

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 11/18/2019

Reviewed on 11/18/2019

**1 Identification**

- **Product identifier**
- **Product name: Calibration Mix 3, Metals in Oil: Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn (500 mg/kg) in Mineral Oil**
- **Part number:** 6610030200
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Agilent Technologies, Inc. Tel: 800-227-9770  
5301 Stevens Creek Blvd  
Santa Clara, CA 95051,  
USA
- **Information department:** e-mail: [pdl-msds\\_author@agilent.com](mailto:pdl-msds_author@agilent.com)
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

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

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GHS07

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

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- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
White mineral oil, petroleum  
Organo Nickel Compound
- **Hazard statements**  
H317 May cause an allergic skin reaction.  
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P280 Wear protective gloves.  
P301+P310 If swallowed: Immediately call a poison center/doctor.  
P321 Specific treatment (see on this label).

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P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 1

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.





- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Also contains substances at levels not considered to be hazardous.

- **Dangerous components:**

CAS: 8042-47-5	White mineral oil, petroleum	>95%
RTECS: PY8047000	 Asp. Tox. 1, H304	
RTECS: -	<b>Organo Nickel Compound</b>  Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350; Repr. 1B, H360; STOT RE 1, H372;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Skin Sens. 1, H317	<0.1%

### 4 First-aid measures

- **Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- **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.

Immediately call a doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
Suitable extinguishing agents: Use fire fighting measures that suit the environment.
Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
Advice for firefighters
Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective clothing.
Environmental precautions: Do not allow to enter sewers/ surface or ground water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
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.
Protective Action Criteria for Chemicals

PAC-1:
None of the ingredients is listed.

PAC-2:
None of the ingredients is listed.

PAC-3:
None of the ingredients is listed.

7 Handling and storage

- Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

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- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **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.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **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.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
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:**  
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  
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**  
Nitrile rubber, NBR  
Natural rubber, NR
- **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.
- **Eye protection:** Safety glasses

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### 9 Physical and chemical properties

· *Information on basic physical and chemical properties*

· *General Information*

· *Appearance:*

<i>Form:</i>	<i>Oily</i>
<i>Color:</i>	<i>Colorless</i>
<i>Odor:</i>	<i>Mineral-oil-like</i>
<i>Odor threshold:</i>	<i>Not determined.</i>

· *pH-value:* *Not determined.*

· *Change in condition*

<i>Melting point/Melting range:</i>	<i>Not determined.</i>
	<i>Not determined.</i>
<i>Boiling point/Boiling range:</i>	<i>218 °C (424.4 °F)</i>

· *Flash point:* *115 °C (239 °F)*

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

· *Ignition temperature:* *Not determined*

· *Decomposition temperature:* *Not determined.*

· *Auto igniting:* *Product is not selfigniting.*

· *Danger of explosion:* *Not determined.*

· *Explosion limits:*

<i>Lower:</i>	<i>Not determined.</i>
<i>Upper:</i>	<i>Not determined.</i>

· *Vapor pressure:* *Not determined.*

· *Density at 20 °C (68 °F):* *0.862 g/cm<sup>3</sup> (7.19339 lbs/gal)*

· *Relative density* *Not determined.*

· *Vapor 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:*

<i>Dynamic:</i>	<i>Not determined.</i>
<i>Kinematic:</i>	<i>Not determined.</i>

· *Solvent content:*

*VOC content:* *0.00 %*

· *Other information* *No further relevant information available.*

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### 10 Stability and reactivity

- **Reactivity**  
Stable under normal conditions.  
No further relevant information available.
- **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.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**CAS: 8042-47-5 White mineral oil, petroleum**

Oral	LD50	>5,000 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

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

Organo Nickel Compound	1
Organo Cadmium Compound	1
Organo Chromium Compound	3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

Organo Cadmium Compound

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

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- Mobility in soil No further relevant information available.
· Additional ecological information:
· General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
· Recommendation:
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· Uncleaned packagings:
· Recommendation: Dispose in accordance with national regulations.

14 Transport information

- UN-Number
· DOT, ADR, IMDG, IATA Not applicable
· DOT, ADR, IMDG, IATA Not applicable
· Transport hazard class(es)
· DOT, ADR, ADN, IMDG, IATA
· Class Not applicable
· Packing group
· DOT, ADR, IMDG, IATA Not applicable
· Environmental hazards: Not applicable.
· Special precautions for user Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
· UN "Model Regulation": Not applicable

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara
· Section 355 (extremely hazardous substances):
None of the ingredients is listed.

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· **Section 313 (Specific toxic chemical listings):**

Organo Aluminium Compound

Organo Vanadium Compound

Organo Silver Compound

Organo Cadmium Compound

Organo Chromium Compound

Organo Copper Compound

Organo Zinc Compund

· **TSCA (Toxic Substances Control Act):**

CAS: 8042-47-5 White mineral oil, petroleum

ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Organo Cadmium Compound

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Organo Silver Compound

D

Organo Boron Compound

I

Organo Chromium Compound

D

Organo Copper Compound

D

Organo Zinc Compund

II

· **TLV (Threshold Limit Value established by ACGIH)**

Organo Aluminium Compound

A4

Organo Chromium Compound

A4

Organo Molybdenum Compound

A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Organo Cadmium Compound

· **Hazard pictograms**



GHS07

GHS08

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- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*White mineral oil, petroleum*  
*Organo Nickel Compound*
- **Hazard statements**  
*H317 May cause an allergic skin reaction.*  
*H304 May be fatal if swallowed and enters airways.*
- **Precautionary statements**  
*P261 Avoid breathing dust/fume/gas/mist/vapors/spray*  
*P280 Wear protective gloves.*  
*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.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

**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.

- **Date of preparation / last revision** *11/18/2019 / 1*
- **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*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*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)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*NIOSH: National Institute for Occupational Safety*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*  
*PEL: Permissible Exposure Limit*  
*REL: Recommended Exposure Limit*  
*Resp. Sens. 1: Respiratory sensitisation – Category 1*  
*Skin Sens. 1: Skin sensitisation – Category 1*  
*Muta. 2: Germ cell mutagenicity – Category 2*  
*Carc. 1A: Carcinogenicity – Category 1A*  
*Repr. 1B: Reproductive toxicity – Category 1B*  
*STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*  
*Asp. Tox. 1: Aspiration hazard – Category 1*  
*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*  
*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

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· **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.*

· ***Data compared to the previous version altered.*** All sections have been updated.

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