

Ammonia Anhydrous

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Ammonia (anhydrous)
CAS No. 7664-41-7
EC No. 231-635-3
REACH Registration No. 01-2119488876-14-xxxx

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

Identified Use(s) General industrial, technical and chemical use and as advised by the supplier.
Uses Advised Against Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Supplier
Company Identification Blended Products Limited
Address of Supplier Elsham Wold Industrial Estate
Brigg
North Lincolnshire
Postal code DN20 0SP
Telephone: +44 (0) 1652 680555
E-mail technical@blendedproducts.com

1.4 Emergency telephone number

Emergency Phone No. +44 (0) 1652 680555 (please use 'Option 4' for 24hr chemical/stock emergency number)
Contact Please see above.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Flam. Gas 2 :Flammable gas.
Press. Gas :Contains gas under pressure; may explode if heated.
Press. Gas (Liquefied gas.) :Contains gas under pressure; may explode if heated.
Skin Corr. 1B :Causes severe skin burns and eye damage.
Eye Dam. 1 :Causes serious eye damage.
Acute Tox. 3 :Toxic if inhaled.
Aquatic Acute 1 :Very toxic to aquatic life.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)
Product Name Ammonia (anhydrous)

Hazard Pictogram(s)



Ammonia Anhydrous

Signal Word(s)	Danger
Hazard Statement(s)	<p>H221: Flammable gas.</p> <p>H280: Contains gas under pressure; may explode if heated.</p> <p>H314: Causes severe skin burns and eye damage.</p> <p>H331: Toxic if inhaled.</p> <p>H400: Very toxic to aquatic life.</p>
Precautionary Statement(s)	<p>P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P261: Avoid breathing gas.</p> <p>P264: Wash thoroughly after handling.</p> <p>P271: Use only outdoors or in a well-ventilated area.</p> <p>P273: Avoid release to the environment.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310: Immediately call a POISON CENTER/doctor.</p> <p>P363: Wash contaminated clothing before reuse.</p> <p>P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely.</p> <p>P381: In case of leakage, eliminate all ignition sources.</p> <p>P391: Collect spillage.</p> <p>P403: Store in a well-ventilated place.</p> <p>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents in accordance with local, state or national legislation.</p>

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)

Ammonia Anhydrous

ammonia, anhydrous	7664-41-7	231-635-3 01-2119488876-14-xxxx	100	Flam. Gas 2 H221 Press. Gas H280 Skin Corr. 1B H314 Acute Tox. 3 H331 Aquatic Acute 1 H400	GHS04 GHS06 GHS05 GHS09
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3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media	As appropriate for surrounding fire.
Unsuitable extinguishing media	None.

5.2 Special hazards arising from the substance or mixture

Flammable gas Contains gas under pressure; may explode if heated. Explosion risk.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Wear appropriate personal protective equipment, avoid direct contact.

6.2 Environmental precautions

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Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Collect spillage. In event of a spill, consult an expert. Evacuate the area. Allow small spillages to evaporate provided there is adequate ventilation.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing gas. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Not known.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Ammonia, anhydrous	7664-41-7	25	18	35	25	
Ammonia, anhydrous	7664-41-7	20	14	50	36	IOELV

Region	Source
EU	EU Occupational Exposure Limits
United Kingdom	UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark	Notes
IOELV	Indicative Occupational Exposure Limit Values.

8.2 Exposure controls

8.2.1. Appropriate engineering controls Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

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8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection

A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards

None known.

8.2.3. Environmental Exposure Controls

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Gas.
	Colour : Colourless
Odour	Pungent, Ammoniacal.
Odour threshold	5 ppm
pH	0.58 g/cm ³ as liquified gas
Melting point/freezing point	-77.8 °C (-108.04 °F) @ 1013 Pa
Initial boiling point and boiling range	-33.3 °C (-27.94 °F) @ 1013 Pa
Flash Point	Not applicable.
Evaporation rate	Not known.
Flammability (solid, gas)	Flammable gas
Upper/lower flammability or explosive limits	lower: 16.00 % v/v upper: 27.00 % v/v
Vapour pressure	8.6 bar @ 20°C
Vapour density	0.6 (Air = 1)
Density (g/ml)	0.58 g/cm ³ as liquified gas
Relative density	0.6 (Water= 1)
Solubility(ies)	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	630 °C (1166 °F)
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not explosive within the meaning of this term, but this is a flammable gas.
Oxidising properties	Not oxidising

9.2 Other information

None.

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.
Can react violently if in contact with acids, alkalis, reducing agents and heavy metals. This product may react with oxidizing agents.

