Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.06.2015 *Version number 1* *Revision: 03.06.2015*

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Product name: 500 µg/g Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn in 75 cSt Hydrocarbon Oil [100g bottle]**

· **Part number:** 5190-8605

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture** Reference material for laboratory use only

· **Manufacturer/Supplier:**
Agilent Technologies Manufacturing GmbH & Co. KG Tel: 0800 603 1000
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany

· **Further information obtainable from:** e-mail: pdl-msds_author@agilent.com

· **1.4 Emergency telephone number:** CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

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

· **Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger

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(Contd. from page 1)

· ***Hazard-determining components of labelling:***
White mineral oil
Organo Nickel Compound
· ***Hazard statements***
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
· ***Precautionary statements***
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

SECTION 3: Composition/information on ingredients

· ***3.2 Chemical characterisation: Mixtures***
· ***Description:*** *Also contains substances at levels not considered to be hazardous.*

· ***Dangerous components:***		
CAS: 8042-47-5 *EINECS: 232-455-8* *RTECS: PY8047000*	*White mineral oil* *Xn R65* *Asp. Tox. 1, H304*	*> 95%*
RTECS: -	*Organo Nickel Compound* *T Repr. Cat. 2 R49-61-48/23; Xn R68; Xn R42/43; N R50/53* *Carc. Cat. 1, Muta. Cat. 3* *Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350i; Repr. 1B, H360D; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317*	*< 0.1%*

· ***Additional information:*** *For the wording of the listed risk phrases refer to section 16.*

SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***After inhalation:***
Supply fresh air and call a doctor.
In case of unconsciousness place patient in recovery position for transport.
· ***After skin contact:*** *Immediately wash with water and soap and rinse thoroughly.*
· ***After eye contact:*** *Rinse opened eye for several minutes under running water.*
· ***After swallowing:***
Rinse mouth. Do not induce vomiting.
Seek immediate medical advice.
· ***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.

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(Contd. from page 2)

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *Use fire extinguishing methods suitable for surrounding conditions.*
· ***5.2 Special hazards arising from the substance or mixture***
Formation of toxic gases is possible during heating or in case of fire.
· ***5.3 Advice for firefighters***
· ***Protective equipment:*** *Wear self-contained respiratory protective device.*

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures*** *Wear protective clothing.*
· ***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).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
· ***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.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.
· ***Information about fire - and explosion protection:*** *No special measures required.*

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store in a cool location.
Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.
Store only in the original receptacle.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
· ***Information about storage in one common storage facility:*** *Store away from foodstuffs.*
· ***Further information about storage conditions:*** *None.*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

SECTION 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 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.
· ***Additional information:*** *Lists used were valid at the time of SDS preparation.*

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(Contd. from page 3)

· ***8.2 Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
· ***Respiratory protection:***
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
· ***Protection of hands:***
Chemical-resistant, impervious gloves with an approved standards should be worn at all times.
The selection of the glove material is based on the penetration times, rates of diffusion and its degradation

Protective gloves

· ***Material of gloves***
Nitrile rubber, NBR
Natural rubber, NR
· ***Penetration time of glove material***
The protection time of the gloves can not be accurately estimated for mixtures consisting of several substances
Refer to and observe manufacturers break through times of the protective gloves.
· ***Eye protection:*** *Safety glasses*

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***	
· ***General Information***	
· ***Appearance:***	
Form:	*Oily*
Colour:	*Brown*
· ***Odour:***	*Mineral-oil-like*
· ***Odour threshold:***	*Not determined.*
· ***pH-value:***	*Not determined.*
· ***Change in condition***	
Melting point/Melting range:	*Not determined.*
Boiling point/Boiling range:	*218 °C*
· ***Flash point:***	*115 °C*
· ***Flammability (solid, gaseous):***	*Not determined.*
· ***Ignition temperature:***	
Decomposition temperature:	*Not determined.*
· ***Self-igniting:***	*Product is not selfigniting.*
· ***Danger of explosion:***	*Not determined.*

