

Safety data sheet  
According to 1907/2006/EG, Article 31

Substance: Oil for Vacuum pump

Status: 20.09.2016 Rev.-Nr. 04

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

**Trade name :**

- DV-04 / Oil for Vacuum pump standard 1/4 l / 9881842
- DV-05 / Oil for Vacuum pump standard 1/2 l / 9881844
- DV-06 / Oil for Vacuum pump standard 1Lt. / 9881843
- DV-06-Y / Oil for Vacuum pump Royal-2, RD-4/6/8, viscosity 10 mm<sup>2</sup>/sec at 40°C (1 l) /4492871
- DV-08 / Oil for Vacuum pump 5 l can / 9881841

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

No further relevant information available.

**Application of the substance / the preparation:** For industrial use only  
Lubricant

**1.3 Details of the supplier of the safety data sheet**

**REFCO Manufacturing Ltd.** Industriestrasse 11 | 6285 Hitzkirch Switzerland  
Tel. +41 41 919 72 82 | Fax +41 41 919 72 83 |  
E-Mail: [info@refco.ch](mailto:info@refco.ch)

**1.4 Emergency telephone number**

Toxicological Info-Centre CH-Zurich  
Telephone number in urgent matters: 145 oder +41 44 251 51 51  
Not urgent matters: +41 44 251 66 66

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture:**

**Classification according to Regulation (EC) No 1272/2008**

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

**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**



**GHS08  
Danger**

**Signal word**

**Hazard-determining components of labelling:**

Paraffin based neutr. lubricating oil, hydrotreated, C<sub>15</sub>-C<sub>30</sub>  
Petroleum distillates (Mineral oil), heavy hydrocracked

**Hazard statements:**

H304 May be fatal if swallowed and enters airways.

**Precautionary statements**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P331 Do NOT induce vomiting.  
P405 Store locked up.  
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.



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| <b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>   |   |   |
| <b>3.2 Mixtures</b>  |   |   |
| <b>Descriptor:</b>   |   | Paraffin-based mineral oil, selective raffinate with active substances. |
| <b>Declarable, or hazardous components (CAS-no.)</b>   |   |   |
| CAS: 72623-86-0<br>EINECS: 276-737-9<br>Reg.No.: 01-2119474878-16-0000   | Paraffin based neutr. lubricating oil, hydrotreated,<br>C <sub>15</sub> -C <sub>30</sub><br>Asp. Tox. 1, H304 | >60 – <80%  |
| CAS: 64741-76-0<br>EINECS: 265-077-7<br>Reg.No.: 01-2119486951-26-0000   | Petroleum distillates (Mineral oil), heavy<br>hydrocracked<br>Asp. Tox. 1, H304                               | >10 – <20%  |
| <b>Additional Information:</b><br>For the wording of the listed risk phrases refer to section 16.<br>Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential. |   |   |
| <b>4. FIRST AID MEASURES</b>   |   |   |
| <b>4.1 Description of first aid measures</b>   |   |   |
| <b>General indication:</b>   |   | No special measures required.   |
| <b>After inhalation:</b>   |   | Supply fresh air; consult doctor in case of complaints.                 |
| <b>After skin contact:</b>   |   | Generally the product does not irritate the skin.                       |
| <b>After eye contact:</b>  |   | Rinse opened eye for several minutes under running water.               |
| <b>After swallowing:</b>   |   | If symptoms persist consult doctor.                                     |
| <b>4.2 Most important symptoms and effects, both acute and delayed</b><br>No further relevant information available.   |   |   |
| <b>4.3 Indication of any immediate medical attention and special treatment needed</b><br>No further relevant information available.  |   |   |
| <b>5. FIREFIGHTING MEASURES</b>  |   |   |
| <b>5.1 Extinguishing media</b>   |   |   |
| <b>Suitable extinguishing agents:</b> CO <sub>2</sub> , powder or water spray. Fight larger fires with water spray.  |   |   |
| <b>For safety reasons unsuitable extinguishing agents:</b> Water with full jet   |   |   |
| <b>5.2 Special hazards arising from the substance or mixture</b><br>No further relevant information available.   |   |   |
| <b>5.3 Advice for fire-fighters</b>  |   |   |
| <b>Protective equipment:</b>   |   | No special measures required.   |
| <b>6. ACCIDENTAL RELEASE MEASURES</b>  |   |   |
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b><br>Not required.  |   |   |
| <b>6.2 Environmental precautions:</b><br>Do not allow to enter sewers/ surface or ground water.  |   |   |
| <b>6.3 Methods and material for containment and cleaning up:</b><br>Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).                                     |   |   |

