
1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Material name : Detectagas®
Product code : DG1

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

Product use : For testing Carbon Monoxide detecting Fire Alarms

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Gas Safe Europe Ltd
E35 Ashmount Enterprise Park
Aber Road
Flint
Flintshire
United Kingdom
CH6 5YL
Tel. : + 44 (0) 0845 8734760
Email : info@gassafeurope.com

1.4 Emergency tel. no. : + 44 (0) 0845 8734760 (Office hours) , + 44 (0) 07912503202 (Out of Office hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

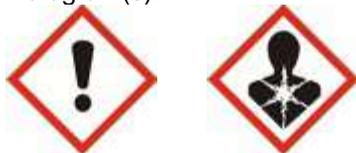
According to 1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation:

Ac. Tox.4; H332
Repr.1A; H360D

2.2 Label elements

Labelling according to EC Directives: 1272/2008/EC:

Signal word: Danger
Contains: Carbon Monoxide
Pictogram(s):



H-Statements:	H332 Harmful if inhaled.
H360D	May damage fertility or the unborn child
H229	Pressurised container: May burst if heated.
P-Statements:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C.
P201	Obtain special instructions before use.
P261	Avoid breathing vapours/spray.

P-Statements (continued):

P308+313 If exposed: Call a POISON CENTER or doctor/physician.
 P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P501 Dispose of in accordance with local/national regulations.

2.3 Other hazards: Asphyxiant in high concentrations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures:

Hazardous components

Chemical Name	CAS No./ EC No./ Reg. No	Classification (1272/2008/EC)	Content
NITROGEN	7727-37-9	Press.Gas Compr.Gas; H280	>90%
CARBON MONOXIDE	231-783-9 630-08-0 211-128-3 01-2119480165-39	Flam.Gas 1; H220 Press.Gas Compr.Gas; H280 Repr.1A; H360D Ac.Tox.3; H331 STOT RE1; H372	0-2%

(1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation).
 See Section 16 for the full text of the H-statements noted above.

4. FIRST AID MEASURES

4.1 Description of first aid measures

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

Skin contact: No undue effects in normal circumstances.

Eye contact: No undue effects in normal circumstances

Ingestion: Not considered a potential route of exposure.

Inhalation: See General advice (above).

4.2 Most important symptoms and effects, both acute and delayed

Respiratory arrest.

4.3 Indication of any immediate medical attention and special treatment needed

See inhalation information above.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Product is non-flammable; use appropriate extinguishing agents for surrounding areas.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting: Irritating/toxic fumes may be released at elevated temperatures.

5.3 Advice for fire-fighters:

Special protective equipment: Wear self-contained breathing apparatus. Use personal protective equipment.
Further information: Standard procedure for chemical fires. Use water spray to cool containers.
Do not allow fire run-off to enter drains.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Use personal protective equipment including self-contained breathing apparatus to deal with spillage/leak if necessary.

6.2 Environmental precautions

Ensure good ventilation and allow product to evaporate to the atmosphere.

6.3 Methods and materials for containment and cleaning up

Remove leaking cans to outdoors and allow to evaporate. Avoid breathing vapours.

6.4 References to other sections

See sections 8 and 13 for personal protection and disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid breathing product vapours. Handle with care.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well ventilated area. Protect from frost, heat and sunlight. Incompatible with oxidising agents. Keep away from food, drink and animal feed.

7.3 Specific end use(s)

No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Chemical name	8hr TWA	15min STEL	Reference
Carbon Monoxide	30 ppm/35 mg/m ₃	200 ppm/232 mg/m ₃	EH40/2005

Biological Limit Values

Chemical name	Exposure Limit Values	Source
Carbon Monoxide	30 ppm (end-tidal breath)	EH40/2005 BMGV

DNEL Values

Critical component	Type	Value
Carbon Monoxide	Worker – inhalative, long-term-systemic	23 mg/m ₃
	Worker – inhalative, short-term-systemic	117 mg/m ₃
	Worker – inhalative, long-term-local	23 mg/m ₃
	Worker – inhalative, short-term-local	117 mg/m ₃

No PNEC Values have been established.

8.2 Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Observe Workplace Exposure Limits.

Personal protective equipment

Respiratory protection: Unlikely to be necessary in normal circumstances.

Hand protection: Wear chemically resistant gloves such as butyl rubber approved to standard EN 374.

Eye protection: Chemical splash goggles to standard EN166.

Skin and body protection: General workwear. Remove and replace contaminated clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices. Do not eat or drink whilst using the product. Wash hands before breaks and at the end of the work day. Wash contaminated clothing before re-use.

