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

1.1 Product identifier

<table>
<thead>
<tr>
<th>Trade name</th>
<th>ROTOVARIO 530 021 Silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material number</td>
<td>071728G60</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Company</th>
<th>ECKART GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Guentersthal 4</td>
</tr>
<tr>
<td></td>
<td>91235 Hartenstein</td>
</tr>
<tr>
<td>Telephone</td>
<td>+499152770</td>
</tr>
<tr>
<td>Telefax</td>
<td>+499152777008</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:msds.eckart@altana.com">msds.eckart@altana.com</a></td>
</tr>
<tr>
<td>Responsible/issuing person</td>
<td></td>
</tr>
</tbody>
</table>

1.4 Emergency telephone number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany:

<table>
<thead>
<tr>
<th>From outside US:</th>
<th>(001) 352-323-3500</th>
</tr>
</thead>
<tbody>
<tr>
<td>(First call in English, response in your language is possible)</td>
<td></td>
</tr>
<tr>
<td>US &amp; Canada (toll free)</td>
<td>1-800-5355-053</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

GHS Classification

- Flammable solids, Category 1, H228
- Serious eye damage/eye irritation, Category 2A, H319
- Specific target organ toxicity - single exposure, Category 3, Central nervous system, H336
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

ROTOVARIO 530 021 Silver

Version 1.4
Revision Date 24.01.2019
Print Date 28.01.2019

GHS-Labelling
Symbol(s):  

Signal word:  Danger

Hazard statements:  
H228: Flammable solid.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary statements:  
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label
Identification:  ethyl acetate
CAS-No.:  141-78-6

SECTION 3: Composition/information on ingredients
Substance name:  ROTOVARIO* 530 019 Silber
**SAFETY DATA SHEET**

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

**ROTOVARIO 530 021 Silver**

Version 1.4  
Revision Date 24.01.2019  
Print Date 28.01.2019

---

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EINECS-No.</th>
<th>Classification and labelling</th>
<th>Concentration[%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>231-072-3</td>
<td>Flam. Sol.; H228</td>
<td>60 - 100</td>
</tr>
<tr>
<td>ethyl acetate</td>
<td>141-78-6</td>
<td>205-500-4</td>
<td>Flam. Liq.; H225; Eye Irrit.; H319; STOT SE; H336</td>
<td>30 - 60</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, 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.

Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical advice.

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

If on skin, rinse well with water.

If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry sand, Special powder against metal fire

Unsuitable extinguishing media : Water, Foam, Carbon dioxide (CO2), ABC powder

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 : Use personal protective equipment.

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.
- Use personal protective equipment.
- Avoid dust formation.
- Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials 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).
- 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: Keep away from heat and sources of ignition. Avoid dust formation. Ensure adequate ventilation.

Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Earthing of containers and apparatuses is essential. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep away from sources of ignition - No smoking.

No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions: Protect from humidity and water. Do not allow to dry.
Advice on common storage: Do not store together with oxidizing and self-igniting products. 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

Germany:

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>AGW (Inhalable fraction)</td>
<td>10 mg/m3</td>
<td>2014-04-02</td>
<td>DE TRGS 900</td>
</tr>
<tr>
<td>Peak-limit: excursion factor (category)</td>
<td>2;(II)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td>Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>AGW (Alveolate fraction)</td>
<td>1,25 mg/m3</td>
<td>2014-04-02</td>
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<tr>
<td>Peak-limit: excursion factor (category)</td>
<td>2;(II)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td>Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**Personal protective equipment**

**Eye protection**

Wear face-shield and protective suit for abnormal processing problems.

**Hand protection**

**Material**

Solvent-resistant gloves (butyl-rubber)

**Remarks**

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the
protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Recommended preventive skin protection
Skin should be washed after contact.
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection
Long sleeved clothing
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection
Use suitable breathing protection if workplace concentration requires.
In the case of dust or aerosol formation use respirator with an approved filter.

Environmental exposure controls
General advice
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform
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: Pasty solid
- Colour: silver
- Odour: characteristic
- pH: No data available
- Freezing point: No data available
- Boiling point/boiling range: 76 °C
- Flash point: No data available
- Bulk density: No data available
- Flammability (solid, gas): The substance or mixture is a flammable solid with the category 1.
- Auto-flammability: not auto-flammable
- Upper explosion limit: No data available
- Lower explosion limit: No data available
- Vapour pressure: No data available
- Density: 2.07 g/cm³
- Water solubility: No data available
Miscibility with water  : immiscible
Solubility in other solvents  : No data available
Partition coefficient: n-octanol/water  : No data available
Ignition temperature  : No data available
Thermal decomposition  : No data available
Viscosity, dynamic  : No data available
Viscosity, kinematic  : No data available
Flow time  : No data available
Explosive properties  : Not explosive Vapours may form explosive mixture with air.

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  : Reacts with alkalis, acids, halogenes and oxidizing agents. Contact with acids and alkalis may release hydrogen. Mixture reacts slowly with water resulting in evolution of hydrogen. Vapours may form explosive mixture with air.

Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid : Do not allow to dry. Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids Bases Oxidizing agents Highly halogenated compounds

10.6 Hazardous decomposition products

Other information : No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

ethyl acetate :
Acute oral toxicity : Rat: 5 620 mg/kg

Acute inhalation toxicity : LC50 Rat: 56 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 Rabbit: > 18 000 mg/kg
Skin corrosion/irritation

**Product**
May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

**Product**
May cause irreversible eye damage.

Respiratory or skin sensitisation

No data available

Carcinogenicity

No data available

Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity
Further information

Product
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:
ethyl acetate (141-78-6):
Toxicity to daphnia and other aquatic invertebrates: (Daphnia (water flea)): 717 mg/l

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
No data available
12.6 Other adverse effects

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

---

SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents,
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

---

SECTION 14: Transport information

**14.1 UN number**

<table>
<thead>
<tr>
<th>ADR</th>
<th>1325</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
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<tr>
<td>CFR</td>
<td>1325</td>
</tr>
<tr>
<td>IMDG</td>
<td>1325</td>
</tr>
<tr>
<td>IATA</td>
<td>1325</td>
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</tbody>
</table>
14.2 Proper shipping name

<table>
<thead>
<tr>
<th>ADR</th>
<th>FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)</td>
</tr>
<tr>
<td>CFR</td>
<td>FLAMMABLE SOLIDS, ORGANIC, N.O.S. (Aluminum pigment paste)</td>
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<tr>
<td>IMDG</td>
<td>FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)</td>
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<tr>
<td>IATA</td>
<td>FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)</td>
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</table>

14.3 Transport hazard class

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>TDG</td>
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<tr>
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<tr>
<td>IMDG</td>
<td>4.1</td>
</tr>
<tr>
<td>IATA</td>
<td>4.1</td>
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</table>

14.4 Packing group

<table>
<thead>
<tr>
<th>ADR</th>
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<tbody>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>Classification Code</td>
</tr>
<tr>
<td>Hazard Identification Number</td>
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<tr>
<td>Labels</td>
</tr>
<tr>
<td>Tunnel restriction code</td>
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</table>

<table>
<thead>
<tr>
<th>TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>Labels</td>
</tr>
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</table>
14.5 Environmental hazards

IMDG

14.6 Special precautions for user

IMDG Code- segregation group:

: IMDG Code segregation group 15 - Powdered metals

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

No data available
SECTI ON 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

No data available

SECTI ON 16: Other information

Full text of H-Statements

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapour.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H228</td>
<td>Flammable solid.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
</tbody>
</table>

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.