SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

METALSTAR Eco 10 0006 Silver

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
   Trade name : METALSTAR Eco 10 0006 Silver
   Material number : 053446RC0

1.2 Relevant identified uses of the substance or mixture and uses advised against
   This information is not available.

1.3 Details of the supplier of the safety data sheet
   Company : ECKART GmbH
   Guentersthal 4
   91235 Hartenstein
   Telephone : +499152770
   Telefax : +499152777008
   E-mail address of person responsible for the SDS : msds.eckart@altana.com

1.4 Emergency telephone number
   GBK Gefahrgut Büro GmbH, Ingelheim, Germany:
   From outside US: (001) 352-323-3500
   (First call in English, response in your language is possible)
   US & Canada (toll free) : 1-800-5355-053

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification (REGULATION (EC) No 1272/2008)
   Not a dangerous substance according to GHS.
   Classification (67/548/EEC, 1999/45/EC)
   Not a hazardous substance or mixture.

2.2 Label elements
   Labelling (REGULATION (EC) No 1272/2008)
   Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).
2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>231-072-3</td>
<td>01-2119529243-45</td>
<td>F; R11</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move the victim to fresh air.
Do not leave the victim unattended.

No hazards which require special first aid measures.

If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water.

In case of eye contact : Remove contact lenses.
If eye irritation persists, consult a specialist.
Immediately flush eye(s) with plenty of water.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.
4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Dry sand

Special powder against metal fire

Unsuitable extinguishing media: ABC powder

Carbon dioxide (CO2)

Water

Foam

5.2 Special hazards arising from the substance or mixture

This information is not available.

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Evacuate personnel to safe areas.

6.2 Environmental precautions

This information is not available.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Use mechanical handling equipment.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Wipe up with absorbent material (e.g. cloth, fleece).

Do not flush with water.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Hygiene measures: General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Electrical installations / working materials must comply with the technological safety standards. Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen). Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

Further information on storage conditions: Protect from humidity and water.

Advice on common storage: Do not store near acids. Do not store together with oxidizing and self-igniting products. Keep away from oxidizing agents and strongly acid or alkaline materials. Never allow product to get in contact with water during storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Other data: No decomposition if stored and applied as directed.

7.3 Specific end use(s)
This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis (Version Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>NGV (Total)</td>
<td>5 mg/m3</td>
<td>SE AFS (2011-12-16)</td>
</tr>
</tbody>
</table>
Further information

Inhalable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.3 and having sampling characteristics as specified in paragraph 5.1. Respirable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.11 and having sampling characteristics as specified in paragraph 5.3. Total dust refers to all the particles (aerosols) trapped in a filter in the sampling apparatus described in Methods, Sampling of total dust and respirable dust, method nr 1010, published by the National Board of Occupational Safety and Health, now Work Environment Authority. The filter diameter shall normally be 37 mm but can also be 25 mm. Despite its name, not the total amount of airborne particles is measured by this method.

<table>
<thead>
<tr>
<th>aluminium powder (stabilised)</th>
<th>7429-90-5</th>
<th>NGV (Respirable)</th>
<th>2 mg/m³</th>
<th>SE AFS (2011-12-16)</th>
</tr>
</thead>
</table>

Further information

Inhalable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.3 and having sampling characteristics as specified in paragraph 5.1. Respirable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.11 and having sampling characteristics as specified in paragraph 5.3. Total dust refers to all the particles (aerosols) trapped in a filter in the sampling apparatus described in Methods, Sampling of total dust and respirable dust, method nr 1010, published by the National Board of Occupational Safety and Health, now Work Environment Authority. The filter diameter shall normally be 37 mm but can also be 25 mm. Despite its name, not the total amount of airborne particles is measured by this method.

8.2 Exposure controls

Personal protective equipment

Eye protection : Goggles

Hand protection : This information is not available.

Skin and body protection : Protective suit

Respiratory protection : Use suitable breathing protection if workplace concentration requires.

   No personal respiratory protective equipment normally required.

Environmental exposure controls

Water : The product should not be allowed to enter drains, water courses or the soil.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: liquid
- Colour: silver
- Odour: characteristic
- Odour Threshold: No data available
- pH: No data available
- Freezing point: No data available
- Boiling point/boiling range: No data available
- Flash point: > 100 °C
- Evaporation rate: No data available
- Flammability (solid, gas): No data available
- Auto-flammability: No data available
- Upper explosion limit: No data available
- Lower explosion limit: No data available
- Vapour pressure: No data available
- Relative vapour density: No data available
- Relative density: No data available
- Density: No data available
- Bulk density: No data available
- Water solubility: No data available
- Solubility in other solvents: No data available
- Partition coefficient: n-octanol/water: No data available
- Ignition temperature: No data available
- Decomposition temperature: No data available
- Viscosity
  - Viscosity, dynamic: No data available
  - Viscosity, kinematic: > 21 mm²/s (40 °C)
- Flow time: No data available
- Explosive properties: No data available
- Oxidizing properties: No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No decomposition if stored and applied as directed.

10.2 Chemical stability
No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous reactions: Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid: Do not allow evaporation to dryness.

10.5 Incompatible materials
Materials to avoid: This information is not available.

10.6 Hazardous decomposition products
Contact with water or humid air: This information is not available.

Thermal decomposition: This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
Components:
7429-90-5:
Acute inhalation toxicity: LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Further information
Product:
Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
Not relevant
12.6 Other adverse effects

**Product:**
Additional ecological information
Remarks: No data available

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SECTION 13: Disposal considerations

European Waste Catalogue: 08 03 12 - waste ink containing dangerous substances

13.1 Waste treatment methods
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

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SECTION 14: Transport information

14.1 UN number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
14.6 Special precautions for user
Remarks: Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

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SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

15.2 Chemical safety assessment
This information is not available.

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SECTION 16: Other information

Full text of R-Phrases
R11: Highly flammable.
Full text of H-Statements

H228 : Flammable solid.

Full text of other abbreviations

Flam. Sol. : Flammable solids

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SE / EN