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 Ethyl acetate - 200

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.
10024253

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.
28 After contact with skin, wash immediately with plenty of water.
46 If swallowed, seek medical advice immediately and show this container or label.
24/25 Avoid contact with skin and eyes.

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: Causes severe burns.
3. Composition/information on ingredients

Mixtures
Chemical characterization: Sealed glass tube, filled with inert granules, treated with sulphuric acid, chromium trioxide and further chemicals, which are not dangerous in their concentration

Hazardous components

<table>
<thead>
<tr>
<th>EC No.</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>231-639-5</td>
<td>Sulphuric acid</td>
<td>&lt; 10 %</td>
</tr>
<tr>
<td>7664-93-9</td>
<td>Chromium trioxide</td>
<td>&lt;0.1 %</td>
</tr>
<tr>
<td>016-020-00-8</td>
<td>Skin Corr. 1A; H314</td>
<td></td>
</tr>
<tr>
<td>215-607-8</td>
<td>Chromium trioxide</td>
<td>&lt;0.1 %</td>
</tr>
</tbody>
</table>

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. If symptoms persist, call a physician.

After contact with skin: Not applicable for intact detector tubes. When indicator material is spilled: Wash off immediately with plenty of water. If symptoms persist, call a physician.

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. If conscious, drink plenty of water.

5. Fire-fighting measures

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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Methods and material for containment and cleaning up:

Release not possible if used properly.

When indicator material is spilled: Dilute with water. Soak up the product with absorbent, non-flammable material (acid binding agent). 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)

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Chemical name</th>
<th>ml/m³</th>
<th>mg/m³</th>
<th>F/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Chromium (VI) compounds (as Cr)</td>
<td></td>
<td>0.05</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>7664-93-9</td>
<td>Sulphuric acid (mist)</td>
<td></td>
<td>1</td>
<td></td>
<td>TWA (8 h)</td>
<td>EU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td>-</td>
<td>STEL (15 min)</td>
<td>EU</td>
</tr>
</tbody>
</table>

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Granules in a glass tube.
Colour: yellow
Odour: pungent

pH-Value (at 20 °C): 1

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: low solubility
(at 20 °C)
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
Toxicocinetics, metabolism and distribution: Not applicable for intact detector tubes.
Acute toxicity: Not applicable for intact detector tubes.
## Detector Tube Ethyl acetate - 200

**CAS No.** | **Chemical name**  
---|---
1333-82-0 | Chromium trioxide

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50</td>
<td>50 mg/kg</td>
<td>rats</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50</td>
<td>55 mg/kg</td>
<td>rats</td>
</tr>
</tbody>
</table>

### Irritation and corrosivity:
In the formation of vapours: Inhalation of mist can lead to lung damage. Vapours may be irritating to eyes, nose, throat, and lungs. May cause skin irritation. Ingestion causes burns of the upper digestive and respiratory tracts.

### Sensitizing effects:
Not applicable for intact detector tubes.
Chromium trioxide: May cause sensitization by inhalation and skin contact.

### Carcinogenic/mutagenic/toxic effects for reproduction:
Not applicable for intact detector tubes.

### 12. Ecological information

#### Toxicity:
Not applicable for intact detector tubes.
When indicator material is spilled: No data available.

| CAS No. | Chemical name  
---|---
1333-82-0 | Chromium trioxide

<table>
<thead>
<tr>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>0.162 mg/l</td>
</tr>
</tbody>
</table>

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.

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
Safety information for products

Detector Tube Ethyl acetate - 200

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.

Air transport
UN proper shipping name:
Not classified as dangerous regarding transport regulations.
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:
09 Explosive when mixed with combustible material.
24/25 Toxic in contact with skin and if swallowed.
26 Very toxic by inhalation.
35 Causes severe burns.
42/43 May cause sensitization by inhalation and skin contact.
45 May cause cancer.
46 May cause heritable genetic damage.
Detector Tube Ethyl acetate - 200

Description: Toxic: danger of serious damage to health by prolonged exposure through inhalation.

50 Very toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

62 Possible risk of impaired fertility.

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

H271 May cause fire or explosion; strong oxidiser.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H340 May cause genetic defects.

H345 May cause cancer.

H361f Suspected of damaging fertility.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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.)