

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 09.03.2018

Revision: 09.03.2018

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

- **1.1 Product identifier**
- **Trade name: P900-RM12-PLUS**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Antifreeze
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hepu Autoteile GmbH  
Am Kreuzweg 2  
D-32689 Kalletal-Hohenhausen  
Tel: +49 (0) 5264 6483-0  
Fax: +49 (0) 5264 6483-33  
E-Mail: Info@hepu.de
- **Further information obtainable from:**  
Product Safety Department  
Tel: +49 (0) 5264 6483-0  
Fax: +49 (0) 5264 6483-33
- **1.4 Emergency telephone number:**  
Informationszentrale gegen Vergiftungen  
des Landes Nordrhein-Westfalen  
Tel.: +49 (0) 228 / 19 240

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** Warning

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· **Hazard-determining components of labelling:**

ethanediol

· **Hazard statements**

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe mist/vapours/spray.

P264 Wash the skin thoroughly after handling.

P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 107-21-1	ethanediol	30-50%
EINECS: 203-473-3	☠ STOT RE 2, H373; ⚠ Acute Tox. 4, H302	
CAS: 3164-85-0	potassium 2-ethylhexanoate	0.5-1.5%
EINECS: 221-625-7	☠ Repr. 2, H361d; ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Position and transport stably in side position.

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Generally the product does not irritate the skin.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **After swallowing:**  
Do not induce vomiting; call for medical help immediately.  
A person vomiting while laying on their back should be turned onto their side.  
Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
If swallowed or in case of vomiting, danger of entering the lungs.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear fully protective suit.  
Mouth respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Cool endangered receptacles with water spray.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Store in cool, dry place in tightly closed receptacles.  
Ensure good ventilation/exhaustion at the workplace.

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- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
  - **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:** Store away from foodstuffs.
  - **Further information about storage conditions:** None.
  - **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:****107-21-1 ethanediol**

WEL	Short-term value: 104** mg/m <sup>3</sup> , 40** ppm
	Long-term value: 10* 52** mg/m <sup>3</sup> , 20** ppm
	Sk *particulate **vapour

- **DNELs**  
potassium 2-ethylhexanoate (CAS: 3164-85-0):  
Industry - Inhalation; Long term systemic effects: 32 mg/m<sup>3</sup>  
Industry - Dermal; Long term systemic effects: 12 mg/m<sup>3</sup>  
Consumer - Inhalation; Long term systemic effects: 8 mg/m<sup>3</sup>  
Consumer - Dermal; Long term systemic effects: 6 mg/m<sup>3</sup>  
Consumer - Oral; Long term systemic effects: 2.5 mg/kg/day

Ethanediol (CAS: 107-21-1):  
Industry Inhalation. Long Term Local Effects 35 mg/m<sup>3</sup>  
Industry Dermal Long Term Systemic Effects 106 mg/kg  
Consumer Inhalation. Long Term Local Effects 7 mg/m<sup>3</sup>  
Consumer Dermal Long Term Systemic Effects 53 mg/m<sup>3</sup>

- **PNECs**  
potassium 2-ethylhexanoate (CAS: 3164-85-0):  
Fresh water; 0.36 mg/l  
Marine water; 0.036 mg/l  
Intermittent release; 0.493 mg/l  
STP; 71.7 mg/l  
Sediment (Freshwater); 6.37 mg/l  
Sediment (Marinewater); 0.637 mg/l  
Soil; 1.06 mg/kg

Ethanediol (CAS: 107-21-1):  
Freshwater 10 mg/l  
Marinewater 1 mg/l  
STP 199.5 mg/l  
Sediment Freshwater 20.9 mg/kg  
Soil 1.53 mg/kg

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- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Clean skin thoroughly immediately after handling the product.
  - Immediately remove all soiled and contaminated clothing
  - Avoid contact with the eyes.
  - Do not eat, drink, smoke or sniff while working.
  - Do not inhale gases / fumes / aerosols.
  - Keep away from foodstuffs, beverages and feed.
  - Wash hands before breaks and at the end of work.
- **Respiratory protection:**
  - Filter A/P2
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
  - PVA gloves
  - Nitrile rubber, NBR
  - Butyl rubber, BR
  - Neoprene gloves
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
  -  Tightly sealed goggles
- **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	Violet
· <b>Odour:</b>	Mild
· <b>Odour threshold:</b>	Not determined.
- **pH-value:** Not determined.

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· <b>Change in condition</b>	
<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	~1,07 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>9.2 Other information</b>	No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
To avoid thermal decomposition do not overheat.  
No decomposition if used and stored according to specifications.  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide  
Carbon dioxide

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**SECTION 11: Toxicological information**· **11.1 Information on toxicological effects**

- **Acute toxicity**  
Harmful if swallowed.

· **LD/LC50 values relevant for classification:****107-21-1 ethanediol**

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
Reproductive Toxicity - Fertility  
Fertility: Dose Level: >1000 mg/kg Oral Rat P  
Not expected to be a reproductive toxicant
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**  
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential**  
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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**· European waste catalogue**

16 01 14\* antifreeze fluids containing dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- |  |                 |
|--|-----------------|
| · <b>14.1 UN-Number</b><br>· <b>ADN, IMDG, IATA</b>                              | Void            |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>           | Void            |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADN/R Class:</b>                | Void            |
| · <b>14.4 Packing group</b><br>· <b>IMDG, IATA</b>                               | Void            |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>               | No              |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Void            |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
  - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
  - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - H302 Harmful if swallowed.
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.
  - H361d Suspected of damaging the unborn child.
  - H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Department issuing SDS:** Product safety department
- **Contact:** Mr. Grimm

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**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Repr. 2: Reproductive toxicity – Category 2  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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