Section 1: Identification of the substance or mixture and the company

1.1. Product Identifier

53-000250  PIKAL professional polishing paste

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

Polishing and cleaning metal, hard materials, enamels materials to a mirror finish
Abrasive material

1.3. Details of the supplier of the Safety Data Sheet

Vof Micro to Nano
Wateringweg 79
2031EK Haarlem
Netherlands
Tel: +31(0)85-2013155
E: info@microtonano.com

1.4 Emergency telephone number

112 (NLD) or your national emergency telephone number for chemical spills, leaks, fires, exposures or accidents

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Physical:
- Low flammability

Health:
- Acute Toxicity 4
- Aspiration hazard 1
- Skin irritant category 2
- Eye irritant category 2
- Suspected of causing cancer

Environment:
- None

Other hazards:
- None

Classification according to Regulation EC Nr. 1272/2008

Xi: Irritant
Xn: Harmful
Xi: Sensitising
Product name: Pikal professional polishing paste
Document Nr.: SDS00153000250-01
Date: October 20th 2016
Version: 1.0

Health: R40: Limited evidence of a carcinogenic effect
R37: Irritating to respiratory system
R38: Irritating to skin
R43: May cause sensitisation by skin contact
R36: Irritating to eyes

Physical: R10: Flammable

Environment: R52: Harmful to aquatic systems

Other hazards: Not classified

2.2 Labeling elements

Labelling accordance to Regulation EC Nr. 1272/2008

Hazard pictogramm(s):

Signal word: Warning

Hazard statement(s):
- H302: Harmful if swallowed
- H315: Causes mild skin irritation
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation
- H351: Suspected of causing cancer

Precautionary statement(s)

Prevention:
- P101: If medical advice is needed, have product container or label at hand
- P102: Keep out of reach of children
- P103: Read label before use
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray
- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product
- P273: Avoid release to the environment
- P281: Use personal protective equipment as required

Response:
- P308+P313: If exposed or concerned: Get medical attention
- P304+P315: If inhaled: Get immediate medical advice/attention
- P302+P352: If on skin: Wash with plenty of water and soap.
- P305+P351+P338: If in eyes; rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P391: Collect spillage

Storage:
- P405: Store locked up

Disposal:
- P501: Dispose of contents/container in accordance to local/regional/ international regulations

Supplemental hazard info: none
Section 3: Composition / information on components

3.1. Substances

Not applicable

3.2 Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Nr.</th>
<th>EC Nr.</th>
<th>WT%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>8042-47-5</td>
<td>232-455-8</td>
<td>10</td>
</tr>
<tr>
<td>Kerosene</td>
<td>8008-20-6</td>
<td>232-366-4</td>
<td>20</td>
</tr>
<tr>
<td>Ammonia solution</td>
<td>1336-21-6</td>
<td>215-647-6</td>
<td>1-5</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>107-21-1</td>
<td>203-473-3</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Aluminium Oxide Al2O3</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>20</td>
</tr>
<tr>
<td>Silica sand SiO2</td>
<td>14080-60-7</td>
<td>262-373-8</td>
<td>20</td>
</tr>
<tr>
<td>Fatty acids, C16-18 and C18- unsaturated</td>
<td>67701-08-0</td>
<td>266-932-7</td>
<td>1-10</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231–791-2</td>
<td>1-10</td>
</tr>
</tbody>
</table>

Section 4: First aid measures

4.1. Description of first aid measures

Contact with eyes: Rinse cautiously with water for several minutes. If possible, remove contact lenses. Continue rinsing. Seek medical attention if irritation persists.

Contact with skin: Wash with water and soap. Seek medical attention if irritation persists.

Inhalation: Fresh air, keep warm and at rest. Seek medical attention if irritation persists.

Ingestion: If swallowed, do not induce vomiting. Seek immediate medical advice.

If vomiting appears imminent or occurs hold patient’s head down, lower than their hips to help avoid possible aspiration of vomitus.
Never give liquid to a person with reduced awareness
Give water to rinse out mouth, then provide water slowly as much as casually can comfortably drink
Avoid giving milk, oils or alcohol

4.2. Important symptoms and effects, either immediate or delayed

Inhalation: May cause damage to the lungs; chemical pneumonitis
Symptoms: cough, sore throat, asthma

Ingestion: May cause digestive tract irritation
Symptoms: sore throat, abdominal pain, nausea, vomiting

Skin contact: Mildly irritating to skin
Symptoms: redness and pain

Eye contact: Irritating to eyes
Symptoms: redness and pain, impaired vision

4.3. Indication of any immediate medical attention and special treatment

General advise: If you feel unwell, seek medical advice; show product label if possible
If symptoms persist, always call a doctor

Section 5: Firefighting Measures

5.1. Extinguishing media

Use dry chemical, CO2, chemical foam or dried sand.

