

## Smoke cartridges

D050015201

Revision No: 3,00

Revision date: 05.10.2011

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

**Product identifier:** Smoke cartridges  
**Relevant identified uses of the substance or mixture and uses advised against**

#### 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.  
D6009000

### 2. Hazards identification

**Classification of the substance or mixture:** Indications of danger: Corrosive  
R-phrases: Causes severe burns.

#### Label elements

**Danger symbols:**



C - Corrosive

C - Corrosive

**Hazardous components which must be listed on the label:**

Sulfic acid fumic

**R phrases:**

35 Causes severe burns.

**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.

28 After contact with skin, wash immediately with plenty of water.

46 If swallowed, seek medical advice immediately and show this container or label.

### 3. Composition/information on ingredients

#### Mixtures

**Chemical characterization:** Sealed glass tube, filled with inert granules, treated with sulfuric acid fumic

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### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
-	Sulfic acid fuming	35 %
8014-95-7	C R14-35-37	
	Skin Corr. 1; H335 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. Wash off immediately with plenty of water. Consult a physician.

#### After contact with eyes:

Not applicable for intact detector tubes.  
When indicator material is spilled: Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Consult an ophthalmologist immediately.

#### After ingestion:

Not applicable for intact detector tubes.  
When indicator material is spilled: Call a physician immediately. If conscious, drink plenty of water.

## 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:

None.

#### Special hazards arising from the substance or mixture:

None.

#### Advice for firefighters:

None.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Release not possible if used properly.

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### Methods and material for containment and cleaning up:

When indicator material is spilled: Dilute with water. Soak up the product with absorbent, non-flammable material. Avoid contact of breakage of glass and indicator material. Dispose of as described in chapter 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. Store in cool place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure limits (EH40)

CAS No	Chemical name	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	1		TWA (8 h)	EU
		-	-		STEL (15 min)	EU

#### 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

#### Eye protection:

Not required.

When indicator material is spilled: Safety glasses

#### 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:** red  
**Odour:** pungent

pH-Value (at 20 °C):

1

#### 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  
**Chemical stability:** Stable under proper storage and handling.  
**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 water

## 11. Toxicological information

### Information on toxicological effects

**Toxicocinetics, metabolism and distribution:** No data available.

### Irritation and corrosivity:

Inhalation of mist can lead to lung damage.  
The product causes burns of eyes, skin and mucous membranes. Risk of serious damage to eyes. Possible risk of irreversible effects.  
Effects of skin contact may include burn, itching.  
Ingestion causes burns of the upper digestive and respiratory tracts. Danger of perforation !

## 12. Ecological information

**Toxicity:** No data available.

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<b>Persistence and degradability:</b>	No data available.
<b>Bioaccumulative potential:</b>	No data available.
<b>Mobility in soil:</b>	No data available.
<b>Results of PBT and vPvB assessment:</b>	The product does not contain any substance which meets the PBT criteria (persistent/bio-accumulative/toxic) or the vPvB criteria (very persistent/very bio-accumulative).
<b>Other adverse effects:</b>	No data available.
<b>Further information:</b>	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

**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)

<b>UN number:</b>	UN3260
<b>UN proper shipping name:</b>	Corrosive acidic inorganic liquid substance n.o.s. (sulphuric acid fuming)
<b>Transport hazard class(es):</b>	8
<b>Packing group:</b>	II
<b>Hazard label:</b>	8



<b>Classification code:</b>	C2
<b>Limited quantity:</b>	1 kg
<b>Transport category:</b>	2
<b>Hazard No:</b>	80
<b>Tunnel restriction code:</b>	E

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### Inland waterways transport

**UN number:** UN3260  
**UN proper shipping name:** Corrosive acidic inorganic liquid substance n.o.s. (sulfic acid fuming)  
**Transport hazard class(es):** 8  
**Packing group:** II  
**Hazard label:** 8



**Classification code:** C2  
**Limited quantity:** 1 kg  
**Other applicable information (inland waterways transport):** Not classified as dangerous regarding transport regulations.

### Marine transport

**UN number:** UN3260  
**UN proper shipping name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Transport hazard class(es):** 8  
**Packing group:** II  
**Hazard label:** 8



**Limited quantity:** 1 kg  
**EmS:** F-A, S-B

### Air transport

**UN/ID number:** UN3260  
**UN proper shipping name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Transport hazard class(es):** 8  
**Packing group:** II  
**Hazard label:** 8



**Limited quantity Passenger:** 5 kg  
**IATA-packing instructions - Passenger:** 859  
**IATA-max. quantity - Passenger:** 15 kg  
**IATA-packing instructions - Cargo:** 863  
**IATA-max. quantity - Cargo:** 50 kg  
**Other applicable information (air transport):** Excepted Quantity: E2  
Passenger-LQ: Y844

## 15. Regulatory information

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

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### National regulatory information

## 16. Other information

### Changes:

Sections which have been changed in comparison to the preceding edition: 1, 2, 3, 10, 11, 12, 15

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

14 Reacts violently with water.

35 Causes severe burns.

37 Irritating to respiratory system.

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

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

### 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.

n.a. = not applicable

n.d. = not determined

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