1. Identification of the substance/mixture and of the company/undertaking

Product identifier
Name of product Rivolta T.R.S. Plus (Aerosol PB)

Manufacturer/distributor
Bremer & Leguil GmbH
Am Burgacker 30-42, D-47051 Duisburg
Postbox 100221, D-47002 Duisburg
Phone +49(0)203/99230, Fax +49(0)203/25901
E-Mail info@bremer-leguil.de
Internet www.bremer-leguil.de

Advice
Phone +49(0)203/99230
E-mail (competent person):
product-safety-management@bremer-leguil.de

Emergency advice
Giftinformationszentrale Mainz
Phone +49(0)-6131/19240

Recommended intended purpose(s)
Creep oil with lubrication characteristic

2. Hazards identification

Classification according to 67/548/EEC or 1999/45/EC
F+; R12
R-phrases
12 Extremely flammable.

Labelling according to 67/548/EEC or 1999/45/EC

Remarks for labelling
The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.

F+ Extremely flammable

R-phrases
12 Extremely flammable.

S-phrases
16 Keep away from sources of ignition - No smoking.
2 Keep out of the reach of children.
23 Do not breathe spray.

Hazardous ingredients for labeling
mixture of propane and butane

Special rules for supplemental label elements for certain mixtures
aerosol
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material. Use only in well ventilated areas. Without sufficient ventilation formation of explosive mixtures may be possible.

**Information pertaining to special dangers for human and environment**
Aerosol can - do not inhale spray

---

### 3. Composition/information on ingredients

**Description**
Creep oil based on synthetic oils and synthetic isoparaffines
Propellant: propane/butane

---

#### 3.1 Hazardous ingredients

<table>
<thead>
<tr>
<th>CAS No</th>
<th>EC No</th>
<th>Name</th>
<th>[% weight]</th>
<th>Classification according to 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>68551-17-7</td>
<td>271-366-9</td>
<td>mixture of isoparaffines</td>
<td>40 - 60</td>
<td>Xn R 65, 66</td>
</tr>
<tr>
<td>68606-25-7</td>
<td>271-734-9</td>
<td>mixture of propane and butane</td>
<td>15 - 35</td>
<td>F+, R12</td>
</tr>
</tbody>
</table>

---

**REACH**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Name</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>68551-17-7</td>
<td>mixture of isoparaffines</td>
<td>[2119472146-39]</td>
</tr>
</tbody>
</table>

---

### 4. First aid measures

**General information**
Remove contaminated soaked clothing immediately.

**In case of inhalation**
Ensure of fresh air.

**In case of skin contact**
Wash with soap and water, apply emollient cream.

**In case of eye contact**
In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**In case of ingestion**
Do not induce vomiting. Consult a physician

---

### 5. Firefighting measures

**Suitable extinguishing media**
ABC-powder, foam, dry fire-extinguishing substance

**Extinguishing media which must not be used for safety reasons**
water

**Special hazards arising from the substance or mixture**
No particular dangers due to the product
Aerosol - overheated cans will explode and be thrown away with big force

**Special protective equipment for fire-fighters**
no
6. Accidental release measures

Personal precautions
Ensure adequate ventilation.
Keep away sources of ignition.

Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up
Take up residues with liquid absorbing material (sand, kieselgur, universal binder, saw dust). Discharge material as waste. Exhaust vapours at the ground.
Separate leaky cans.

7. Handling and storage

Advice on safe handling
Do not inhale aerosol
Use only in well ventilated areas, keep away from sources of ignition
Do not spray into flames or against incandescent material
Do not pierce or burn, even after use

Advice on protection against fire and explosion
Cool endangered containers with water

Requirements for storage rooms and vessels
Storing at room temperature in sufficient ventilated area
Take care for storage conditions of aerosol products

Further information on storage conditions
Protect from heat.
Protect from heat and direct solar radiation.

Information on storage stability
Storage time: 24 months.