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| <b>6. ACCIDENTAL RELEASE MEASURES (Cont.)</b>   |  |
| <b>6.4 Reference to other sections</b><br>No dangerous substances are released.<br>See Section 7 for information on safe handling.<br>See Section 8 for information on personal protection equipment.<br>See Section 13 for disposal information  |  |
| <b>7. HANDLING AND STORAGE</b>  |  |
| <b>7.1 Precautions for safe handling</b><br>The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).<br>Observe the general safety regulations when handling chemicals.<br><br><b>Information about fire - and explosion protection:</b> No special measures required.   |  |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b><br><b>Storage:</b><br><b>Requirements to be met by storerooms and receptacles:</b> Store only in the original receptacle.<br><b>Information about storage in one common storage facility:</b> Store away from oxidizing agents.<br><b>Further information about storage conditions:</b> Protect from heat and direct sunlight.<br>Storage temperature between -15 °C and +40 °C.<br>Duration of storage: In original container, at least 3 years. |  |
| <b>7.3 Specific end use(s)</b><br>No further relevant information available.  |  |
| <b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</b>   |  |
| <b>Additional information about design of technical facilities:</b> No further data; see item 7.  |  |
| <b>8.1 Control parameters</b><br><b>Ingredients with limit values at the workplace:</b><br>TLV value (oil mist) CH: 5 mg/m <sup>3</sup><br><br><b>Additional information:</b> The lists valid during the making were used as basis.   |  |
| <b>8.2 Exposure controls</b><br><b>Personal protective equipment:</b>   |  |
| <b>General protective and hygienic measures:</b>  | Keep away from foodstuffs, beverages and feed.<br>Wash hands before breaks and at the end of work.   |
| <b>Respiratory protection:</b>  |  Not required.  |
| <b>Material of gloves:</b>  |  The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the resultant standard EN 374. 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. The break through, among others, depending on material density and the type of glove and therefore must be determined in each individual case.<br>Gloves must be inspected prior to use. Replace when worn!<br>Impervious gloves: nitrile rubber, minimum thickness of 0.3 mm. |

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| <b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)</b>  |  |
| <b>8.2 Exposure controls (Cont.)</b>   |  |
| <b>Penetration time of glove material:</b>   | The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.                             |
| <b>Eye protection:</b>   |  Eye protector with side protection (framed eyeglasses) EN 166. |
| <b>Body protection:</b>  |  Protective work clothing                                       |
| <b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>   |  |
| <b>9.1 Information on basic physical and chemical properties</b>   |  |
| Form:  | Liquid   |
| Colour:  | Yellow   |
| Odour:   | Mineral-oil like   |
| Melting point/Melting range:   | Not applicable   |
| Boiling point/Boiling range:   | > 300°C (DIN 51751)  |
| Pourpoint  | - 45°C. (ISO 3016)   |
| Flash point:   | > 140°C (ISO 2592)   |
| Ignition temperature:  | > 500°C (DIN 51794)  |
| Self-igniting:   | Product is not selfigniting  |
| Danger of explosion:   | Product does not present an explosion hazard.  |
| Explosion limits (@1013 mbar)  | General values for mineral oil, therefore not product specific   |
| Density at 20°C:   | 0,87 g/cm <sup>3</sup> (DIN 51757)   |
| Solubility in/ Miscibility with water:   | Insoluble  |
| Viscosity kinematic:   | 10 mm <sup>2</sup> /s @40°C (ISO 3104)   |
| <b>9.2 other information:</b><br>Safety relevant data, which has to be considered as product specifications. |  |
| <b>10. STABILITY AND REACTIVITY</b>  |  |
| <b>10.1 Reactivity</b><br>None known if used as directed.  |  |
| <b>10.2 Chemical stability</b><br>Stable under recommended storage conditions.                               |  |
| <b>10.3 Possibility of hazardous reactions</b><br>Reacts with strong oxidizing agents.                       |  |
| <b>10.4 Conditions to avoid</b><br>No further relevant information available.                                |  |
| <b>10.5 Incompatible materials</b><br>No further relevant information available.                             |  |
| <b>10.6 Hazardous decomposition products</b><br>Carbon monoxide and carbon dioxide                           |  |



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**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values relevant for classification:**

- > 2000 - < 5000 mg / kg (oral, rat)
- > 5'100 mg/m<sup>3</sup> 4h (inhalation, rat)

**Primary irritant effect:**

**Skin corrosion/irritation**

**Serious eye damage/irritation**

- **Respiratory or skin sensitisation**
- **Germ cell mutagenicity**
- **Carcinogenicity**
- **Reproductive toxicity**
- **STOT-single exposure**
- **STOT-repeated exposure**
- **Aspiration hazard**

Contact may degrease the skin and cause skin inflammation (dermatitis).

