

SAFETY DATA SHEET - CALIBRATION CHECK GAS

PRODUCT: <2000PPM HYDROGEN SULPHIDE / <10% CARBON DIOXIDE / <2.5% METHANE / ≤21% OXYGEN BALANCE NITRIGEN **PAGE:** 1/4

SDS NO: 058C **Version:** 2 **Date:** 29th October 2008

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

SDS NO: 058C

Product Name: Hydrogen Sulphide / Carbon Dioxide / Methane / Oxygen Balance Nitrogen (≥ 17 litres)

Company Identification: See heading and/or footer

2. HAZARDS IDENTIFICATION

Hazards identification: Hydrogen Sulphide is toxic by inhalation

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: In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim is not aware of asphyxiation. Remove victim to uncontaminated area wearing a self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

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	<p>Ensure equipment is adequately earthed. 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.</p> <p>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.</p> <p>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.</p>
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection	<p>Ensure adequate ventilation. Carbon Dioxide WEL = 5000ppm (8hr TWA) 15000ppm (15 min TWA) Hydrogen Sulphide WEL = 5ppm (8hr TWA) 10ppm (15min TWA) No WEL data available for Methane or Oxygen</p>
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9. PHYSICAL AND CHEMICAL PROPERTIES

Relative density, gas	Heavier than air
Solubility mg/l water	Not known
Appearance/Colour	Colourless gas
Odour	Rotten eggs

10. STABILITY AND REACTIVITY

Stability and reactivity	Stable under normal conditions
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11. TOXICOLOGICAL INFORMATION

General	Harmful by inhalation
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Molenstraat 84
B-2640 Mortsel
M +32 (0)474 67 18 82
F +32 (0)3 457 77 17
info@mtechgas.be
www.mtechgas.be

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12. ECOLOGICAL INFORMATION

General No ecological damage caused by this product.

13. DISPOSAL INFORMATION

Disposal Do not discharge into any place where its accumulation could be dangerous. 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: UN1956
Proper Shipping Name: Compressed gas n.o.s. (contains hydrogen sulphide, carbon dioxide, methane, oxygen, nitrogen)
Class: 2 (ADR/IMDG) 2.2 (IATA)
ADR classification code: 1A
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 of <200ppm Hydrogen Sulphide are classified as non-toxic / non-flammable. Mixtures <2000ppm but >200ppm are classified as harmful.

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16. OTHER INFORMATION

Mixtures containing ≥ 200 ppm but <200ppm Hydrogen Sulphide

R20	Harmful by inhalation
R50	Very toxic to aquatic organisms
S1/2	Keep locked up / out of reach of children
S9	Keep container in a well ventilated place
S36	Wear suitable protective clothing
S38	In case of insufficient ventilation, wear suitable respiratory equipment
S45	In case of accident or if you feel unwell seek medical advice immediately
S53	Avoid exposure – obtain special instructions before use
S60	This material and its container must be disposed of as hazardous waste
S61	Avoid release to the environment. Refer to special instructions / safety data sheets

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.
