

SAFETY DATA SHEET - CALIBRATION CHECK GAS

PRODUCT: 5% AMMONIA BALANCE AIR OR NITROGEN **PAGE:** 1/3
SDS NO: 003C **Version:** 2 **Date:** 30 October 2008

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

SDS NO: 003C
 Product Name: 5% Ammonia Balance Air or Nitrogen in cylinders (\geq 17 litres)
 Company Identification: See heading and/or footer

2. HAZARDS IDENTIFICATION

Hazards identification Compressed gas, toxic

3. COMPOSITION/INFORMATION OF INGREDIENTS

Substance/Preparation Preparation
 Composition/Impurities Contains no other components or impurities, which will influence the classification of the product

4. FIRST AID MEASURES

Inhalation Extremely strong odour. Harmful
 Ingestion Ingestion is not considered a potential route of exposure

5. FIRE-FIGHTING MEASURES

Fire-fighting measures These containers hold gas under pressure, with no liquid phase. If involved in a major fire, they should be sprayed with water to avoid pressure increases, otherwise pressures will rise and ultimately they may distort or burst to release the contents. The gases will not add significantly to the fire, but containers or fragments may be projected considerable distances - thereby hampering fire-fighting efforts.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures In terms of weight, these containers hold very little contents, such that any accidental release by puncturing etc. will be of no practical concern.

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7. HANDLING AND STORAGE

Handling and Storage

Suck back of water into the container must be prevented. Do not allow back feed into the container. Use only properly specified equipment, which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

Cylinders should be stored upright and it is good practice to keep inert, flammables and oxidants apart. All cylinders should be stored with the regulator detached, this provides a very useful safety measure as it prevents accidental high pressure gas discharge. Store either outside or in a well ventilated area, away from ignition sources, ideally in a secure storage area.

High temperatures will cause the gas to expand resulting in a rise in pressure, the upper recommended limit is 45°C or 50°C, however, there is a large safety margin on the burst pressure. Mtech guarantees all mixtures to 0°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection

The gas should not be vented in enclosed areas and inhalation of the gas must be avoided. (See section 11).

9. PHYSICAL AND CHEMICAL PROPERTIES

Relative density, gas	Lighter or similar to air
Solubility mg/l water	Not known, but considered to have low solubility
Appearance/Colour	Colourless gas
Odour	None

10. STABILITY AND REACTIVITY

Stability and reactivity

Stable under normal conditions. Incompatible with acids and strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

General

Ammonia is a respiratory irritant. WEL 25ppm (8hrs TWA), 35ppm (15mins TWA). Also extremely harmful to the eyes.

12. ECOLOGICAL INFORMATION

General

No ecological damage caused by this product.

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13. DISPOSAL INFORMATION

Disposal Used containers are acceptable for disposal in the normal waste stream. A recycle tool is available from Mtech to enable a used non-refillable cylinder to be punctured and safely disposed of.

14. TRANSPORT INFORMATION

Land transport ADR/RID
 Sea transport IMDG
 Air transport ICAO/IATA

UN number: UN3304
 Proper Shipping Name: Compressed gas, Toxic, Corrosive n.o.s. (contains ammonia)
 Class: 2 (ADR) 2.3, 8 (IMDG /IATA)
 ADR classification code: 1TC
 Packing Group: N/A
 Marine Pollutant: N/A

15. REGULATORY INFORMATION

Regulatory Information Following the HSE Approved Supply List (L142) and the UK's CHIP (as currently amended) Regulations -
 Mixtures containing $\geq 5\%$ are Classified as Toxic and corrosive

16. OTHER INFORMATION

For mixtures of 5% ammonia

R23 Toxic by inhalation
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R34 Causes burns

S(1/2) Keep locked up and out of the reach of children
 S9 Keep container in a well-ventilated place
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.
 S36/37/39 Wear suitable protective clothing
 S45 In case of accident or if you feel unwell seek medical advice immediately
 S61 Avoid release to the environment

This SDS has been prepared in accordance with the Chemicals (Hazard Information and Packaging for Supply Regulation (as currently amended). The information is based on the best knowledge of Mtech and its advisors and is given in good faith, but we cannot guarantee its accuracy, reliability or completeness and therefore disclaim any liability for loss or damage arising out of use of this data. Since conditions of use are outside the control of the Company and its advisors we disclaim any liability for loss or damage when the product is used for other purposes than it is intended.