

Detector Tube Types CO2 - xxx

D050017101

Revision no.: 4,00

Revision date: 17.08.2011

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0. General notes

These products are articles according to article 3.3 of regulation (EC) no. 1907/2006 (REACH). It is not necessary to supply a Safety Data Sheet for these products. Safety Data Sheets stipulate according to Article 31 for hazardous substances and preparations, but not for articles. MSA is obliged to supply its customers with appropriate information to ensure safe handling. A special format is not required for this information.

1. Identification of the substance/mixture and of the company/undertaking

Product identifier: Detector Tube Types CO2 - xxx
Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Detector tube
Uses advised against: The product is to be used exclusively for the applications named in the directions for use.

Details of the supplier of the safety data sheet

Company name: MSA AUER GmbH
Street: Thiemannstrasse 1
Place: D-12059 Berlin
Telephone: ++49-30-6886-0
Telefax: ++49-30-6886-1558
Emergency telephone: 1-800-255-3924 USA/CDN
++1-813-248-0585 internat.

Further Information: Apply Safety data sheet to the following products:
Part-No. Product name
D5086844 CO2-0,5%
10016607 CO2-0,5% Heraeus

2. Hazards identification

Classification of the substance or mixture: This mixture is not classified as dangerous according to Directive 1999/45/EC.
As an article the product does not need to be labelled in accordance with EC-directives or respective national laws.

Label elements

S phrases:

02	Keep out of the reach of children.
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
46	If swallowed, seek medical advice immediately and show this container or label.
24	Avoid contact with skin.

Additional advice on labelling: As an article the product does not need to be labelled in accordance with EC-directives or respective national laws.

Other hazards: Detector tube: No hazards deemed to be of major importance.
Content: No hazards deemed to be of major importance.

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3. Composition/information on ingredients**Mixtures****Chemical characterization:**

Sealed glass tube, filled with inert granules, treated with 2-aminoethanol, isopropanol and further chemicals, which are not dangerous in their concentration

Hazardous components

EC No.	Chemical name	Quantity
CAS No.	Classification	
Index No.	GHS classification	
REACH No.		
200-661-7	Propan-2-ol; isopropyl alcohol; isopropanol	2 - 3 %
67-63-0	F, Xi R11-36-67	
603-117-00-0	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
205-483-3	2-Aminoethanol, ethanolamine	< 1 %
141-43-5	Xn, C R20/21/22-34	
603-030-00-8	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B; H332 H312 H302 H314	

Full text of R- and H-phrases: see section 16.

4. First aid measures**Description of first aid measures****After inhalation:**

Not applicable for intact detector tubes.
 When indicator material is spilled: Inhalation of vapours: Move to fresh air. Call a physician immediately.

After contact with skin:

Not applicable for intact detector tubes.
 When indicator material is spilled: Wash off immediately with plenty of water. Consult a physician. Cut be handled through a doctor.

After contact with eyes:

Not applicable for intact detector tubes.
 When indicator material is spilled: Rinse immediately with plenty of water, also under the eyelids. Consult an ophthalmologist immediately.

After ingestion:

Not applicable for intact detector tubes.
 When indicator material is spilled: Call a physician immediately.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media:**

The product itself does not burn. Use extinguishing measures that are appropriate to the environment.

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Extinguishing media which must not be used for safety reasons: None.

Special hazards arising from the substance or mixture: None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Release not possible if used properly.

Methods and material for containment and cleaning up: When indicator material is spilled: Mop up whilst dry. Avoid dust formation. Avoid contact of breakage of glass and indicator material. Dispose of as described in section 13.

7. Handling and storage

Precautions for safe handling

Advice on safe handling: See the specific Instruction for use.

Advice on protection against fire and explosion: No special precautions required.

Conditions for safe storage, including any incompatibilities

Advice on storage compatibility: Do not store together with edibles.

Further information on storage conditions: See the specific Instruction for use. Recommended storage temperature: 20°C

8. Exposure controls/personal protection**Control parameters****Exposure limits (EH40)**

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
141-43-5	2-Aminoethanol	1	1.5		TWA (8 h)	WEL
		3	7.6		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

Additional advice on limit values: Release not possible if used properly.