5.2 Special hazards arising from the substance or mixture

No further relevant information available

5.3 Advice to firefighters

Fight fire from a safe distance, with adequate cover
Wear self-contained breathing apparatus and full fire fighting turn-out gear

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Wear suitable protective clothing including eye/face protection
6.2 Environmental precautions

Avoid release to the environment
Do not allow to enter public sewers and waterways

6.3 Methods and material for containment and clean up

Clean up spills immediately
Collect spillage and wipe residue with a paper towel wetted with alcohol.
Collect spillage and dirty towels in a sealable waste container
Wash spill area with soap and water to remove last traces of residue

6.4 Reference to other sections

For further information see section 8

Section 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing dust/mist
Ensure adequate ventilation
Avoid using hot materials and fire around working area
Avoid contact with skin and eyes
Wash thoroughly after use
Wear protective gloves/protective clothing/eye protection
Flammable when heated

7.2 Conditions for safe storage, including any incompatibilities

Store locked up in a cool dry place below 40°C out of direct sun light
Isolate from ignition source such as heat, sparks, open flame
Keep container tightly sealed
Keep out of reach of children

7.3 Specific end uses(s)

Industrial abrasive material for cleaning and polishing
Safety Data Sheet

**Product name:** Pikal professional polishing paste
**Document Nr.:** SDS00153000250-01
**Date:** October 20th 2016
**Version:** 1.0

### Section 8: Exposure control and personal protection

#### 8.1. Control parameters

**Exposure limits**

**Occupational exposure limits (OEL)**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>200mg/m3</td>
<td>Not available</td>
</tr>
<tr>
<td>Kerosene</td>
<td>200mg/m3</td>
<td>Not available</td>
</tr>
<tr>
<td>Ammonia solution</td>
<td>18mg/m3</td>
<td>25mg/m3</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>52mg/m3</td>
<td>104mg/m3</td>
</tr>
<tr>
<td>Aluminium Oxide Al2O3</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Silica sand SiO2</td>
<td>Not available</td>
<td>0.025mg/m3</td>
</tr>
<tr>
<td>Fatty acids, C16-18 and C18- unsatured</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Water</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>PIKAL professional metal polishing paste</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

#### 8.2 Exposure controls

- **Control procedures:** Ensure adequate ventilation
  - Keep away from food stuffs, beverages and feed
  - Wash hands before breaks and at the end of work
  - Remove all soiled and contaminated clothing

- **Personal protection:** Take precautions to avoid contact with eyes and skin when handling the product
  - Inhalation: In case of insufficient ventilation, wear suitable respiratory equipment
  - Hands and skin: Wear suitable gloves against chemicals; recommended gloves: Nitrile
  - Eyes: Wear safety goggles or full face protection

### Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- **Appearance/physical state:** Paste
- **Colour:** Light brown
- **Odour:** Characteristic
- **pH:** 9-11

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**Micro to Nano**

**Innovative Microscopy Supplies**

Wateringweg 79  
2031EK Haarlem  
The Netherlands

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Boiling point/range: Not available
Flash point: 80°C (closed cup)
Evaporation rate: Not available
Explosion limits: upper limit: Not available
          lower limit: Not available
Vapour pressure: Not available
Specific gravity: 1.1 g/cm³ @ 20°C
Solubility in water: Dispersable
Self-ignition: Product is not self-igniting
Viscosity: Not available

9.2 Other information

VOC: Not available

Section 10: Stability and reactivity

10.1 Reactivity

Not reactive under recommend or normal conditions of handling, processing and use

10.2 Chemical stability

Stable at normal temperatures and pressures

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purposes

10.4 Conditions to avoid

Heating, freezing

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous decomposition products

BY heating, petroleum components (kerosene turns into inflammable vapour

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2031EK Haarlem
The Netherlands

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E info@microtonano.com
I www.microtonano.com
Section 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure:

