SAFETY DATA SHEET

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

Rotovario UV 900 114 Silver

Version 1.1
Revision Date 07.01.2019
Print Date 14.01.2019

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

1.1 Product identifier
Trade name: Rotovario UV 900 114 Silver
Material number: 053498G60

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: msds.eckart@altana.com
Responsible/issuing person

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

GHS Classification
Skin irritation, Category 2, H315
Serious eye damage, Category 1, H318
Skin sensitisation, Category 1, H317
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

**Rotovario UV 900 114 Silver**

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**GHS-Labelling**

Symbol(s) :

![symbol]

Signal word : Danger

Hazard statements :

- **H315**: Causes skin irritation.
- **H317**: May cause an allergic skin reaction.
- **H318**: Causes serious eye damage.

Precautionary statements :

**Prevention:**

- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

- P302 + P352 IF ON SKIN: Wash with plenty of water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

- P501 Dispose of contents/ container to an approved waste disposal plant.

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

<table>
<thead>
<tr>
<th>Identification</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylidynetrimethanol, ethoxylated, esters with acrylic acid</td>
<td>28961-43-5</td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid</td>
<td>52408-84-1</td>
</tr>
<tr>
<td>dodecylphosphonic acid</td>
<td>5137-70-2</td>
</tr>
</tbody>
</table>

**Other hazards which do not result in classification**
Combustible Solids

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EINECS-No.</th>
<th>Classification and labelling</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5 231-072-3</td>
<td>Flam. Sol.;1; H228</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Propyldynetrimethanol, ethoxylated, esters with acrylic acid</td>
<td>28961-43-5</td>
<td>;2; H315 Skin Sens.;1; H317</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid</td>
<td>52408-84-1</td>
<td>Eye Irrit.;2A; H319 Skin Sens.;1; H317</td>
<td>5 - 10</td>
</tr>
<tr>
<td>dodecylphosphonic acid</td>
<td>5137-70-2 225-897-8</td>
<td>Skin Corr.;1B; H314 Eye Dam.;1; H318 STOT RE;2; H373 Aquatic Chronic;3; H412</td>
<td>1 - 5</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.
- Consult a physician.
- Show this safety data sheet to the doctor in attendance.

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.
- If skin irritation persists, call a physician.
- 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.
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- Remove contact lenses.
- Keep eye wide open while rinsing.
- If eye irritation persists, consult a specialist.

If swallowed:
- Keep respiratory tract clear.
- Do NOT induce vomiting.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person.
- If symptoms persist, call a physician.
- Take victim immediately to hospital.

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, ABC powder, Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

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

- Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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.
  Remove all sources of ignition.
  Use personal protective equipment.
  Avoid dust formation.
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. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion:
- Keep away from open flames, hot surfaces and sources of ignition. Earthing of containers and apparatuses is essential.
Avoid dust formation.

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.

Keep container tightly closed in a dry and well-ventilated place. 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.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Germany:**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type</th>
<th>Control</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### United States of America (USA):

<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>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (total dust)</td>
<td>50 Million particles per cubic foot</td>
<td>2012-07-01</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (Respirable)</td>
<td>5 mg/m3</td>
<td>2013-10-08</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (total dust)</td>
<td>15 mg/m3</td>
<td>2012-07-01</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (total)</td>
<td>10 mg/m3</td>
<td>2013-10-08</td>
<td></td>
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<td>7429-90-5</td>
<td>TWA (respirable fraction)</td>
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<tr>
<td>Substance</td>
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<td>Measure</td>
<td>Limit Value</td>
<td>Date</td>
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<tr>
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<td>------------</td>
<td>----------------------------------------------</td>
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<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (respirable fraction)</td>
<td>15 Million particles per cubic foot</td>
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<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
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<td>PEL (Total dust)</td>
<td>10 mg/m³</td>
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<td>TWA (Respirable fraction)</td>
<td>1 mg/m³</td>
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<td>5 mg/m³</td>
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<td>TWA (Respirable fraction)</td>
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<td>TWA (respirable fraction)</td>
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<tr>
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<td>TWA (Total dust)</td>
<td>15 mg/m³</td>
<td>1989-01-19</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (respirable dust fraction)</td>
<td>5 mg/m³</td>
<td>1989-01-19</td>
<td></td>
</tr>
<tr>
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<td>7429-90-5</td>
<td>TWA (welding fumes)</td>
<td>5 mg/m³</td>
<td>2013-10-08</td>
<td></td>
</tr>
<tr>
<td>aluminium powder</td>
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<td>TWA (pyro powders)</td>
<td>5 mg/m³</td>
<td>2013-10-08</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>Code</td>
<td>Description</td>
<td>Concentration</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
<td>------------------</td>
<td>---------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (Respirable fraction)</td>
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<tr>
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<td>TWA (Fumes)</td>
<td>5 mg/m³</td>
<td>1989-01-19</td>
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<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>2014-11-26</td>
<td></td>
</tr>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>2014-11-26</td>
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</tr>
<tr>
<td>stearic acid</td>
<td>57-11-4</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>2016-03-01</td>
<td></td>
</tr>
</tbody>
</table>

**United States of America (USA):**

Hazardous components without workplace control parameters

### 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

**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
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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.

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 respective authorities.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pasty solid</td>
</tr>
<tr>
<td>Colour</td>
<td>silver</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Combustible Solids</td>
</tr>
<tr>
<td>Auto-flammability</td>
<td>not auto-flammable</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Miscibility with water</td>
<td>immiscible</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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

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. Vapour/air-mixtures are explosive at intense warming.

Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid : Do not allow to dry.

No data available

10.5 Incompatible materials
Materials to avoid: Acids
Bases
Oxidizing agents
Highly halogenated compounds

10.6 Hazardous decomposition products

Hazardous decomposition products: No data available
Other information: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Product
May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product
May cause irreversible eye damage.

Respiratory or skin sensitisation

Product
Causes sensitisation.

May cause sensitisation of susceptible persons by skin contact.

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
No data available

Further information
Product
No data available
SECTION 12: Ecological information

12.1 Toxicity

Components:
Propyldiyne trimethanol, ethoxylated, esters with acrylic acid (28961-43-5):
Toxicity to daphnia and other aquatic invertebrates:
(Daphnia (water flea)): 10 232,73 mg/l
dodecylphosphonic acid (5137-70-2):
Ecotoxicology Assessment:
Long-term (chronic) aquatic hazard: Harmful to aquatic life with long lasting effects.

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. In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number
14.2 Proper shipping name
14.3 Transport hazard class
14.4 Packing group
14.5 Environmental hazards

14.6 Special precautions for user

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

No data available

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): Not applicable

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H228 : Flammable solid.
H314 : Causes severe skin burns and eye damage.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H373 : May cause damage to organs through prolonged or repeated exposure.
H412 : Harmful to aquatic life with long lasting effects.

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.