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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 SF6-products of decomposition

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. D5085838

2. Hazards identification

Classification of the substance or As an article the product does not need to be labelled in

mixture:

Label elements

S phrases:

Other hazards:

ses: 61

accordance with EC-directives or respective national laws.

Avoid release to the environment. Refer to special instructions / Safety data sheets.

Additional advice on labelling: As an article the product does not need to be labelled in

accordance with EC-directives or respective national laws.

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

Content: Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical characterization: Sealed glass tube, filled with inert granules, treated with

methanol, copper(II)sulfate and further chemicals, which are

not dangerous in their concentration



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Hazardous components

Chemical name	Quantity
Classification	
GHS classification	
Copper sulphate	< 1 %
Xn, Xi, N R22-36/38-50-53	
Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H319 H315 H400 H410	
Methanol	< 0,1 %
F, T R11-23/24/25-39/23/24/25	
Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370	
	Classification GHS classification Copper sulphate Xn, Xi, N R22-36/38-50-53 Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H319 H315 H400 H410 Methanol F, T R11-23/24/25-39/23/24/25 Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, STOT SE 1;

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: If you feel unwell, seek

medical advice (show the label where possible).

After contact with skin: Not applicable for intact detector tubes.

When indicator material is spilled: Wash off immediately with

plenty of water.

After contact with eyes: Not applicable for intact detector tubes.

When indicator material is spilled: In the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice (10 min).

After ingestion: Not applicable for intact detector tubes.

When indicator material is spilled: If you feel unwell, seek

medical advice (show the label where possible).

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: The product itself does not burn. Use extinguishing measures

that are appropriate to the environment.

Extinguishing media which must not be

used for safety reasons:

Special hazards arising from the

substance or mixture:

None.

None.

6. Accidental release measures



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Personal precautions, protective

Release not possible if used properly.

equipment and emergency procedures: 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: Advice on protection against fire and

explosion:

See the specific Instruction for use. No special precautions required.

Conditions for safe storage, including any incompatibilities

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

See the specific Instruction for use. Store in cool place (< 20° Further information on storage

conditions: C)

8. Exposure controls/personal protection

Control parameters

Exposure limits (EH40)

ml/m³	mg/m³	F/ml	Category	Origin
200	266		TWA (8 h)	WEL
250	333		STEL (15	WEL
	200	200 266	200 266	200 266 TWA (8 h)

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 breads and content of the tube with bare hands. Wash hands before breaks and at the end of the

workday.

Respiratory protection: Not required. Hand protection: Not required.

When indicator material is spilled: Protective gloves made out

of: nitrile rubber, butyl rubber

Not required. Eye protection: Skin protection: Not required.

9. Physical and chemical properties



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Information on basic physical and chemical properties

Physical state: Granules in a glass tube. Colour: violet and light blue Odour:

irritating (of vinegar)

Test method pH-Value (at 20 °C): 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: Water solubility: low solubility

(at 20 °C)

Viscosity / dynamic: n.a.

10. Stability and reactivity

None if handled correctly Reactivity: None if handled correctly Possibility of hazardous reactions: 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

Toxicocinetics, metabolism and Not applicable for intact detector tubes.

When indicator material is spilled: No data available. distribution:

Not applicable for intact detector tubes. Acute toxicity:

When indicator material is spilled: No data available.

CAS No.	Chemical name				
	Exposure routes	Method	Dose	Species	h
7758-98-7	Copper sulphate				
	Acute oral toxicity	LD50	300 mg/kg	rats	
67-56-1	Methanol				
	Acute oral toxicity	LD50	5628 mg/kg	rats	
	Acute dermal toxicity	LD50	15800 mg/kg	rabbit	

12. Ecological information



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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
7758-98-7	Copper sulphate					
	Acute fish toxicity	LC50	0,11 mg/l		Rainbow trout (Oncorhynchus mykiss)	96
67-56-1	Methanol					
	Acute fish toxicity	LC50	15400 mg/l		Lepomis macrochirus	96
	Acute crustacea toxicity	EC50	> 10000 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
67-56-1	Methanol	-0,77

Mobility in soil: Not applicable for intact detector tubes.

When indicator material is spilled: No data available. When indicator material is spilled: Harmful to aquatic

organisms, may cause long-term adverse effects in the

aquatic environment.

Further information: When indicator material is spilled: Should not be released into

the environment.

13. Disposal considerations

Other adverse effects:

Waste treatment methods

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



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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, 8, 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. 22 Harmful if swallowed.

23/24/25 Toxic by inhalation, in contact with skin and if

swallowed.

Irritating to eyes and skin. 36/38

39/23/24/25 Toxic: danger of very serious irreversible effects

through inhalation, in contact with skin and if

swallowed.

50 Very toxic to aquatic organisms.

53 May cause long-term adverse effects in the

aquatic environment.

Full text of H-Statements referred to H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed. under sections 2 and 3:

H302 Harmful if swallowed. Toxic in contact with skin. H311 H315 Causes skin irritation. H319

Causes serious eye irritation.

H331 Toxic if inhaled.

H370 Causes damage to organs.



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H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects. 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.)