- **Inhalation:** May be fatal if swallowed and enters airways
- **Ingestion:** May cause irritation
- **Skin contact:** Irritant to skin, redness or rash
  Sensitisation possible through skin contact
- **Eye contact:** May cause serious eye damage/irritation
- **Chronic:** CMR effects: Carc. 2

Toxicological data:

No information available

Section 12: Ecological information

12.1. Toxicity

Harmful to fish

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

12.5 Results of PBT and vPvB assessment

No further relevant information available

12.6 Hazardous decomposition products

No experimental data available
Section 13: Disposal considerations

13.1. Waste treatment methods

Product: This material and its container must be disposed of in a safe way. Do not discharge into drains or the environment, dispose to an authorised waste collection point.

National regulations: Disposal should be in accordance with local, state or national legislation.

Section 14: Transport information

14.1. UN number

UN-number: Not applicable

14.2 UN proper shipping name

Proper shipping name: Not applicable

14.3 Transport hazard class(es)

Class: Not applicable
ADR/RID-Classification code: Not applicable

14.4 Packing group

Packing: Not applicable

14.5 Incompatible materials

ADR/RID-Environmentally hazardous: Not applicable
IMDG-Marine pollutant: Not applicable
IATA/ICAO-Environmentally hazardous: Not applicable

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
Section 15: Regulatory information

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

Not applicable

15.2 Chemical safety assessment

All substances are listed

Section 16: Other information

RoHS Directive Compliant
This product is fully compliant with the directive 2100/65/EU Annex II (RoHS). It does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's or PBDE's.

WEEE
This product is not a piece of electrical or electronic equipment, and it therefore not governed by Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

Abbreviations:
- Asp. Tox: Aspiration hazard
- Carc.: Carcinogenicity
- Exp.: Exposure
- Flam.: Flammable
- GHS: Global Harmonised System of Classification of Labelling Chemicals
- Irrit.: Irritant
- N/A: Not applicable
- N/E: Not estimated
- PBT: Persistent Bioaccumulative and Toxic
- WEL: Workplace Exposure Limit
- Repr.: Reproductive toxicant
- RoHS: Restriction of Hazardous Substance
- SEM: Scanning Electron Microscope
- STEL: Short-Term Exposure Limit
- STOT: Specific Target Organ Toxicity
- TCLo: Lowest published toxic concentration
- vPvB: very Persistent and very Bioaccumulative
- WEEE: Waste Electrical and Electronic Equipment
Safety Data Sheet

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DSD / DPD label elements

{Image of a symbol with an 'X'}

Full Text Risk and Hazard codes

H302: Harmful if swallowed
H315: Causes mild skin irritation
H317: May cause an allergic skin reaction
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H351: Suspected of causing cancer

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P391: Collect spillage
P405: Store locked up
P501: Dispose of contents/container in accordance to local/regional/international regulations

Safety advice:

S02 – Keep out of reach of children.
S03 – Keep in a cool place
S07 – Keep container tightly closed
S13 – Keep away from food, drink and animal feeding stuff.
S16 – Keep away from sources of ignition
S20 – When using do not eat or drink
S21 – When using do not smoke
S23 – Do not breathe gas/fumes/vapour/spray.
S26 – In case of contact with eyes, rinse with plenty of water and seek medical help.
S28 – After contact with skin, wash immediately with detergent and plenty of water
S29 – Do not empty in drains.
S35 – This materials and its container must be disposed of in a safe way.
S36 – Wear suitable protective clothing.
S37 – Wear suitable gloves.
S38 – In case of insufficient ventilation, wear suitable respiratory equipment.
S39 – Wear eye / face protection.
S43 – In case of fire use dry sand, CO2, cheical spray
S45 – In case of accident or if you feel unwell, immediately contact Doctor or Poisons information center (show label if possible).
S46 – If swallowed, seek immediate medical advice and show label if possible.
S56 – Dispose of this materials and its container at hazardous or special waste collection point.
S61 – Avoid release to the environment
S63 – In case of accident by inhalation, remove casualty to fresh air and keep at rest.
S64 – If swallowed, rinse mouth with water (only if person is conscious)

This product should be stored, handled and used in accordance with good industrial hygiene practices and in accordance with any legal regulation.
The information contained herewith is based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It does not guarantee any specific properties.
It is the responsibility of the user to query and verify any information seeming suspect or where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, state, federal and international regulations.