

## Safety data sheet VM100

### 1 . Identification of the substance or the preparation of the firm/company

<b>Date</b>	04/08/2010
<b>Trade name</b>	VM100
<b>Application</b>	Vacuum pump oil. Consult Busch NV for specific instructions concerning applications.
<b>Product code</b>	0831N00923
<b>Supplier</b>	Busch NV Kruinstraat 7 9160 Lokeren België
<b>Telephone</b>	09 – 348 47 22
<b>Emergency phone number</b>	09 – 348 47 22

### 2 . Hazards identification

EC classification	Not classified as dangerous under EC criteria.
Health hazards	Not expected to be a health hazard when used under normal conditions. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities.
Signs and symptoms	Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.
Safety hazards	Not classified as flammable but will burn.
Environmental hazards	Not classified as dangerous for the environment.

### 3 . Composition / Information on ingredients

Preparation description	Highly refined mineral oil.
Additional information	The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

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### 4 . First aid measures

General information	Not expected to be a health hazard when used under normal conditions.
Inhalation	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
Skin contact	Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
Eye contact	Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
Ingestion	In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Advice to Physician	Treat symptomatically.

### 5 . Fire-fighting measures

Clear fire area of all non-emergency personnel.	
Specific hazards	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
Suitable extinguishing media	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water in a jet.
Protective equipment for fire-fighters	Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

### 6 . Accidental release measures

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see chapter 8 of this Material Safety Data Sheet. See chapter 13 for information on disposal. Observe all relevant local and international regulations.	
Protective measures	Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Clean up methods	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice	Local authorities should be advised if significant spillages cannot be contained.

# Vacuümpompen en Systemen

## Pompes à vide et Systèmes



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### 7 . Handling and storage

General precautions	Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Handling	Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Storage	Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closable containers. Storage Temperature: 0 - 50°C / 32 - 122°F
Recommended materials	For containers or container linings, use mild steel or high density polyethylene.
Unsuitable materials	PVC.
Additional information	Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

### 8 . Exposure controls / Personal protection

#### Occupational Exposure Limits

Material	Source	Type	ppm	mg/m <sup>3</sup>	Notation
Oil mist, mineral	MAC (NL)	MAC TGG (8 hours) [Mist.]		5 mg/m <sup>3</sup>	

Exposure controls	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.
Appropriate measures include	Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
Personal protective equipment	Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
Respiratory protection	No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours (boiling point >65 °C (149 °F)) meeting EN141.

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Hand protection	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
Eye protection	Wear safety glasses or full face shield if splashes are likely to occur. Approved to EU Standard EN166.
Protective clothing	Skin protection not ordinarily required beyond standard issue work clothes.
Monitoring methods	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Environmental exposure controls	Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

## 9 . Physical and chemical properties

Appearance	Amber. Liquid at room temperature.
Odour	Slight hydrocarbon.
pH	Not applicable.
Initial boiling point and boiling range	> 280 °C / 536 °F estimated value(s)
Pour point	Typical -9 °C / 16 °F
Flash point	Typical 225 °C / 437 °F (COC)
Upper / Lower Flammability or Explosion limits	Typical 1 - 10 %(V) (based on mineral oil)
Auto-ignition temperature	> 320 °C / 608 °F
Vapour pressure	< 0,5 Pa at 20 °C / 68 °F (estimated value(s))
Density	Typical 870 kg/m <sup>3</sup> at 15 °C / 59 °F
Water solubility	Negligible.
n-octanol/water partition coefficient (log Pow)	> 6 (based on information on similar products)
Kinematic viscosity	Typical 100 mm <sup>2</sup> /s at 40 °C / 104 °F
Vapour density (air=1)	> 1 (estimated value(s))
Evaporation rate (nBuAc=1)	Data not available

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### 10 . Stability and reactivity

Stability	Stable.
Conditions to avoid	Extremes of temperature and direct sunlight.
Materials to avoid	Strong oxidising agents.
Hazardous decomposition products	Hazardous decomposition products are not expected to form during normal storage.

### 11 . Toxicological information

Basis for assessment	Information given is based on data on the components and the toxicology of similar products.
Acute oral toxicity	Expected to be of low toxicity: LD50 > 5000 mg/kg
Acute dermal toxicity	Expected to be of low toxicity: LD50 > 5000 mg/kg
Acute inhalation toxicity	Not considered to be an inhalation hazard under normal conditions of use.
Skin irritation	Expected to be slightly irritating.
Eye irritation	Expected to be slightly irritating.
Respiratory irritation	Inhalation of vapours or mists may cause irritation.
Sensitisation	Not expected to be a skin sensitiser.
Repeated dose toxicity	Not expected to be a hazard.
Mutagenicity	Not considered a mutagenic hazard.
Carcinogenicity	Product contains mineral oils of types shown to be noncarcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
Reproductive and developmental toxicity	Not expected to be a hazard.
Additional information	Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible.

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### 12 . Ecological information

Ecotoxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the ecotoxicology of similar products.

Acute toxicity	Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
Mobility	Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
Persistence / degradability	Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
Bioaccumulation	Contains components with the potential to bioaccumulate.
Other adverse effects	Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

### 13 . Disposal considerations

Material disposal	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
Container disposal	Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
Local legislation	Disposal should be in accordance with applicable regional, national, and local laws and regulations.
EU waste disposal code (EWC)	13 02 05 mineral-based nonchlorinated engine, gear and lubricating oils. Classification of waste is always the responsibility of the end user.

### 14 . Transport information

ADR	This material is not classified as dangerous under ADR regulations.
RID	This material is not classified as dangerous under RID regulations.
ADNR	This material is not classified as dangerous under RID regulations.
IMDG	This material is not classified as dangerous under IMDG regulations.
IATA (country variations may apply)	This material is not classified as dangerous under IATA regulations.

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### 15 . Regulatory information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

EC classification	Not classified as dangerous under EC criteria.
EC symbols	No Hazard Symbol required
EC risk phrases	Not classified.
EC safety phrases	Not classified.
EINECS	All components listed or polymer exempt.
TSCA	All components listed.

### 16 . Other information

R phrase(s)	Not classified.
MSDS version number	1.1
MSDS effective date	04.08.2010
MSDS regulation	Regulation 1907/2006/EC
MSDS distribution	The information in this document should be made available to all who may handle the product.
Disclaimer	This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.