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(Contd. from page 4)

· ***Explosion limits:***	
Lower:	*Not determined.*
Upper:	*Not determined.*
· ***Vapour pressure:***	*Not determined.*
· ***Density at 20 °C:***	*0.862 g/cm³*
· ***Relative density***	*Not determined.*
· ***Vapour density***	*Not determined.*
· ***Evaporation rate***	*Not determined.*
· ***Solubility in / Miscibility with water:***	*Not miscible or difficult to mix.*
· ***Partition coefficient (n-octanol/water):***	*Not determined.*
· ***Viscosity:***	
Dynamic:	*Not determined.*
Kinematic:	*Not determined.*
· ***9.2 Other information***	*No further relevant information available.*

SECTION 10: Stability and reactivity

· ***10.1 Reactivity*** *Stable under normal conditions.*
· ***10.2 Chemical stability*** *Stable under normal conditions.*
· ***Thermal decomposition / conditions to be avoided:***
Formation of toxic gases is possible during heating or in case of fire.
· ***10.3 Possibility of hazardous reactions*** *No dangerous reactions known.*
· ***10.4 Conditions to avoid*** *Heat.*
· ***10.5 Incompatible materials:*** *Strong oxidizing agents.*
· ***10.6 Hazardous decomposition products:***
Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: Toxicological information

· ***11.1 Information on toxicological effects*** *May be fatal if swallowed and enters airways.*
· ***Acute toxicity:***

· ***LD/LC50 values relevant for classification:***		
8042-47-5 White mineral oil		
Oral	*LD50*	*> 5000 mg/kg (rat)*

· ***Primary irritant effect:***
· ***on the skin:*** *May cause an allergic skin reaction.*
· ***on the eye:*** *No irritating effect.*
· ***Sensitisation:*** *Sensitisation possible through skin contact.*
· ***Additional toxicological information:***
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

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SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **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.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product to reach ground water, water course or sewage system.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 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.
· **European waste catalogue**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

· **Uncleaned packaging:**
· **Recommendation:** Dispose of in accordance with national regulations.

SECTION 14: Transport information

· **14.1 UN-Number**	
· **ADR, ADN, IMDG, IATA**	Not applicable
· **ADR, ADN, IMDG, IATA**	Not applicable
· **14.3 Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA**	
· **Class**	Not applicable
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	Not applicable
· **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.
· **UN "Model Regulation":**	-

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SECTION 15: Regulatory information

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

· **Philippines Inventory of Chemicals and Chemical Substances**	
8042-47-5	White mineral oil
	Organo Silver Compound
	Organo Aluminium Compound
	Organo Boron Compound
	Organo Chromium Compound
	Organo Cadmium Compound
	Organo Copper Compound
	Organo Iron Compound
	Organo Molybdenum Compound
	Organo Nickel Compound
	Organo Lead Compound
	Organo Silicon Compound
	Organo Vanadium Compound
	Organo Zinc Compund

· **Australian Inventory of Chemical Substances**	
8042-47-5	White mineral oil
	Organo Silver Compound
	Organo Aluminium Compound
	Organo Boron Compound
	Organo Chromium Compound
	Organo Cadmium Compound
	Organo Copper Compound
	Organo Iron Compound
	Organo Molybdenum Compound
	Organo Nickel Compound
	Organo Lead Compound
	Organo Silicon Compound
	Organo Vanadium Compound
	Organo Zinc Compund

· **Standard for the Uniform Scheduling of Medicines and Poisons**	
Organo Silver Compound	S2
Organo Boron Compound	S4
Organo Lead Compound	S4+APPENDI

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

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· ***Relevant phrases***

H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

R42/43 May cause sensitisation by inhalation and skin contact.
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R49 May cause cancer by inhalation.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61 May cause harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R68 Possible risk of irreversible effects.

· ***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)
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 2: Germ cell mutagenicity, Hazard Category 2
Carc. 1A: Carcinogenicity, Hazard Category 1Ai
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

· ***Sources***

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.