

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

## 1.1. Product identifier

Name of the substance	Ammonia (Anhydrous)
Identification number	-
Registration number	-
Synonyms	None.
Issue date	26-February-2016
Version number	01

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

Identified uses	General industrial, chemical, technical use
Uses advised against	None known

## 1.3. Details of the supplier of the safety data sheet

Company name	Blended Products Limited
Address	Plot11b Elsham Wold Industrial Estate Brigg, North Lincolnshire DN20 0SP UK
Telephone	01652 680555
Fax	
e-mail	sales@blendedproducts.co.uk
Website	www.blendedproducts.co.uk

1.4 Emergency telephone +44(0)1652 680555 (Please use 'Option 4' for 24hr chemical / stock emergency number assistance)

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

## Physical hazards

Flammable gases (including chemically unstable gases)

Category 2

H221 - Flammable gas.

Gases under pressure

Compressed gas

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

## Health hazards

Acute toxicity, inhalation

Category 3

H331 - Toxic if inhaled.

Skin corrosion/irritation

Category 1B

H314 - Causes severe skin burns and eye damage.

## Environmental hazards

Hazardous to the aquatic environment, acute aquatic hazard

Category 1

H400 - Very toxic to aquatic life.

## Hazard summary

Flammable gas - may cause flash fire. Contents under pressure. Heat may cause the containers to explode. Toxic if inhaled. Causes severe skin burns and eye damage. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

## 2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:

Ammonia, Anhydrous



Hazard pictograms

Signal word

Danger

Hazard statements

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.

## Precautionary statements

Prevention

P210

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

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.

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/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 CENTRE/doctor/first aid.

Material name: Ammonia (Anhydrous)

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P363 Wash contaminated clothing before reuse.  
 P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
 P381 Eliminate all ignition sources if safe to do so.  
 P391 Collect spillage.

Storage

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.

Disposal

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

Supplemental label information None.

2.3. Other hazards Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn").

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Ammonia, Anhydrous	100	7664-41-7 231-635-3	01-2119488876-14-xxxx	007-001-00-5	#
Classification:	Flam. Gas 2;H221, Press. Gas;H280, Skin Corr. 1B;H314, Acute Tox. 3;H331, Aquatic U Acute 1;H400				

List of abbreviations and symbols that may be used above

#: This substance has been assigned Community workplace exposure limit(s).  
 PBT: persistent, bioaccumulative and toxic substance.  
 vPvB: very persistent and very bioaccumulative substance.  
 M: M-factor  
 Note U: Refer to CLP Regulation 1272/2008, section 1.1.3.1 (Notes relating to the identification, classification and labelling of substances)

Composition comments The full text for all H-statements is displayed in section 16. SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. 4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTRE or doctor/physician.

Skin contact In case of contact with liquefied gas, thaw frosted parts with lukewarm water. Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

Ingestion	Not likely, due to the form of the product. Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
4.2. Most important symptoms and effects, both acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
4.3. Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

General fire hazards	Flammable gas. Contents under pressure. Pressurised container may explode when exposed to heat or flame.
5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Use water spray to 'knock down' vapour or cool containers. Allow gas to burn if flow cannot be shut off immediately.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed. Decomposition of this product may emit oxides of nitrogen. Do not allow the spilled product to enter public drainage system or open water courses.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. Do not direct water at source of leak or safety devices as icing may occur. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. 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

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapours or divert vapour cloud drift. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Prevent product from entering drains. Ensure adequate ventilation.

Large Spills: Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

Use water spray to reduce vapours or divert vapour cloud drift. Dike the spilled material, where this is possible. Prevent product from entering drains.

Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

7.1. Precautions for safe Only experienced and properly trained persons should handle compressed gases/cryogenic handling liquids. Please refer to Section 16 'Other Information' for full details

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop.

When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas.

Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

Do not get in eyes, on skin, or on clothing.

Avoid breathing gas. Avoid prolonged exposure.

Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

## 7.2. Conditions for safe storage, including any incompatibilities

Cylinders should be stored in a purpose built compound which should be well ventilated, preferably in the open air.

Observe all regulations and local requirements regarding storage of cylinders.