Environmental exposure controls: Do not discharge into drains or rivers.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State and colour	Aerosol emitting colourless gas
Odour	Odourless
Odour Threshold	Odour threshold is subjective and inadequate to warn of over-exposure.
Flammability	Not flammable
Flash point	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosive properties	Not explosive
Thermal decomposition	No data available

Auto-ignition temperature Not applicable
Oxidising properties Non-oxidising

9.1 Information on basic physical and chemical properties (continued)

Solubility in water No data available
Solubility in other solvents Not determined
pH Not applicable
Melting point/range No data available
Boiling point/range No data available
Relative density No data available
Vapour pressure No data available
Vapour density 0.99 (air = 1)
Partition coefficient: n-octanol/water No data available
Viscosity (kinematic) Not applicable
Evaporation rate Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity Generally non-reactive.
10.2 Chemical stability Stable under normal conditions.
10.3 Possibility of hazardous reactions None.
10.4 Conditions to avoid None.
10.5 Incompatible materials None known.
10.6 Hazardous decomposition products None produced in normal circumstances.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Chemical name	Oral (LD50)	Inhalation (LC50)	Dermal (LD50)
Carbon Monoxide	No data available	1300 ppm (Rat) 4h 3760 ppm (Rat) 1h	No data available

Skin corrosion/irritation: Not classed as a skin irritant.
Serious eye damage/eye irritation: Not classed as irritating to eyes.
Respiratory or skin sensitisation: Not classed as a respiratory or skin sensitizer.
Repeated dose toxicity: No data available.
Carcinogenicity: Not carcinogenic.
Mutagenicity: Not mutagenic.
Toxicity for reproduction: Carbon Monoxide: May damage fertility or the unborn child.
Specific target organ toxicity (STOT) Single exposure: Carbon Monoxide: Route of exposure: Inhalation – Target organ(s): Blood – Causes damage to red blood cells (haemolytic poison). Carbon Monoxide binds reversibly to haemoglobin (Hb) to form carboxyhaemoglobin (CoHb), reducing the capacity of the blood to transport oxygen.

Specific target organ toxicity

(STOT) Repeated exposure: Carbon Monoxide: Route of exposure: Inhalation – Target organ(s): Heart – Risk of serious health injuries in case of long term exposure.

Further information No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity No acute ecological damage caused by this product.

12.2 Persistence and degradability Carbon monoxide is an inorganic compound and as such is not Readily biodegradable.

12.3 Bioaccumulative potential Not expected to be bioaccumulative.

12.4 Mobility in soil Not applicable due to high volatility.

12.5 Results of PBT and vPvB assessment Contains no PBT or vPvB substances.

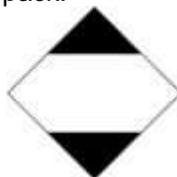
12.6 Other adverse effects Product Global Warming Potential: 0.
Carbon Monoxide Global Warming Potential: 1.9.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Disposal operations: Dispose of in accordance with local and national regulations. Do not dispose of waste into sewer.
Do not dispose of together with household waste. Contact licensed waste disposal company.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn or use a cutting torch on the empty container.

14. TRANSPORT INFORMATION

General Information: The UN number for all aerosols is 1950. Aerosols packed in fibreboard cartons up to 30 kg gross weight, or shrink/stretch wrapped onto trays up to 20 kg gross weight may be transported as Limited Quantities, and should display the following symbol on the pack:



The following information relates to all other aerosols not transported as Limited Quantities:

14.1 UN number ADR/RID/ADN; IMDG; ICAO 1950

14.2 UN proper shipping name AEROSOLS

14.3 Transport hazard class(es) ADR/RID/ADN Class 2, 5A
ADR/RID/ADN Class Class 2, Gases
ADR Label No. 2.2
IMDG Class 2
ICAO Class/Division 2
ICAO Subsidiary risk 2.2



Transport labels

14.4 Packing Group

ADR/RID/ADN; IMDG; ICAO Not applicable for aerosols

14.5 Environment hazards

Marine Pollutant Not applicable for aerosols.

14.6 Special precautions for user

EMS F-D, S-U

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

Not applicable for aerosols.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK Regulatory References**

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives

Regulations (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendment 2015/830.

Statutory Instruments

The Chemicals (Hazard information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Health and Safety Executive Workplace Exposure Limits EH40.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been performed on this product.

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Commission Regulation (EU) No.453/2010.

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

H220	Extremely flammable gas
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated
H331	Toxic if inhaled
H332	Harmful if inhaled
H360D	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms

CAS:	Chemical Abstract Service (division of the American Chemical Society). {Section 3}.
STOT:	Single Target Organ Toxicity (Section 11).
TWA:	Time-weighted average. (Section 8).
STEL:	Short-term exposure limit. (Section 8).
EC50:	Effective Concentration, 50 percent. (Section 12).
LC50:	Lethal Concentration, 50 percent. (Section 11/12).
LD50:	Lethal Dose, 50 percent. (Section 11).

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.