Based on available data, the classification criteria are not met.

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May be fatal if swallowed and enters airways.

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Aquatic Toxicity:** No further relevant information available.

**12.2 Persistence and degradability**

No further relevant information available.

**12.3 Bioaccumulative potential**

No further relevant information available.

**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 product 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.

**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.

**European waste catalogue**

13 02 05\* mineral-based non-chlorinated engine, gear and lubricating oils

**Uncleaned packaging:**

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



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| <b>14. TRANSPORT INFORMATION</b>  |  |
| <b>14.1 UN- Number:</b><br>ADR, ADN, IMDG, IATA   | Void   |
| <b>14.2 UN proper shipping name</b><br>ADR, ADN, IMDG, IATA   | Void   |
| <b>14.3 Transport hazard class(es)</b><br>ADR, ADN, IMDG, IATA Class  | Void   |
| <b>14.4 Packing group</b><br>ADR, IMDG, IATA  | Void   |
| <b>14.5 Environmental hazards</b><br>Marine pollutant   | No   |
| <b>14.6 Special precautions for user</b>  | Not applicable.                                      |
| <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>   | Not applicable.                                      |
| <b>14.8 Transport/Additional information</b>  | Not dangerous according to the above specifications. |
| <b>UN "Model Regulation":</b>   | Void   |
| <b>15. REGULATORY INFORMATION</b>   |  |
| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b><br>Directive 2012/18/EU<br>Named dangerous substances - ANNEX I None of the ingredients is listed.<br><br>National regulations: No further regulations.<br><br>Other regulations, limitations and prohibitive regulations<br>Substances of very high concern (SVHC) according to REACH, Article 57<br>This preparation does not contain any SVHC ("Substances of Very High Concern")   |  |
| <b>15.2 Chemical safety assessment</b><br>A Chemical Safety Assessment has not been carried out.  |  |
| <b>16. OTHER INFORMATION</b>  |  |
| 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.<br><br>Regulations / approvals /listings:<br>Information on REACH registration numbers in section 3:<br><br>In case of lack of REACH registration numbers on mentioned hazardous substances at the end of 2010, then these numbers will be known and indicated only in section 3 within its tonnage band for registration, after the end of 2013, respectively by the end of 2018, or are exempt from the REACH regulation (e.g. polymers).<br><br>RoHS:<br>The product is complaint with European Directives 2002/95/EC, WEEE 2002/96/EC, 2003/11/EC, 2005/53/EC and RoHS.<br>The following substances ARE NOT contained:<br>Pentabromodiphenylether, Octabromodiphenylether, polybrominated diphenylether (PDBE) and/or polybrominated biphenyls (PBB), lead or it's compounds, cadmium or it's compounds, mercury or it's compounds, chromium Cr <sup>6+</sup> - compounds. |  |



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### 16. OTHER INFORMATION (Cont.)

**IP346:**

The contained refined mineral oils are exempt of labelling.

The content of polycyclic aromatic hydrocarbons (PCA) according to IP346 is < 3% (DMSO-extract).

**The product does not contain:**

PCB, PCT, TCDD (tetrachlorodibenzodioxin) and other dioxin-like substances.

**Department issuing MSDS:** quality management

**Contact:** Mr. Weber

**Editor's notice:**

The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications have not meaning of guarantees on properties.

**Abbreviations and acronyms:**

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

RoHS: Restriction of Hazardous Substances

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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)

VOC: Volatile Organic Compounds (USA, EU)

ISO: International Organisation for Standardisation

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

DMSO: Dimethyl sulphoxide extract

IP 346: Institute of Petroleum and related for testing methods for petroleum and fuel products.

CLP: Classification, Labeling and Packaging (European GHS)

PBT: Persistent, Bioaccumulative and Toxic chemicals

vPvB: very Persistent and very Bioaccumulative chemicals

Asp. Tox. 1: Aspiration hazard, Hazard Category 1\*

**\*Data compared to the previous version altered.**

The asterisk (\*) on the left side indicate the respective changes from the previous version.

End of the document