Cylinders should not be stored in conditions likely to encourage corrosion.

Cylinders should be stored in the vertical position and properly secured to prevent toppling. The container valves should be tightly closed and where appropriate valve outlets should be capped or plugged. Cylinder valve guards or caps should be in place.

Keep cylinders tightly closed in a cool well-ventilated place below 45°C and out of direct sunlight. Smoking should be prohibited within storage areas and while handling product or cylinders. Store locked up. Store in a cool, dry place out of direct sunlight. Keep away from heat, sparks and open flame.

This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 7.3. Specific end use(s)

The specified uses for this material are shown in section 1 of this document

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

25 ppm

### Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Ammonia, Anhydrous (CAS 7664-41-7)	STEL	mg/m3
		ppm
	TWA	mg/m3

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EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and

Components	Type	Value
Ammonia, Anhydrous (CAS 7664-41-7)	STEL	36 mg/m <sup>3</sup>
	TWA	50 ppm
		14 mg/m <sup>3</sup>
		20 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring Follow standard monitoring procedures. procedures

Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
Ammonia, Anhydrous (CAS 7664-41-7)	Industry	Dermal	6.8 mg/kg bw/day	Acute Local effects
		Dermal	6.8 mg/kg bw/day	Long term Systemic effects
		Inhalation	47.6 mg/m <sup>3</sup>	Acute Systemic effects
		Inhalation	47.6 mg/m <sup>3</sup>	Long term Systemic effects
		Inhalation	36 mg/m <sup>3</sup>	Acute Local effects
		Inhalation	14 mg/m <sup>3</sup>	Long term Local effects

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
Ammonia, Anhydrous (CAS 7664-41-7)	Not applicable	Water	0.0011 mg/l	freshwater
		Water	0.0011 mg/l	marine water

biological agents.

## 8.2. Exposure controls

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

General information	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Do not get in eyes. Wear safety glasses with side shields (or goggles) and a face shield. (EN166)
Skin protection	Face shield over safety glasses is recommended during cylinder connection.

- Hand protection	<p>Suitable gloves can be recommended by the glove supplier.</p> <p>Select suitable chemical resistant protective gloves (EN 374) with a protective index 6 (&gt;480min permeation time).</p> <p>Materials suitable for prolonged, direct contact:</p> <p>Butyl rubber (Butyl); Min. Breakthrough time:480 min; Glove thickness:0.7mm; Protection index 6</p> <p>Materials suitable for short-term contact and/or liquid splashes</p> <p>CR(Chloroprene, Polychloroprene rubber); Min. Breakthrough time:30 min; Glove thickness:0,5 mm Protection index: 2</p> <p>Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Replace damaged gloves.</p>
- Other	<p>Avoid contact with the skin. Wear appropriate chemical resistant clothing.and heavy duty work shoes</p> <p>Body protection should be selected based on the task being performed and the risks involved. If contact with the liquids is possible, an appropriate chemical suit should be worn.</p> <p>Guideline: EN 943: Protective clothing against liquid and gaseous chemicals, aerosols and solid particles.</p>
Respiratory protection	<p>Under normal conditions, respirator is not normally required.</p> <p>A suitable mask with filter type K (EN141 or EN405) may be appropriate, or self-contained breathing apparatus. Respiratory protection should be selected based on the task being performed and the risks involved</p> <p>Keep self contained breathing apparatus readily available for emergency use. Use SCBA in the event of high concentrations.</p>
Thermal hazards	<p>Wear appropriate thermal protective clothing, when necessary.</p>
Hygiene measures	<p>When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.</p>
Environmental exposure controls	<p>Inform appropriate managerial or supervisory personnel of all environmental releases.</p>

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state	Gas Liquid.
Form	Compressed gas.
Colour	Colourless.
Odour	Pungent suffocating odor; Ammoniacal.
Odour threshold	5 ppm
pH	> 12.0 (conc 100% v/v)
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 determined
Flammability (solid, gas)	Flammable gas.



#### Upper/lower flammability or explosive limits

Flammability limit - lower 16.00 % v/v

(%)

Flammability limit - upper 27.00 % v/v

(%)

Vapour pressure 8.6 bar @ 20°C

Vapour density 0.6 (Air = 1)

Relative density 0.6 (Water = 1)

#### Solubility(ies)

Solubility (water) 482 - 531 g/l

Solubility (other) Not available.