10.4 Conditions to avoid

Keep away from heat and direct sunlight, avoid contact with incompatible materials.

10.5 Incompatible materials

Acids. Strong oxidising agents. Copper, copper alloy, Zinc, zinc alloy.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours : nitrogen dioxide, nitric oxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Not classified.
Acute toxicity - Skin Contact	Not classified.
Acute toxicity - Inhalation	Toxic if inhaled.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

11.2 Other information

Not known.

SECTION 12: ECOLOGICAL INFORMATION

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12.1 Toxicity

Very toxic to aquatic life.

Toxicity - Aquatic invertebrates	Not known.
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Normal disposal is via incineration operated by an accredited disposal contractor.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No. 1005

14.2 UN proper shipping name

UN proper shipping name AMMONIA, ANHYDROUS

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 2

ADR Classification Code 2TC

Special Provisions 23 379

Limited Quantities

Excepted Quantities E0

Emergency Action Code 2XE

Mixed Packing Instructions for Packages P200

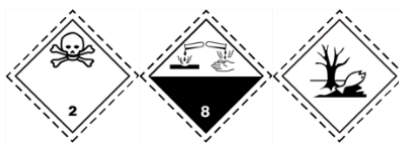
Special Packing Provisions for Packages

Mixed Packing Instructions for Packages MP9

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Packing Instructions for Portable Tanks	(M) T50
Special Provisions for Portable Tanks	
Tank Code for Tanks	PxBH(M)
Special Provisions for Tanks	TA4 TT8 TT9
Vehicle for Tank Carriage	AT
ADR Transport Category	1
Tunnel Restriction Code	C/D
Special Provisions for Carriage - Packages	
Special Provisions for Carriage - Bulk	
Special Provisions for Carriage - Loading, CV9 CV10 CV36	
Unloading and Handling	
Special Provisions for Carriage - Operation	S14
ADR HIN	268
IMDG	
IMDG Class	2.3
Special Provisions	23 379
Limited Quantities	
Excepted Quantities	E0
Mixed Packing Instructions for Packages	P200
Special Packing Provisions for Packages	
Packing Instructions for Portable Tanks	(M) T50
Special Provisions for Portable Tanks	
IMDG EMS	F-C, S-U
Stowage and Handling	Category D SW2
Segregation	SG35 SG46 SGG18
Marine Pollutant	P
ICAO/IATA	
IATA Proper Shipping Name	AMMONIA, ANHYDROUS
Excepted Quantities	
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Forbidden for transport by air.
Passenger and Cargo Aircraft Limited Quantities Max net Qty	Forbidden for transport by air.
Passenger and Cargo Aircraft Packing Instructions	Forbidden for transport by air.
Passenger and Cargo Aircraft Max net Qty	Forbidden for transport by air.
Cargo Aircraft Packing Instructions	Forbidden for transport by air.
Cargo Aircraft Max net Qty	Forbidden for transport by air.
Special Provisions	A2
Emergency Response Guidebook (ERG) Code	2CP
Labels	
Labels	2.3 +8

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14.4 Packing group

Packing group

14.5 Environmental hazards

Environmental hazards

Classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user

This product is classed as high consequence dangerous goods (HCDG) in accordance with ADR Chapter 1.10.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not anticipated.

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles ammonia, anhydrous (7664-41-7)

Community Rolling Action Plan (CoRAP) Not listed

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

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National regulations

Other Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Ammonia Anhydrous

Hazard Pictogram(s)



GHS06



GHS05



GHS09



GHS04: Gas cylinder (display is optional)

Hazard classification

Flam. Gas 2 : Flammable gas, Category 2

Press. Gas : Gases under pressure

Press. Gas (Liquefied gas.) : Contains gas under pressure

Skin Corr. 1B : Skin corrosion/irritation, Category 1B

Eye Dam. 1 : Serious eye damage/irritation, Category 1

Acute Tox. 3 : Acute toxicity, Category 3

Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1

Hazard Statement(s)

H221: Flammable gas.

H280: Contains gas under pressure; may explode if heated.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H331: Toxic if inhaled.

H400: Very toxic to aquatic life.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P261: Avoid breathing gas.

P264: Wash 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/eye protection/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.

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/doctor.

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P311: Call a POISON CENTER/doctor.
P321: Specific treatment (see Medical Advice on this label).
P363: Wash contaminated clothing before reuse.
P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381: In case of leakage, eliminate all ignition sources.
P391: Collect spillage.
P403: Store in a well-ventilated place.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P410+P403: Protect from sunlight. Store in a well-ventilated place.
P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

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