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

1.1 Product identifier

Trade name : Rotovario UV 900 114 Silver

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
Telex : +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

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Skin irritation , Category 2 H315: Causes skin irritation.
Serious eye damage , Category 1 H318: Causes serious eye damage.
Skin sensitisation , Category 1 H317: May cause an allergic skin reaction.

Classification (67/548/EEC, 1999/45/EC)
Irritant R36: Irritating to eyes.
Irritant R43: May cause sensitisation by skin contact.
Sensitising :

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Rotovario UV 900 114 Silver

Version 1.0
Revision Date 16.06.2014
Print Date 20.11.2018

Hazard pictograms:

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 soap and 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 or doctor/ physician.

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

Hazardous components which must be listed on the label:
28961-43-5 Propylidynetrimethanol, ethoxylated, esters with acrylic acid

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. EC-No. Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5 231-072-3 01-2119529243-45</td>
<td>F; R11</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 25 - &lt; 50</td>
</tr>
</tbody>
</table>
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.
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 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

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

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 fire fighting if necessary.

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.
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:
- 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:
- Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

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:
- 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.

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.

Advice on common storage: Do not store near acids. Do not store together with oxidizing and self-igniting products. Keep away from oxidising agents and strongly acid or alkaline materials. Never allow product to get in contact with water during storage. Keep away from oxidising 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>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m3</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

Further information: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

**Further information**

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Exposure Type</th>
<th>Limit</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Exposure Type</th>
<th>Limit</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Respirable)</td>
<td>4 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>
than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
<thead>
<tr>
<th>Substance</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>0.8 mg/kg</td>
</tr>
<tr>
<td>Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)</td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>16.2 mg/m³</td>
</tr>
<tr>
<td>Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)</td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>0.5 mg/kg</td>
</tr>
<tr>
<td>Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)</td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>4.9 mg/m³</td>
</tr>
</tbody>
</table>

**DNEL:**

**Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)**

- **End Use:** Workers
- **Exposure routes:** Skin contact
- **Potential health effects:** long term – systemic effects
- **Value:** 0.8 mg/kg

- **End Use:** Workers
- **Exposure routes:** Inhalation
- **Potential health effects:** long term – systemic effects
- **Value:** 16.2 mg/m³

- **End Use:** Consumers
- **Exposure routes:** Skin contact
- **Potential health effects:** long term – systemic effects
- **Value:** 0.5 mg/kg

- **End Use:** Consumers
- **Exposure routes:** Inhalation
- **Potential health effects:** long term – systemic effects
- **Value:** 4.9 mg/m³

- **End Use:** Consumers
- **Exposure routes:** Ingestion
- **Potential health effects:** long term – systemic effects
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Rotovario UV 900 114 Silver

Value: 1.4 mg/kg

DNEL:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
End Use: Workers
Exposure routes: Skin contact
Potential health effects: long term – systemic effects
Value: 1.92 mg/kg

DNEL:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
End Use: Workers
Exposure routes: Inhalation
Potential health effects: long term – systemic effects
Value: 16.22 mg/m³

DNEL:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: long term – systemic effects
Value: 1.39 mg/kg

DNEL:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: long term – systemic effects
Value: 1.15 mg/kg

DNEL:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: long term – systemic effects
Value: 4.87 mg/m³

PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
Soil
Value: 0.00587 mg/kg

PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
Fresh water
Value: 0.00195 mg/l

PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
Fresh water sediment
Value: 0.0082 mg/kg

PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
STP
Value: 10 mg/l
PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
Value: 0.000195 mg/l

PNEC:
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)
Value: 0.00082 mg/kg

PNEC:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
Value: 0.00111 mg/kg

PNEC:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
Value: 0.00574 mg/l

PNEC:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
Value: 0.01697 mg/kg

PNEC:
Glycerol, propoxylated, esters with acrylic acid (52408-84-1)
Value: 10 mg/l

8.2 Exposure controls

Personal protective equipment
Eye protection : Goggles
Eye wash bottle with pure water
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:
Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

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
**Rotovario UV 900 114 Silver**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</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>&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>no data available</td>
</tr>
<tr>
<td>Auto-flammability</td>
<td>no data available</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>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>
<tr>
<td>Auto-ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>no data available</td>
</tr>
<tr>
<td>Flow time</td>
<td>no data available</td>
</tr>
</tbody>
</table>

### 9.2 Other information

no data available

---

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No decomposition if stored and applied as directed.
Rotovario UV 900 114 Silver

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

10.3 Possibility of hazardous reactions
Hazardous reactions: Contact with acids and alkalis may release hydrogen.
Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid: Do not allow evaporation to dryness.
no data available

10.5 Incompatible materials
Materials to avoid: Acids
Bases
Oxidizing agents

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

Components:
7429-90-5:
Acute inhalation toxicity: LC50 rat: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Product
Extremely corrosive and destructive to tissue.

**Components:**
28961-43-5 :
May cause skin irritation and/or dermatitis.

**Serious eye damage/eye irritation**

**Product**
May cause irreversible eye damage.

**Components:**
28961-43-5 :
May cause irreversible eye damage.

**Respiratory or skin sensitisation**

**Product**
Causes sensitisation.

**Components:**
28961-43-5 :
Causes sensitisation.

**Carcinogenicity**
no data available

**Toxicity to reproduction/fertility**
no data available

**Reprod.Tox./Development/Teratogenicity**
no data available

**STOT - single exposure**
Rotovario UV 900 114 Silver

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no data available

STOT - repeated exposure
no data available

Aspiration toxicity
no data available

Further information

Product
no data available

Components:
28961-43-5 :
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
no data available
12.6 Other adverse effects

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

**Components:**
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5):
Additional ecological information: no data available

SECTION 13: Disposal considerations

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

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.

**Contaminated packaging:**
- Empty remaining contents.
- Dispose of as unused product.
- Do not re-use empty containers.

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
Rotovario UV 900 114 Silver

no data available

SECTION 15: Regulatory information

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

no data available

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Full text of R-Phrases

R11   Highly flammable.
R34   Causes burns.
R36   Irritating to eyes.
R43   May cause sensitisation by skin contact.

Full text of H-Statements

H228   Flammable solid.
H314   Causes severe skin burns and eye damage.
H317   May cause an allergic skin reaction.
H318   Causes serious eye damage.
H319   Causes serious eye irritation.

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.