

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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

1.1. Product Identifier

53-000270 PIKAL Liquid metal polish

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:	Specific target organ toxicity 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
Health: R40: Limited evidence of a carcinogenic effect



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

Physical	R37: Irritating to respiratory system
Environment:	R38: Irritating to skin
Other hazards:	R43: May cause sensitisation by skin contact
	R36: Irritating to eyes
	R10: Flammable
	R52: Harmful to aquatic systems
	Not classified

2.2 Labeling elements

Labelling accordance to Regulation EC Nr. 1272/2008

Hazard pictogramm(s):



Signal word:

Danger

Hazard statement(s):

H302: Harmful if swallowed
H315: Causes mild skin irritation
H317: May cause an allergic skin reaction
H320: Causes eye irritation
H227: Combustible liquid
H371: May cause damage to organs
H372: Causes damage to organs

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
P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and Understood
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking
P260: Do not breath 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.
P332+P313: If skin irritation occurs: Get medical advice/attention



Micro to Nano

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01**Date:** April 9th 2018
Version: 1.0

Storage: P305+P351+P338: If in eyes; rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention
P391: Collect spillage
P405: Store locked up

Disposal: P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents/container in accordance to local/regional/international regulations

Supplemental hazard info: none

2.3 Other hazards

Not classified

Section 3: Composition / information on components

3.1. Substances

Not applicable

3.2 Mixtures

Component	CAS Nr.	EC Nr.	WT%
Mineral oil (kerosene)	8042-47-5	232-455-8	10-20
Mineral turpentine	64742-82-1	232-366-4	10-20
Xylene	1330-20-7	203-576-3	<1
Aluminium Oxide Al ₂ O ₃	1344-28-1	215-691-6	15-25
Ethylene Glycol	107-21-1	203-473-3	1-5
Fatty acids	67701-08-0	266-932-7	--
Water	7732-18-5	231-791-2	--

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.

**Micro to Nano**

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The NetherlandsT +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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

Inhalation: Fresh air, keep warm and at rest.
Seek immediate medical advice

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 advice: 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



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

Fight fire from a safe distance, with adequate cover
Wear self-contained breathing apparatus and full firefighting 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



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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

Section 8: Exposure control and personal protection

8.1. Control parameters

Exposure limits

Occupational exposure limits (OEL)

Ingredient	TWA	STEL
Mineral oil (kerosene)	200mg/m ³	Not available
Mineral turpentine	200mg/m ³	Not available
Xylene	100mg/m ³	150mg/m ³
Aluminium Oxide Al ₂ O ₃	Not available	Not available
Ethylene Glycol	52mg/m ³	104mg/m ³
Fatty acids	Not available	Not available
Water	Not available	Not available
PIKAL Liquid metal polish	Not available	Not available

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



Micro to Nano

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance/physical state:	Liquid
Colour:	Creamy white
Odour:	Characteristic
pH	9-11
Freezing point:	0°C
Boiling point/range:	Not available
Flash point:	80°C
Evaporation rate:	Not available
Explosion limits: upper limit:	Not available
lower limit:	Not available
Vapour pressure:	Not available
Specific gravity:	1.1 g/cm ³ @ 20°C
Solubility in water:	Dispersible
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



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous decomposition products

By heating, petroleum components (kerosene) turns into flammable vapour

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

Not classified

12.2 Persistence and degradability

No further relevant information available

12.3 Bioaccumulative potential

No further relevant information available

12.4 Mobility in soil



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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

Labels required: None

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



Micro to Nano
Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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



Micro to Nano

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

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

DSD / DPD label elements



Full Text Risk and Hazard codes

- H302: Harmful if swallowed
 - H315: Causes mild skin irritation
 - H317: May cause an allergic skin reaction
 - H320: Causes eye irritation
 - H227: Combustible liquid
 - H371: May cause damage to organs
 - H372: Causes damage to organs
-
- 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
 - P201: Obtain special instructions before use
 - P202: Do not handle until all safety precautions have been read and understood
 - P260: Do not breath 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
 - 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.
 - P332+P313: If skin irritation occurs: Get medical advice/attention
 - P305+P351+P338: If in eyes; rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313: If eye irritation persists: Get medical advice/attention
 - P391: Collect spillage
 - P405: Store locked up



Micro to Nano

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com

Product name: PIKAL Liquid metal polish
Document Nr.: SDS00153000270-01

Date: April 9th 2018
Version: 1.0

P403+P233: Store in a well-ventilated place. Keep container tightly closed
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 breath 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 material 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, chemical 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 material 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.



Micro to Nano

Innovative Microscopy Supplies

Wateringweg 79
2031EK Haarlem
The Netherlands

T +31-85-2013155
E info@microtonano.com
I www.microtonano.com