

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/18/2015

Version: 3. 0

Reviewed on 03/18/2015

1: Identification

· **1.1 Product identifier**

· Trade name: **P3**

· Project number: PK_0001_M

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

· Uses advised against: -

· Application of the substance / the mixture Operating fluid / lubricant for vacuum pumps

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

· **Manufacturer/Supplier:**

PFEIFFER VACUUM GmbH

Berliner Strasse 43

D-35614 Asslar

Telefon +49 6441 / 802-0

Telefax +49 6441 / 802-1202

www.pfeiffer-vacuum.com

Email: info@pfeiffer-vacuum.de

· **Supplier:**

Pfeifer Vacuum Inc.

24 Trafalgar Square

Nashua, NH 03063

· **E-mail competent person:** sds@kft.de

· **Information department:** See supplier/manufacturer

· **1.4 Emergency telephone number:** 603-578-6500

2: Hazard(s) identification

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

· **Classification** The product is not classified according to the CLP regulation.

· **Information concerning particular hazards for human and environment:**

A health risk is not expected. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculate. Used oil may contain harmful impurities.

· **2.2 Label elements**

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 1
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 1
Reactivity = 0

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

- **Description:**
Highly refined mineral oils and additives. The highly refined mineral oil contains < 3% (W/W) DMSO extract, according to IP346.
- **Dangerous components:** Void
- **Additional information:**
IP 346: Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method
- **TSCA**
all perfume oils are listed in TSCA by name or as extracts and their physically modified derivatives

4: First-aid measures

· **4.1 Description of first aid measures**

- **General information:** Personal protection for the First Aider.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Remove contaminated clothes and shoes.
Wash with water and soap.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
If symptoms persist, consult a doctor.
- **After swallowing:** After swallowing large amounts, call a doctor

· **4.2 Most important symptoms and effects, both acute and delayed**

- Signs and symptoms of acne/folliculate: Blackheads and pimples on exposed skin.
- After swallowing:
Nausea
Vomiting
Diarrhea

· **4.3 Indication of any immediate medical attention and special treatment needed**

- Symptomatic treatment

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5: Fire-fighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

In small quantities: sand

Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Complex mixture of solid and fluid particles and gases.

Carbon monoxide (CO)

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Heating leads to increased pressure and danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid any product contact

Avoid contact with eyes and skin.

Do not breathe aerosol or vapors.

Particular danger of slipping on leaked/spilled product.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with non-combustible material like sand, soil, diatomite.

Send for recovery or disposal in suitable receptacles.

Dam up larger quantities and pump into containers.

· **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.

7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with eyes and skin.

Do not breathe aerosol or vapors.

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Avoid inhalation of vapours formed by heated product.

· **Information about protection against explosions and fires:**

- Use only in explosion protected area.
- Observe the general rules of industrial fire protection.
- Protect against electrostatic charges.
- Assure that devices and containers are grounded.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

- Store receptacles tightly closed at a cool and dry place with sufficient ventilation
- Suitable material for containers and container coatings: soft stell or high-densitiy polyethylene (HDPE).
- Unsuitable material for receptacle: PVC

· **Information about storage in one common storage facility:**

- Store away from foodstuffs.
- Store away from feed.

· **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

· **Storage class:** 10 Combustible liquids

· **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

· **Additional information about design of technical systems:**

- Install appropriate mechanical ventilation/exhaustion
- No further data; see section 7.

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- The usual precautionary measures for handling chemicals should be followed.
- Keep away from foodstuffs, beverages and feed.
- Before breaks and at the end of work, thoroughly wash hands with water and soap, then rub-in skin protecting cream.
- Immediately remove soiled, soaked clothing and use again only after washing.

· **Breathing equipment:**

- A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.
- Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
- Under normal conditions of use not required.
- In case of unintentional release of substance, exceeding the occupational exposure limit value: Suitable respiratory protective device recommended.