8. Exposure controls/personal protection

Ingredients with occupational exposure limits to be monitored

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Name</th>
<th>Code</th>
<th>[mg/m³]</th>
<th>[ppm]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>68551-17-7</td>
<td>Synthetic isoparaffines</td>
<td>8 hours</td>
<td>600</td>
<td>2(II)</td>
<td>AGS</td>
</tr>
<tr>
<td>68606-25-7</td>
<td>mixture of propane and butane</td>
<td>8 hours</td>
<td>1000</td>
<td></td>
<td>MAK</td>
</tr>
</tbody>
</table>

Respiratory protection
When product is sprayed in rooms without ventilation wear respiratory protection (filter mask, filter AX, brown); in case of concentration > 1% use an air independant respirator

Hand protection
Gloves (solvent resistant), p.e. nitrile rubber (permeation time > 480 min/0,33mm thickness according to DIN/EN 374)
Solvent-resistant skin protection crème as prevention

Eye protection
Safety goggles with side protection in case of spraying the product

General protective measures
The use and the selection of the safety equipment depends on the local working conditions and has to be decided by the responsible officer.
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
</tr>
</thead>
<tbody>
<tr>
<td>aerosol</td>
<td>amber</td>
<td>weak</td>
</tr>
</tbody>
</table>

Important health, safety and environmental information

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Temperature</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH value in delivery state</td>
<td></td>
<td></td>
<td></td>
<td>not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 63 °C</td>
<td></td>
<td>DIN EN  ISO 2719</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>ca. 265 °C</td>
<td></td>
<td>DIN 51794</td>
<td></td>
</tr>
<tr>
<td>Autoignition</td>
<td>not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>0,6 Vol-%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>6,5 Vol-%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 hPa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>0,8 g/cm³</td>
<td>20 °C</td>
<td>DIN 51757</td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>20 mg/l</td>
<td>20 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity kinematic</td>
<td>4,1 mm²/s</td>
<td>20 °C</td>
<td>DIN 51562</td>
<td></td>
</tr>
</tbody>
</table>

Oxidizing properties
product is combustible

Explosive properties
At use possible formation of explosive/highly flammable mixtures of vapours with the air.
Danger of bursting at temperatures above 50°C

Additional information
Inside pressure 360 kPa
These informations are valid for the active substance

10. Stability and reactivity

Conditions to avoid
Protect from sunlight and temperatures above 50°C Aerosol product

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
no

Thermal decomposition

Remark        no
11. Toxicological information

Acute toxicity/Irritability/Sensitization

<table>
<thead>
<tr>
<th>Value/Validation</th>
<th>Species</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 acute oral</td>
<td></td>
<td></td>
<td>Can lead to digestive discomfort and diarrhoea. May cause lung damage.</td>
</tr>
<tr>
<td>LC50 acute inhalation</td>
<td></td>
<td></td>
<td>High concentrations may be irritating to the respiratory tract</td>
</tr>
<tr>
<td>Irritability skin</td>
<td>Will defeat the skin during prolonged contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability eye</td>
<td>Low irritant. No injuries of eye tissues.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Ecological information

General regulation
Product does not contain halogenated hydrocarbons (e.g. CFC, CHC), aromatic components (toluene, xylene), PCB, PCT.

13. Disposal considerations

<table>
<thead>
<tr>
<th>Waste code No.</th>
<th>Name of waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 05 04*</td>
<td>gases in pressure containers (including halons) containing dangerous substances</td>
</tr>
</tbody>
</table>

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

Recommendations for the product
Usually there is no product to discharge after use

Recommendations for packaging
Empty and non-pressurized cans: EWC-No. 15 01 04
Totally emptied packaging may be taken for recycling.

General information
Spray cans with residues: EWC-No. 160504 gases containing hazardous substances in pressurized containers.

14. Transport information

<table>
<thead>
<tr>
<th>Land and inland navigation transport ADR/RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 1950 AEROSOLS, LIMITED QUANTITY, 2.1, (D), Classification code: 5F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marine transport IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 1950 Aerosols, limited quantities, 2.1</td>
</tr>
<tr>
<td>EmS-Nr.: F-D, S-U</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air transport ICAO/IATA-DGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN 1950 Aerosols, flammable, 2.1</td>
</tr>
<tr>
<td>Packing Instr.: 203</td>
</tr>
</tbody>
</table>

15. Regulatory information
16. Other information

Recommendend uses and restrictions
This information relates only to the product designated. It may not be valid in combination with any other materials or in any process.
Such information is the best of our knowledge and belief accurate and reliable as to the date indicated. However the information given here is submitted without any liability on our part.

Product is admitted for the use in the food industry

Further information
Main changes to preliminary versions are marked with "!" on the left side of the pages.
The following R-phrases do not represent the classification of the total product. They refer to the pure ingredients, mentioned in point 3.

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)
R 12 Extremely flammable.
R 65 Harmful: may cause lung damage if swallowed.
R 66 Repeated exposure may cause skin dryness or cracking.
H304 May be fatal if swallowed and enters airways.