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

ROTOVARIO UV FPG 950 214 Silver

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

1.1 Product identifier
Trade name: ROTOVARIO UV FPG 950 214 Silver
Material number: 053610N20

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)
Skin irritation, Category 2
H315: Causes skin irritation.
Eye irritation, Category 2
H319: Causes serious eye irritation.
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: 

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements :
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements :
P280 Wear protective gloves/ eye protection/ face protection.
Response: P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
28961-43-5 Propyldienetrimethanol, ethoxylated, esters with acrylic acid
52408-84-1 Glycerol, propoxylated, esters with acrylic acid
15625-89-5 2,2-bis(acryloyloxyethyl)butyl acrylate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No)</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: 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.

If inhaled: This information is not available.

In case of eye contact: Remove contact lenses.
If eye irritation persists, consult a specialist.

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

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: This information is not available.
Unsuitable extinguishing media: This information is not available.

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
This information is not available.

6.2 Environmental precautions
This information is not available.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up: Do not flush with water.

6.4 Reference to other sections
This information is not available.

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.
### 7.3 Specific end use(s)

This information is not available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Occupational Exposure Limits**

<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</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>GB EH40 (2011-12-01)</td>
</tr>
<tr>
<td>(stabilised)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminium powder</td>
<td>7429-90-5</td>
<td>TWA (Respirable)</td>
<td>4 mg/m³</td>
<td>GB EH40 (2011-12-01)</td>
</tr>
<tr>
<td>(stabilised)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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.
aluminium powder (stabilised) TWA (Respirable) 4 mg/m³ GB EH40 (2005-04-06)
Further information
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.

aluminium powder (stabilised) TWA (inhalable dust) 10 mg/m³ GB EH40 (2011-12-01)
Further information
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.
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<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>aluminium powder (stabilised)</td>
<td></td>
<td>TWA (Respirable dust)</td>
<td>4 mg/m3</td>
<td>GB EH40 (2011-12-01)</td>
</tr>
</tbody>
</table>

Further information

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.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</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</td>
<td>0.8 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic</td>
<td>16.2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic</td>
<td>0.5 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic</td>
<td>4.9 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic</td>
<td>1.4 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid (52408-84-1)</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic</td>
<td>1.92 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic</td>
<td>16.22 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic</td>
<td>1.39 mg/kg</td>
</tr>
</tbody>
</table>
# SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

## ROTOVARIO UV FPG 950 214 Silver

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Print Date</th>
<th>Date of first issue</th>
</tr>
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<tbody>
<tr>
<td>1.1</td>
<td>17.11.2016</td>
<td>102000021558</td>
<td>20.11.2018</td>
<td>04.11.2015</td>
</tr>
</tbody>
</table>

### Effects

<table>
<thead>
<tr>
<th>Category</th>
<th>Exposure Route</th>
<th>Exposure Duration</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td>Skin contact</td>
<td>Long term – systemic effects</td>
<td>1.15 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long term – systemic effects</td>
<td>4.87 mg/m3</td>
<td></td>
</tr>
<tr>
<td>2-ethyl-2-[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate (15625-89-5)</td>
<td>Inhalation</td>
<td>Long term – systemic effects</td>
<td>16.2 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long term – systemic effects</td>
<td>1.39 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long term – systemic effects</td>
<td>4.9 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propyliodinetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)</td>
<td>Soil</td>
<td>0.00587 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.00195 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.0082 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>10 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.000195 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.00082 mg/kg</td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid (52408-84-1)</td>
<td>Soil</td>
<td>0.00111 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.00574 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.01697 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.000574 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.001697 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>10 mg/l</td>
</tr>
<tr>
<td>2-ethyl-2-[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate (15625-89-5)</td>
<td>Soil</td>
<td>0.0043 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.00147 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.0062 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.000147 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.00062 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>6.25 mg/l</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Personal protective equipment
Eye protection : Safety glasses
Hand protection : This information is not available.
Skin and body protection : Protective suit
Respiratory protection : No personal respiratory protective equipment normally required.
Environmental exposure controls : This information is not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Pasty solid
Colour : silver
Odour : No data available
Odour Threshold : No data available
pH : No data available
Freezing point : > 100 °C
Flash point : > 100 °C
Evaporation rate : No data available
Flammability (solid, gas) : The product is not flammable.
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, dynamic : No data available
Viscosity, kinematic : No data available
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: No data available

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

Skin corrosion/irritation

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

Serious eye damage/eye irritation

Product:
Result: Eye irritation
Components:
28961-43-5:
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

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

Further information

Product:
Remarks: No data available

Components:
28961-43-5:
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

Product: Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product: Additional ecological information: Remarks: No data available

Components:
28961-43-5:
Additional ecological information: Remarks: No data available
SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

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.

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

This information is not available.

SECTION 16: Other information

Full text of R-Phrases

R11 : Highly flammable.
R34 : Causes burns.
R36 : Irritating to eyes.
R36/38 : Irritating to eyes and skin.
R43 : May cause sensitisation by skin contact.

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.

Eye Dam.: Serious eye damage
Eye Irrit.: Eye irritation
Flam. Sol.: Flammable solids
Skin Corr.: Skin corrosion
Skin Irrit.: Skin irritation
Skin Sens.: Skin sensitisation

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.

GB / EN