Partition coefficient (n-

octanol/water)

Auto-ignition temperature 630 °C (1166 °F)

Decomposition temperature Not available.

Viscosity Not applicable

Explosive properties Not explosive.

Oxidising properties Not oxidising.

#### 9.2. Other information

Density 0.58 g/cm<sup>3</sup> as liquified gas

### 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 Material is 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 Avoid heat, sparks, open flames and other ignition sources. 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

General information Occupational exposure to the substance or mixture may cause adverse effects. Information on likely routes of exposure

Inhalation Toxic if inhaled.

Skin contact Causes severe skin burns. Contact with liquefied gas might cause frostbites, in some cases with tissue damage.

Eye contact Causes serious eye damage.

Ingestion Causes digestive tract burns.

Symptoms Burning pain and severe corrosive skin damage. Causes serious eye damage.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

#### 11.1. Information on toxicological effects

Acute toxicity Toxic if inhaled.

Components	Species	Test results
Ammonia, Anhydrous (CAS 7664-41-7)		
Acute		
Inhalation		
LC50	Rat	13770 mg/m <sup>3</sup> , 60 minutes female
Components		
Species		
Test results		
9850 mg/m <sup>3</sup> , 60 minutes male		
Oral		
LD50	Rat	350 mg/kg

\* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.
Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity repeated exposure	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard	Not likely, due to the form of the product.
Mixture versus substance information	No information available.
Other information	Not available.

## SECTION 12: Ecological information

12.1. Toxicity	Very toxic to aquatic life. Information given is based on data on the components and the ecotoxicology of similar products.
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Components	Species	Test results
Ammonia, Anhydrous (CAS 7664-41-7)		
Aquatic	EC50	Aquatic plants 2.7 mg/l, 432 hours
	Crustacea	Daphnia 25.4 mg/l, 48 hours 0.79 mg/l, 4 days
		NOEC
Fish	LC50	Fish 0.048 mg/l, 31 days Oncorhynchus mykiss 0.16 - 1.1 g/l, 96 hours Silver carp (Hypophthalmichthys molitrix) 0.38 mg/l, 96 hours
		NOEC

\* Estimates for product may be based on additional component data not shown.

12.2. Persistence and degradability	The product is biodegradable.
12.3. Bioaccumulative potential	Does not bioaccumulate.
Partition coefficient n-octanol/water (log Kow)	Not applicable.
Ammonia (Anhydrous)	0.23
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	The substance has low mobility in soil. The substance is soluble in water.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Residual waste	Return unused or unwanted cylinders to the supplier. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.
Contaminated packaging	Empty or unwanted cylinders should be returned to the supplier. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

### SECTION 14: Transport information

#### ADR

14.1. UN number	UN1005
14.2. UN proper shipping name	Ammonia, Anhydrous
14.3. Transport hazard class(es)	
Class	2.3
Subsidiary risk	8
Label(s)	2.3 +8
Hazard No. (ADR)	268
Tunnel restriction code	C/D
14.4. Packing group	Not applicable.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

#### RID

Material name: Ammonia (Anhydrous)

SDS UK

14.1. UN number UN1005  
14.2. UN proper shipping name Ammonia, Anhydrous  
14.3. Transport hazard class(es)  
Class 2.3  
Subsidiary risk 8  
Label(s) 2.3+8 (+13)  
14.4. Packing group Not applicable.  
14.5. Environmental hazards No.  
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number UN1005  
14.2. UN proper shipping name Ammonia, Anhydrous  
14.3. Transport hazard class(es)  
Class 2.3  
Subsidiary risk 8  
Label(s) 2.3+8  
14.4. Packing group Not applicable.  
14.5. Environmental hazards No.  
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number UN1005  
14.2. UN proper shipping name Ammonia, Anhydrous  
14.3. Transport hazard class(es)  
Class 2.3  
Subsidiary risk 8  
14.4. Packing group Not applicable.  
14.5. Environmental hazards No.  
ERG Code 2CP  
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Forbidden  
Cargo aircraft only Forbidden

