



Safety Data Sheet

Robinair Premium High Vacuum Pump Oil

SDS Revision Date:

08/19/2015

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

1.1. Product identifier

Product Identity Robinair Premium High Vacuum Pump Oil
Alternate Names RA 13203, RA 13204; RA 13119

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Lubricant, Compressor Lubricant, Vacuum Pump Lubricant
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Bosch Automotive Services Solutions
Lürriper Strasse 62
41065 Mönchengladbach Germany

Emergency

CHEMTREC

24 hour Emergency Telephone No. +1 202-366-4488 (outside the USA).

2. Hazard identification of the product

{Sec2Note}

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Not Classified

Classification according to 67/548/EEC or 1999/45/EC.

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: Not classified.



2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

According to Regulation (EC) No 1272/2008

| | |
|------------------------------------|---|
| Signal word | No signal word. |
| Hazard statements | No known significant effects or critical hazards. |
| Prevention | No GHS prevention statements |
| Response | No GHS response statements |
| Storage | No GHS storage statements |
| Disposal | No GHS disposal statements |
| Hazard symbol or symbols | |
| Indication of danger | |
| Risk phrases | This product is not classified according to EU legislation. |
| Safety phrases | |
| Hazardous ingredients | |
| Supplemental label elements | |

2.3. Other hazards

None Known

3. Composition/information on ingredients

If the product contains substances that present a health hazard within the meaning of the Dangerous Substances Directive 67/548/EC, or have occupational exposure limits detailed in EH40, these substances are listed below.

| Ingredient/Chemical Designations | Weight % | 67/548/EEC Classification* | EC No. 1272/2008 Classification* | Notes |
|--|----------|----------------------------|----------------------------------|-------|
| Hydrotreated Distillate, Heavy Paraffin CAS Number: 64742-54-7, EC No. 265-157-1 Index No.: | > 95% | Not classified. | Not classified. | [2] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Notes

[1] Substance classified with a health or environmental hazard hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

4. First aid measures

4.1. Description of first aid measures

| | |
|-------------------|---|
| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| Inhalation | Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth. |
| Eye | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention. |
| Skin | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. |
| Ingestion | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

4.2. Most important symptoms and effects, both acute and delayed

Potential acute health effects

| | |
|---------------------|--|
| Eye Contact | No known significant effects or critical hazards |
| Inhalation | No known significant effects or critical hazards |
| Skin Contact | No known significant effects or critical hazards |
| Ingestion | No known significant effects or critical hazards |

Over-exposure signs/symptoms

| | |
|---------------------|--|
| Eye Contact | No known significant effects or critical hazards |
| Inhalation | No known significant effects or critical hazards |
| Skin Contact | No known significant effects or critical hazards |
| Ingestion | No known significant effects or critical hazards |

4.3. Indication of any immediate medical attention and special treatment needed

| | |
|----------------------------|---|
| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled |
| Specific treatments | No specific treatment. |

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

Foam (Specifically trained personnel only) Water fog (Specifically trained personnel only) Dry chemical powder
Carbon dioxide. Other inert gases (subject to regulations) Sand or earth

Unsuitable extinguishing media

Do not use direct water jets on the burning product; they could cause splattering and spread the fire.

Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Hazards from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products

Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), sulphur oxides (SO_x), smoke and irritating vapours as products of incomplete combustion

5.3. Advice for fire-fighters

Special precautions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European Standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information

Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

ERG Guide No. ----

6. Accidental release measures

6.1. Environmental precautions

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2. Methods and materials for containment and cleaning up

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

7. Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Recommendations

Please see Exposure Scenario(s).

Industrial sector specific solutions Not available.