· **Protection of hands:**

- Chemical resistant gloves (EN 374)
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

- Nitrile rubber, NBR

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PVC

Neoprene

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.
> 480 °C

· **Eye protection:**

as described by OSHA's eye and face protection regulations in 29 CFR 1910.133

Safety glasses

Full-face mask

EN 166

· **Body protection:**

Protective work clothing

Safety footwear

9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Yellowish
Odor:	Light
	Like hydrocarbons
Odour threshold:	Not determined.

· **pH-value:** Not applicable

· **Change in condition**

Melting point/Melting range:	< -15 °C (< 5 °F)
Boiling point/Boiling range:	> 280 °C (> 536 °F) (estimated)
Pouring point	-9 °C (16 °F)

· **Flash point:** 260 °C (500 °F) (open cup)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** Not determined

· **Decomposition temperature:** Not determined

· **Auto igniting:** Autoignition temperature:
430 °C

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	1 Vol %
Upper:	10 Vol % (based on mineral oil)

· **Oxidizing properties** not determined

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- **Vapor pressure:** Not determined.
- **Density at 15 °C (59 °F):** 0.866 g/cm³ (7.227 lbs/gal)
- **Relative density** Not determined.
- **Vapour density at 20 °C (68 °F)** > 1 (estimated value(s))
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** > 6 log POW (similar products)
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic at 40 °C (104 °F):** 95 mm²/s
- **Solvent content:**
- **VOC content:** 3.0 %
- **9.2 Other information** No further relevant information available.

10: Stability and reactivity

- **Possibility of hazardous reactions:** No further relevant information available.
- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- **10.4 Conditions to avoid** Heat
- **10.5 Incompatible materials:** Strong oxidants
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if instructions for storage and handling are followed

11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
 - Oral LD₅₀ > 5000 mg/kg (rat)
estimated
 - Dermal LD₅₀ > 5000 mg/kg (rabbit)
estimated
- **Primary irritant effect:**
- **on the skin:** Light irritation of the skin is possible
- **on the eye:** Light irritation possible.

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· **On respiratory tract:** Irritation of respiratory tract possible

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

Highly refined mineral oils are not classified as a carcinogen by the International Research on Cancer (IARC).

Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may lead to risks to health and the environment on disposal. ALL used oil should be handled with care, contact with the skin should be avoided. Classifications of authorities under various regulatory frameworks may exist.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

Presently there are no ecotoxicological values available.

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.

· **12.2 Persistence and degradability**

The product is not easily, but potentially biodegradable.

Some of the compounds could be be persistent in the environment.

· **12.3 Bioaccumulative potential** $\log P (o/w) > 4$ - Considerable bioaccumulation is to be expected.

· **12.4 Mobility in soil**

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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· **12.6 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

· **13.1 Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The used respectively the unused product should be recycled if possible. Disposal according to instructions of local authorities

· **Uncleaned packagings:**

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

14: Transport information

· **14.1 UN-Number**

· DOT, ADR, ADN, IMDG, IATA Void

· **14.2 UN proper shipping name**

· DOT, ADR, ADN, IMDG, IATA Void

· **14.3 Transport hazard class(es)**

· DOT, ADR, ADN, IMDG, IATA
· Class Void

· **14.4 Packing group**

· DOT, 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.
For Bulk transport: follow the rules of MARPOL Annex 1

· **Transport/Additional information:**

Not dangerous according to the above regulations.

· **UN "Model Regulation":**

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15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara:**
- **Section 355 (extremely hazardous substances):** None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):** None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):** All ingredients are listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)**
void
- **IARC (International Agency for Research on Cancer)** void
- **TLV (Threshold Limit Value established by ACGIH)**
void
- **MAK (German Maximum Workplace Concentration)**
void
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
void
- **OSHA-Ca (Occupational Safety & Health Administration)** void
- **Regulation or reporting requirements USA**
- **Prop. 65 - Cancer**
not listed

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.

- **Replaces the version dated:** Version(s) 1-2 is/are not available for this language.
- **Department issuing SDS:**
KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Tel.: +49 6155 86829-0 Fax: +49 6155 86829-25
- **Contact:** Dr. Faiza Khan
- **Date of preparation / last revision** 03/18/2015 / 2.99
- **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)
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
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA)
HMS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

· **Sources** SDS of the supplier

USA