SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: AP-A, AP-D SUSPENSION
Cat. No. 40700042, 40700043, 40700044, 40700045, 40700046, 40700034, 40700035, 40700036

Container size: 500 ml

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

Application: Cutting and lubricating agent for grinding and polishing of materialographic specimens.

Details of the supplier of the safety data sheet

Supplier: Struers ApS
Pederstrupvej 84
DK-2750 Ballerup
Tel:+45 44 600 800

Responsible for material safety data sheet authoring: Responsible for material safety data sheet authoring: DHI
Any questions to the contents of this material safety data sheet should be sent to: struers@struers.dk

Emergency telephone number

Emergency telephone: National Capital Poison Center: 1-800-222-1222 (*)
Infotrac:
1-800-535-5053
Struers US:
1-440-871-0071
SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Skin Sensitizer Category 1

Label elements

Warning

Contains: A mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

H317 May cause an allergic skin reaction.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective clothing, gloves, eye and face protection.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with local regulations.

NFPA Rating: Health:2 Fire:0 Reactivity:0 Other:-

Other hazards

PBT/vPvB: Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: Aluminium oxide and Water.

OSHA 2012:

<table>
<thead>
<tr>
<th>%</th>
<th>CAS-No.</th>
<th>EC No.</th>
<th>REACH Reg. No.</th>
<th>Chemical name</th>
<th>Hazard classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-30</td>
<td>1344-28-1</td>
<td>418-390-1</td>
<td>-</td>
<td>Aluminium oxide</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>0,0015 - &lt; 0,06</td>
<td>55965-84-9</td>
<td>-</td>
<td>A mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td></td>
<td>Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 Skin Corr. 1B;H314 Skin Sens. 1;H317 Aquatic Acute 1;H400 Aquatic Chronic 1;H410</td>
<td></td>
</tr>
</tbody>
</table>

References: The full text for all hazard statements is displayed in section 16.
SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation: In case of inhalation of spray mist: Move person into fresh air and keep at rest.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Not known.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: No specific precautions.

Special hazards arising from the substance or mixture

Specific hazards: No specific precautions.

Advice for firefighters

Protective equipment for firefighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin and eyes.

Environmental precautions

Environmental precautions: Avoid discharge into water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Dam and absorb spillage with sand, sawdust or other absorbent.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.
SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid contact with skin and eyes. Observe good chemical hygiene practices. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

Technical measures: Work practice should minimize contact.

Technical precautions: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in tightly closed original container. Store at room temperature.

Specific end use(s)

Specific use(s): Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>As:</th>
<th>Exposure limits</th>
<th>Type</th>
<th>Notes</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>Glycerin, mist, respirable fraction</td>
<td>-</td>
<td>5 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>OSHA</td>
</tr>
<tr>
<td>56-81-5</td>
<td>Glycerin, mist, total dust</td>
<td>-</td>
<td>15 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>OSHA</td>
</tr>
<tr>
<td>1344-28-1</td>
<td>α-Alumina, respirable fraction</td>
<td>-</td>
<td>5 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>OSHA</td>
</tr>
<tr>
<td>1344-28-1</td>
<td>α-Alumina, total dust</td>
<td>-</td>
<td>15 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>OSHA</td>
</tr>
</tbody>
</table>

Exposure controls

Engineering measures: Local exhaust is recommended. Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation.

Personal protection: Personal protection equipment should be chosen according to the ANSI standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation use suitable respirator. It is recommended to use respiratory equipment with combination filter, type A2/P3.

Hand protection: Wear protective gloves. Neoprene gloves are recommended. Suitable gloves can be recommended by the glove supplier.

Eye protection: Risk of splashes: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of splashes.

Hygiene measures: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Environmental Exposure Controls: Not available.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Suspension.
Color: White.
Odor: Odorless.
pH: Not available.
Boiling point: 100°C
Flash point: Not available.
Explosion limits: Not available.
Relative density: 1,20
Solubility: Miscible with water.

Other information

Other data: Volatile Organic Compound (VOC): 0 g/l

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None known.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None known.

Conditions to avoid

Conditions/materials to avoid: Direct sunlight.

Incompatible materials

Incompatible materials: None specific.

Hazardous decomposition products

Hazardous decomposition products: None in particular.
SECTIONS 11: TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

- **Acute Toxicity (Oral):** Based on available data, the classification criteria are not met.
- **Acute Toxicity (Dermal):** Based on available data, the classification criteria are not met.
- **Acute Toxicity (Inhalation):** Based on available data, the classification criteria are not met.
- **Skin Corrosion/Irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization:** May cause an allergic skin reaction.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive Toxicity:** Based on available data, the classification criteria are not met.
- **STOT - Single exposure:** Based on available data, the classification criteria are not met.
- **STOT - Repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

Inhalation: Not relevant at normal room temperatures. When heated, irritating vapors may be formed. Spray mist may irritate the respiratory system.

Skin contact: Prolonged contact may cause redness and irritation.

Eye contact: Splashes may irritate.

Ingestion: May irritate.

**Specific effects:**

- **Carcinogenicity:**
  - National Toxicology Program (NTP): No.
  - I.A.R.C. Monographs: No.
  - OSHA: No.

SECTIONS 12: ECOLOGICAL INFORMATION

**Toxicity**

Ecotoxicity: The product is not expected to be hazardous to the environment.

**Persistence and degradability**

Degradability: The degradability of the product has not been stated.

Bioaccumulative potential:

Bioaccumulative potential: No data available on bioaccumulation.

**Mobility in soil**

Mobility: No data available.

**Results of PBT and vPvB assessment**

PBT/vPvB: Not relevant.

**Other adverse effects**

Other adverse effects: None known.
SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues: Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

EWC-code: 16 05 06

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT).

UN number

UN-No: -

UN proper shipping name

Proper Shipping Name: -

Transport hazard class(es)

Class: -

Packing group

PG: -

Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

Special precautions for user

Special precautions: None known.

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

Transport in bulk: Not relevant.
SECTION 15: REGULATORY INFORMATION

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

Special provisions: As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

TSCA: Listed.

National regulation: Europe/USA:
This Material Safety Data Sheet has been prepared according to the EU-regulation. The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments. NIOSH Pocket Guide to Chemical Hazards.
SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements:
1. The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Additional information: Classification according to HCS 2012:
Calculation method.

Wording of H-statements:
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.
H331 Toxic if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.