Exposure controls

Protective and hygiene measures: Avoid contact with eyes or skin after breaking of the tub tips. Avoid contact of breakage of glass and indicator material. Do not take up glass breaks and content of the tube with bare hands. Wash hands before breaks and at the end of the workday.

Respiratory protection: Not required.

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Hand protection:	Not required. When indicator material is spilled: Protective gloves made out of: Nitrile rubber
Eye protection:	Not required. When indicator material is spilled: Safety glasses
Skin protection:	Not required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Granules in a glass tube.
Colour:	white
Odour:	almost odorless

pH-Value (at 20 °C):

8

Test method
50 g/l water

Changes in the physical state

Melting point:	n.a.
Boiling point:	n.a.
Flash point:	n.a.
Lower explosion limits:	n.a.
Upper explosion limits:	n.a.
Vapour pressure:	n.a.
Water solubility: (at 20 °C)	low solubility
Viscosity / dynamic:	n.a.

10. Stability and reactivity

Reactivity:	None if handled correctly
Possibility of hazardous reactions:	None if handled correctly
Conditions to avoid:	None if handled correctly
Hazardous decomposition products:	No decomposition if stored and applied as directed.
Further information:	After the opening of the tube: Sensitive to air (discolouration)

11. Toxicological information

Information on toxicological effects

Toxicokinetics, metabolism and distribution:	Not applicable for intact detector tubes. When indicator material is spilled: No data available.
Acute toxicity:	Not applicable for intact detector tubes. When indicator material is spilled: No data available.

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CAS No.	Chemical name				
	Exposure routes	Method	Dose	Species	h
67-63-0	Propan-2-ol; isopropyl alcohol; isopropanol				
	Acute oral toxicity	LD50	5045 mg/kg	rats	
	Acute dermal toxicity	LD50	12800 mg/kg	rabbit	
141-43-5	2-Aminoethanol, ethanolamine				
	Acute oral toxicity	ATE	500 mg/kg		
	Acute dermal toxicity	ATE	1100 mg/kg		

12. Ecological information**Toxicity:**

Not applicable for intact detector tubes.

When indicator material is spilled: No data available.

CAS No.	Chemical name				
	Aquatic toxicity	Method	Dose	Species	h
67-63-0	Propan-2-ol; isopropyl alcohol; isopropanol				
	Acute fish toxicity	LC50	1400 mg/l	Lepomis macrochirus	96
	Acute algae toxicity	ErC50	> 1000 mg/l	Desmodesmus subspicatus	72
	Acute crustacea toxicity	EC50	13299 mg/l	Daphnia Magna	48

Persistence and degradability:

Not applicable for intact detector tubes.

When indicator material is spilled: No data available.

Bioaccumulative potential:

Not applicable for intact detector tubes.

When indicator material is spilled: No data available.

Partition coefficient n-octanol/water

CAS No.	Chemical name	Log Pow
67-63-0	Propan-2-ol; isopropyl alcohol; isopropanol	0,05

Mobility in soil:

Not applicable for intact detector tubes.

When indicator material is spilled: No data available.

Further information:

When indicator material is spilled: Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

13. Disposal considerations**Waste treatment methods**

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Recommendation Waste disposal number of waste from residues/unused products:

150202
WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
Classified as hazardous waste.

Recommendation Waste disposal number of contaminated packaging:

150101
WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); paper and cardboard packaging

14. Transport information

Land transport (ADR/RID)

Other applicable information (land transport):

Not classified as dangerous regarding transport regulations.

Inland waterways transport

Other applicable information (inland waterways transport):

Not classified as dangerous regarding transport regulations.

Marine transport

Other applicable information (marine transport):

Not classified as dangerous regarding transport regulations.

Air transport

Other applicable information (air transport):

Not classified as dangerous regarding transport regulations.

15. Regulatory information

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

National regulatory information

16. Other information

Changes:

Sections which have been changed in comparison to the preceding edition: 1, 2, 3, 10, 11, 12, 14

Abbreviations and acronyms:

n.a. = not applicable
n.d. = not determined

Full text of R-phrases referred to under sections 2 and 3:

11	Highly flammable.
20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
34	Causes burns.
36	Irritating to eyes.

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

67	Vapours may cause drowsiness and dizziness.
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

Further Information:

The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The product is to be used exclusively for the applications named in the technical leaflet or in the processing instructions. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)