg/l (Daphnia magna; 48 h)

Bacteria

EC50 : 2 mg/l (Photobacterium phosphoreum; 5 min)

12.2. Persistence and degradability

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Persistence and degradability
Persistence

Result : no data available

Component:	ammonia	CAS-No.
		1336-21-6

Persistence and degradability
Biodegradability

Result : < 70 % (Exposure Time: 28 d)
Not readily biodegradable.

12.3. Bioaccumulative potential

Component:	ammonia	CAS-No.
		1336-21-6

Bioaccumulation

Result : Bioaccumulation is not expected.

12.4. Mobility in soil

Component:	ammonia	CAS-No.
		1336-21-6

Mobility

Water : The product is mobile in water environment.

12.5. Results of PBT and vPvB assessment

Component:	ammonia	CAS-No.
		1336-21-6

Results of PBT and vPvB assessment

Result : No information available.

12.6. Other adverse effects
Additional ecological information

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Result : Harmful effects to aquatic organisms due to pH-shift.
Neutralization is normally necessary before waste water is discharged into water treatment plants.
Do not flush into surface water or sanitary sewer system.

Section 13: Disposal considerations

13.1. Waste treatment methods

Product : Eliminate waste in conditions authorized by the regulations. Store waste in containers provided for this purpose. Do not dump in drains, water sheets or the ground.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

Section 14: Transport information

14.1. UN number

2672

14.2. UN proper shipping name

ADR : AMMONIA SOLUTION
RID : AMMONIA SOLUTION
IMDG : AMMONIA SOLUTION

14.3. Transport hazard class(es)

ADR-Class : 8
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 8; C5; 80; (E)

RID-Class : 8
(Labels; Classification Code; Hazard identification No) 8; C5; 80

IMDG-Class : 8
(Labels; EmS) 8; F-A, S-B

14.4. Packaging group

ADR : III
RID : III
IMDG : III

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14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR	: no
Labeling according to 5.2.1.8 RID	: no
Labeling according to 5.2.1.6.3 IMDG	: no
Classification as environmentally hazardous according to 2.9.3 IMDG	: no
Classified as "P" according to 2.10 IMDG	: no

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

no data available

Section 16: Other information

Full text of R-phrases referred to under sections 2 and 3.

R34	Causes burns.
R50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3.

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

Further information

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

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|| Indicates updated section.