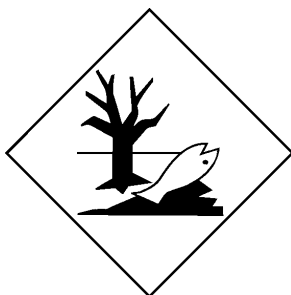
IMDG

14.1. UN number UN1005  
14.2. UN proper shipping name Ammonia, Anhydrous, Marine pollutant  
14.3. Transport hazard class(es)

Class	2.3
Subsidiary risk	8
14.4. Packing group	Not applicable.
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-C, S-U
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
ADN; ADR; IATA; IMDG; RID	



Marine pollutant



General information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

## SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended  
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended  
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry  
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed. Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended  
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use  
Not regulated.

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended  
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work  
Not listed.

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work  
Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding.

Not regulated.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances  
Ammonia, Anhydrous (CAS 7664-41-7)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.  
Ammonia, Anhydrous (CAS 7664-41-7)

Directive 94/33/EC on the protection of young people at work  
Ammonia, Anhydrous (CAS 7664-41-7)

Other regulations                      The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations                      Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment                      No Chemical Safety Assessment has been carried out.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes

Material name: Ammonia (Anhydrous)

SDS UK

Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## SECTION 16: Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	Not applicable.
Full text of any H-statements not written out in full under Sections 2 to 15	<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>
Revision information	None.
Training information	<p>Only trained persons should handle compressed gases.</p> <p>Observe all regulations and local requirements regarding the storage of containers.</p> <p>Do not remove or deface labels provided by the supplier for the identification of the container contents.</p> <p>Ascertain the identity of the gas before using it.</p> <p>Know and understand the properties and hazards associated with each gas before using it.</p> <p>When doubt exists as to the correct handling procedure for a particular gas contact the supplier.</p> <p>Follow training instructions when handling this material.</p>

Other information

BLENDED PRODUCTS LTD GENERAL INFORMATION FOR THE SAFE HANDLING OF COMPRESSED GAS

HANDLING: Wear stout gloves. Never lift a container by the cap or guard unless the supplier states it is designed for that purpose. Use a trolley or other suitable device or technique for transporting heavy containers, even for a short distance. Where necessary wear suitable eye and face protection . The choice between safety glasses, chemical goggles, or full face shield will depend on the pressure and nature of the gas being used. Where necessary for toxic gases see that self-contained positive pressure breathing apparatus or full face air line respirator is available in the vicinity of the working area. Employ suitable pressure regulating devices on all containers when the gas is being emitted to systems with a lower pressure rating than that of the container. Ascertain that all electrical systems in the area are suitable for service with each gas. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 45°C. Never re-compress a gas mixture without consulting the supplier. Never attempt to transfer gases from one container to another. Do not use containers as rollers or supports, or for any other purpose than to contain the gas as supplied. Never permit oil, grease or other readily combustible substances to come into contact with valves of containers containing oxygen or other oxidants. Keep container valve outlets clean and free from contaminants, particularly oil and water. Do not subject containers to abnormal mechanical shocks which may cause damage to their valves or safety devices. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Close the container valve whenever gas is not required even if the container is still connected to the equipment.

(Continued)

STORAGE: Containers should be stored in a well ventilated area. Some gases will require a purpose built area. Store containers in a location free from fire risk and away from sources of heat and ignition. Designation as a no smoking area may be desirable. Gas containers should be segregated in the storage area according to the various categories. The storage area should be kept clear and access should be restricted to authorized persons only , the area should be clearly marked as a storage area and appropriate hazard warning signs displayed (Flammable Toxic etc.). The amount of flammable or toxic gases should be kept to a minimum. Flammable gases should be stored away from other combustible materials. Containers held in storage should be periodically checked for general condition and leakage. Containers in storage should be properly secured to prevent toppling or rolling . Vertical storage is recommended where the container is designed for this. Container valves should be tightly closed and where appropriate, valve outlets should be capped or plugged. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Store full and empty containers separately and arrange full containers so that the oldest stock is used first.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Blended Products Limited cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.