SECTION 1. IDENTIFICATION

Product name: Rotovario UV 900 114 Silver
Product code: 053498G60

Manufacturer or supplier's details
Company name of supplier: ECKART GmbH
Address: Guentersthal 4
Hartenstein 91235
Telephone: +499152770
Telefax: +499152777008
Emergency telephone: CHEMTREC: 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations
Skin irritation: Category 2
Serious eye damage: Category 1
Skin sensitization: Category 1

GHS label elements
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:
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P333 + P313 If skin irritation or rash occurs: 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 ingredients which must be listed on the label:
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.,.alpha.-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]-
Phosphonic acid, P-dodecyl-

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether</td>
<td>28961-43-5</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Rotovario UV 900 114 Silver

<table>
<thead>
<tr>
<th>with 2-ethyl-2-((hydroxymethyl)-1,3-propanediol (3:1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Octadecanoic acid</td>
<td>57-11-4</td>
</tr>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.,.alpha.&quot;-1,2,3-propanetriyltris.[omega.-{(1-oxo-2-propen-1-yl)oxy}]-</td>
<td>52408-84-1</td>
</tr>
<tr>
<td>Phosphonic acid, P-dodecyl-</td>
<td>5137-70-2</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice: Take the victim into fresh air.
Do not leave the victim unattended.
Move out of dangerous area.
Consult a physician.
Show this material 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.

Most important symptoms and effects, both acute and delayed: Causes skin irritation.
May cause an allergic skin reaction.
delayed Causes serious eye damage.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry sand
                              ABC powder
                              Foam

Unsuitable extinguishing media : High volume water jet

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

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.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
                                                                     Use personal protective equipment.

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.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.
                                                      Soak up with inert absorbent material (e.g. sand, silica gel,
                                                      acid binder, universal binder, sawdust).
                                                      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.
SECTION 7. HANDLING AND STORAGE

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

Advice on safe handling:
- Do not breathe vapors/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.
- To avoid spills during handling keep bottle on a metal tray.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage:
- 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.

Materials to avoid:
- Do not store near acids.
- 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.

Further information on storage stability:
- No decomposition if stored and applied as directed.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>TWADEV</td>
<td>10 mg/m3</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>1 mg/m3</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>10 mg/m3</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWADEV</td>
<td>10 mg/m3</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>1 mg/m3 (Aluminum)</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWADEV (Fumes)</td>
<td>5 mg/m3 (Aluminum)</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable fraction)</td>
<td>1 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>57-11-4</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Personal protective equipment

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

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.

Eye protection : Goggles
Wear face-shield and protective suit for abnormal processing
problems.

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

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Color : silver
Odor : characteristic
Odor Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Boiling point/boiling range : > 100 °C

Flash point : > 100 °C
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit / Upper
flammability limit : No data available
Lower explosion limit / Lower
flammability limit : No data available
Vapor pressure : No data available
Relative density : No data available
Solubility(ies)
Water solubility : insoluble
Partition coefficient: n-
octanol/water : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity
: No decomposition if stored and applied as directed.

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

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

Conditions to avoid
: Do not allow evaporation to dryness.

: No data available

Incompatible materials
: Acids
: Bases
: Oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Skin corrosion/irritation
Causes skin irritation.

Ingredients:
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):
Result: Skin irritation

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation
Causes serious eye damage.

Ingredients:
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):
Remarks: Vapors may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.
Respiratory sensitization
Not classified based on available information.

Ingredients:
Poly(oxy-1,2-ethanediyl), \(\alpha\)-hydro-\(\omega\)-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):
Result: May cause sensitization by skin contact.
Remarks: Causes sensitization. May cause sensitization of susceptible persons by skin contact.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Further information

Ingredients:
Poly(oxy-1,2-ethanediyl), \(\alpha\)-hydro-\(\omega\)-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):
Remarks: No data available

Octadecanoic acid:
Remarks: No data available
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):
Toxicity to daphnia and other aquatic invertebrates: (Daphnia): 10,232.73 mg/l

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Other adverse effects
No data available

Ingredients:
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Additional ecological information: No data available

Octadecanoic acid:

Additional ecological information: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: 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

International Regulations
Remarks: Not classified as dangerous in the meaning of transport regulations.

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

Domestic regulation

SECTION 15. REGULATORY INFORMATION

Canadian PBT Chemicals: This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:
Rosin, hydrogenated

NPRI Ingredients: Aluminum

The ingredients of this product are reported in the following inventories:

DSL: This product contains one or several components that are not on the Canadian DSL nor NDSL.

TSCA: On TSCA Inventory

Canadian lists
No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations
ACGIH: USA. ACGIH Threshold Limit Values (TLV)
CA BC OEL: Canada. British Columbia OEL
CA QC OEL: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

ACGIH / TWA: 8-hour, time-weighted average
CA AB OEL / TWA: 8-hour Occupational exposure limit
CA BC OEL / TWA: 8-hour time weighted average
CA QC OEL / TWAEV: Time-weighted average exposure value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen,
The information provided in this Material 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.