8. Exposure controls and personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters Occupational exposure limits

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|--|---|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | ACGIH TLV (United States). Notes: (Mineral oil) TWA: 5 mg/m³, (Inhalable fraction) 8 hour(s). |

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---------------------------|------|----------------------|-----------------------|------------|---------|
| Other Lubricant Base Oils | DNEL | Long term Inhalation | 5.4 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 1.2 mg/m ³ | Consumers | Local |

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): neoprene, nitrile, Viton®.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: organic vapour filter

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

| | |
|--|--|
| Appearance | Clear Liquid |
| Odor | Odorless |
| Odor threshold | Odorless to Mild Petroleum oil like |
| pH | Not Measured |
| Melting point / freezing point | Not Measured |
| Initial boiling point and boiling range | Not Measured |
| Flash Point | 245°C Cleveland Open Cup |
| Evaporation rate (Ether = 1) | Not Measured |
| Flammability (solid, gas) | Low fire hazard. This material must be heated before ignition will occur. |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: Not Available Upper Explosive Limit: Not Available |
| Vapor pressure (Pa) | Not Measured |
| Vapor Density | Not Measured |
| Specific Gravity | 0.867 Kg/L @ 15°C (Water =1) |
| Solubility in Water | Not Measured |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |

| | |
|---------------------------|----------------|
| Auto-ignition temperature | Not measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt) | 42 cSt +/- 10% |

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Reactive with oxidizing agents and acids.

10.6. Hazardous decomposition products

May release CO_x, NO_x, SO_x, smoke and irritating vapors when heated to decomposition.

11. Toxicological information

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---------------------------|---------------------------------|---------|-------------------------|----------|
| Other Lubricant Base Oils | LC50 Inhalation Dusts and mists | Rat | >5000 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |

Conclusion/Summary Not available.

Irritation/Corrosion

Conclusion/Summary Not available.

Sensitisation

Conclusion/Summary Not available.

Mutagenicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary All components listed in Annex VI to which Note L applies, and contained in the product, have been shown to contain less than 3% DMSO extractables as measured by IP346.

Reproductive toxicity

Conclusion/Summary Not available.

Teratogenicity

Conclusion/Summary Not available.

Information on the likely routes of exposure

Routes of entry anticipated Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation No specific data.

Ingestion No specific data.

Skin contact Repeated skin exposure can produce local skin destruction or dermatitis.

Eye contact No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not Available

Potential delayed effects Not Available

Long term exposure

Potential immediate effects Not Available

Potential delayed effects Not Available

Potential chronic health effects Not Available.

Conclusion/Summary Not Available

General No known significant effects or critical hazards.

Carcinogenicity Not listed as carcinogenic by OSHA, NTP or IARC.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Other information Not Available

12. Ecological information

12.1. Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|----------------------|---------|----------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | NOEC \geq 100 mg/l | Algae | 72 hours |

Conclusion/Summary Not available.

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

There is no data available on the preparation itself.

12.4. Mobility in soil

There is no data available on the preparation itself.

12.5. Results of PBT and vPvB assessment

Not Applicable

12.6. Other adverse effects

No known significant effects or critical hazards.

13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1. Waste treatment methods

Product

Methods of Disposal

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous Waste

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.



Packaging

Methods of Disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|--|--|---|----------------------------------|
| 14.1. UN number | Not regulated. | Not regulated. | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable | IMDG: Not Applicable Sub Class: Not Applicable | Air class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |
| 14.5. Environmental hazards | | | |
| IMDG | Marine Pollutant: No | | |
| 14.6. Special precautions for user | Not Available | | |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not Available | | |

15. Regulatory information

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

EU Legislation

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

Annex XIV - List of substances subject to authorization Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not Applicable



| | |
|--|--|
| Canada inventory | All components are listed or exempted. |
| United States inventory (TSCA 8b) | All components are listed or exempted. |
| Europe inventory | All components are listed or exempted. |
| International lists | |
| Australia inventory (AICS) | All components are listed or exempted. |
| China inventory (IECSC) | All components are listed or exempted. |
| Korea inventory | All components are listed or exempted. |
| Philippines inventory (PICCS) | All components are listed or exempted. |

16. Other information

Abbreviations and acronyms

Key literature references and sources for data

ATE = Acute Toxicity Estimate

**CLP = Classification, Labelling and Packaging Regulation
[Regulation (EC) No. 1272/2008]**

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

**Classification according to Regulation (EC) No. 1272/2008
[CLP/GHS] Not classified.**

**Procedure used to derive the classification according to
Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified.

Full text of abbreviated H statements Not Applicable

Full text of classifications [CLP/GHS] Not Applicable

Full text of abbreviated R phrases Not Applicable

Full text of classifications Not Applicable

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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