



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

Substance: Oil for Vacuum pump

Status: 28.01.2015 Rev.-Nr. 02

<p>* 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING</p> <p>1.1 Product identifier</p> <p>Trade name :</p> <ul style="list-style-type: none">- 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 mm²/sec at 40°C (1 l) /4492871- DV-08 / Oil for Vacuum pump 5 l can / 9881841 <p>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</p> <p>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</p> <p>1.4 Emergency telephone number Schweizerisches Toxikologisches Informationszentrum Zürich Telephone number in urgent matters: 145 oder +41 44 251 51 51 Not urgent matters: +41 44 251 66 66</p>
<p>* 2. HAZARDS IDENTIFICATION</p> <p>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.</p> <p>Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void</p> <p>Information concerning particular hazards for human and environment: The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.</p> <p>Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data.</p> <p>2.2 Label elements Labelling according to EU guidelines: Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).</p> <p>2.3 Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.</p>
<p>* 3. COMPOSITION/INFORMATION ON INGREDIENTS</p> <p>3.2 Mixtures Descriptor: Paraffin-based mineral oil, selective raffinate with active substances.</p>



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* 3. COMPOSITION/INFORMATION ON INGREDIENTS (Cont.)		
3.2 Mixures (Cont.)		
Declarable, or hazardous components (CAS-no.)		
EINECS: 232-455-8 Reg.No.: 01-2119487078-27-0000	White paraffin oil (petroleum) Xn R65 Asp. Tox. 1, H304	>80 - <99%
EINECS: 276-737-9 Reg.No.: 01-2119474878-16-0000	Paraffin based neutral lubricating oil, hydrotreated, C ₁₅ - C ₃₀ Asp. Tox. 1, H304	>10 - <20%
Additional Information: For the wording of the listed risk phrases refer to section 16. Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.		
4. FIRST AID MEASURES		
4.1 Description of first aid measures		
General indication:	No special measures required.	
After inhalation:	Supply fresh air; consult doctor in case of complaints.	
After skin contact:	Generally the product does not irritate the skin.	
After eye contact:	Rinse opened eye for several minutes under running water.	
After swallowing:	If symptoms persist consult doctor.	
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		
No further relevant information available.		
5. FIREFIGHTING MEASURES		
5.1 Extinguishing media		
Suitable extinguishing agents: CO ₂ , powder or water spray. Fight larger fires with water spray.		
For safety reasons unsuitable extinguishing agents: Water with full jet		
5.2 Advice for fire-fighters		
Protective equipment:	No special measures required.	
6. ACCIDENTAL RELEASE MEASURES		
6.1 Personal precautions, protective equipment and emergency procedures		
Not required.		
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).		
6.4 Reference to other sections		
No dangerous substances are released.		
See Section 7 for information on safe handling.		
See Section 8 for information on personal protection equipment.		
See Section 13 for disposal information		

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7. HANDLING AND STORAGE

7.1 Precautions for safe handling

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Observe the general safety regulations when handling chemicals.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

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 oxidizing agents.

Further information about storage conditions:

Protect from heat and direct sunlight.

Storage temperature between -15 °C and +40 °C.

Duration of storage: In original container, at least 3 years.

7.3 Specific end use(s)

No further relevant information available.

* 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 at the workplace:

TLV value (oil mist) CH: 5 mg/m³

White paraffin oil (petroleum) (50 - 100%)

OEL Long-term value: 5 mg/m³

Oil mist

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:



Not required.

Material of gloves:



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.

Gloves must be inspected prior to use. Replace when worn!

Impervious gloves: nitrile rubber, minimum thickness of 0.3 mm.

Penetration time of glove material:

The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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*** 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)**

8.2 Exposure controls (Cont.)

Eye protection:



Eye protector with side protection (framed eyeglasses) EN 166.

Body protection:



Protective work clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

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:	> 350°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 ³ (DIN 51757)
Solubility in/ Miscibility with water:	Insoluble
Viscosity kinematic:	10 mm ² /s @40°C (ISO 3104)

9.2 other information:

Safety relevant data, which has to be considered as product specifications.

10. STABILITY AND REACTIVITY

10.1 Reactivity

None known if used as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts with strong oxidizing 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 and carbon dioxide

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*	<p>11. TOXICOLOGICAL INFORMATION</p> <p>11.1 Information on toxicological effects Acute toxicity: LD/LC50 values relevant for classification: > 2000 - < 5000 mg / kg (oral, rat) > 5'100 mg/m³ 4h (inhalation, rat)</p> <p>ATE (Acute Toxicity Estimates) Dermal LD50 2477 mg/kg Inhalative LC50/4 h 3096 mg/L</p> <p>Primary irritant effect: On the skin: No irritant effect. On the eye: No irritating effect. Sensitization: No sensitizing effects known.</p> <p>Additional toxicological information: The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.</p>
*	<p>12. ECOLOGICAL INFORMATION</p> <p>12.1 Toxicity Aquatic Toxicity: No further relevant information available.</p> <p>12.2 Persistence and degradability No further relevant information available.</p> <p>12.3 Bioaccumulative potential No further relevant information available.</p> <p>12.4 Mobility in soil No further relevant information available.</p> <p>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.</p> <p>12.5 Results of PBT and vPvB assessment PBT: not applicable. vPvB: not applicable.</p> <p>12.6 Other adverse effects No further relevant information available.</p>
	<p>13. DISPOSAL CONSIDERATIONS</p> <p>13.1 Waste treatment methods Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.</p> <p>European waste catalogue</p>



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13. DISPOSAL CONSIDERATIONS (Cont.)	
13.1 Waste treatment methods (Cont.) 13 02 05* mineral-based non-chlorinated engine, gear and lubricating oils	
Uncleaned packaging: Recommendation: Disposal must be made according to official regulations.	
* 14. TRANSPORT INFORMATION	
14.1 UN- Number: ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Class	Void
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards Marine pollutant	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
14.8 Transport/Additional information UN "Model Regulation":	Not dangerous according to the above specifications.
15. REGULATORY INFORMATION	
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations: No further regulations.	
Other regulations, limitations and prohibitive regulations Substances of very high concern (SVHC) according to REACH, Article 57 This preparation does not contain any SVHC ("Substances of Very High Concern")	
15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out.	
* 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.	
Regulations / approvals /listings: Information on REACH registration numbers in section 3:	
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).	



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16. OTHER INFORMATION (Cont.)

RoHS:

The product is compliant with European Directives 2002/95/EC, WEEE 2002/96/EC, 2003/11/EC, 2005/53/EC and RoHS. The following substances ARE NOT contained:
Pentabromodiphenylether, Octabromodiphenylether, polybrominated diphenylether (PDBE) and/or polybrominated biphenyls (PBB), lead or its compounds, cadmium or its compounds, mercury or its compounds, chromium Cr⁶⁺ - compounds.

IP346:

The contained refined mineral oils are exempt of labelling.
The content of polycyclic aromatic hydrocarbons (PCA) according to IP346 is < 3% (DMSO-extract).

Relevant phrases:

H304 May be fatal if swallowed and enters airways.

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.

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