

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

Printing date 03/12/2020

Reviewed on 06/21/2018

**1 Identification**

- **Product identifier**
- **Trade name:** OMS-21
- **Article number:** OMS-21
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
High-Purity Standards  
7221 Investment Drive, North Charleston, SC 29418 United States  
Telephone: +1-843-767-7900  
Fax: +1-843-767-7906  
highpuritystandards.com  
Email: info@highpuritystandards.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
INFOTRAC  
Emergency telephone numbers 1-800-535-5053  
Other emergency telephone numbers 1-352-323-3500

**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.

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



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
White mineral oil, petroleum
- **Hazard statements**  
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**  
If swallowed: Immediately call a poison center/doctor.  
Do NOT induce vomiting.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



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



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

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

8042-47-5	White mineral oil, petroleum	99.58%
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**Chemical identification of the substance/preparation**

7429-90-5	aluminium	0.02%
7439-89-6	iron	0.02%
7439-92-1	lead	0.02%
7439-95-4	magnesium	0.02%
7439-96-5	manganese	0.02%
7439-98-7	molybdenum	0.02%
7440-02-0	nickel	0.02%
7440-21-3	silicon	0.02%
7440-22-4	silver	0.02%
7440-23-5	sodium	0.02%
7440-31-5	tin	0.02%
7440-32-6	titanium	0.02%
7440-39-3	barium	0.02%
7440-42-8	boron	0.02%
7440-43-9	cadmium	0.02%
7440-47-3	chromium	0.02%
7440-50-8	copper	0.02%

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7440-62-2	vanadium	0.02%
7440-66-6	zinc	0.02%
7440-70-2	calcium	0.02%
7723-14-0	phosphorus	0.02%

**4 First-aid measures**

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
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.
- **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:**

7439-89-6	iron	3.2 mg/m <sup>3</sup>
7439-92-1	lead	0.15 mg/m <sup>3</sup>

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7439-95-4	magnesium	18 mg/m <sup>3</sup>
7439-96-5	manganese	3 mg/m <sup>3</sup>
7439-98-7	molybdenum	30 mg/m <sup>3</sup>
7440-02-0	nickel	4.5 mg/m <sup>3</sup>
7440-21-3	silicon	45 mg/m <sup>3</sup>
7440-22-4	silver	0.3 mg/m <sup>3</sup>
7440-23-5	sodium	13 mg/m <sup>3</sup>
7440-31-5	tin	6 mg/m <sup>3</sup>
7440-32-6	titanium	30 mg/m <sup>3</sup>
7440-39-3	barium	1.5 mg/m <sup>3</sup>
7440-42-8	boron	1.9 mg/m <sup>3</sup>
7440-43-9	cadmium	0.10 mg/m <sup>3</sup>
7440-47-3	chromium	1.5 mg/m <sup>3</sup>
7440-50-8	copper	3 mg/m <sup>3</sup>
7440-62-2	vanadium	3 mg/m <sup>3</sup>
7440-66-6	zinc	6 mg/m <sup>3</sup>
7723-14-0	phosphorus	0.27 mg/m <sup>3</sup>

**PAC-2:**

7439-89-6	iron	35 mg/m <sup>3</sup>
7439-92-1	lead	120 mg/m <sup>3</sup>
7439-95-4	magnesium	200 mg/m <sup>3</sup>
7439-96-5	manganese	5 mg/m <sup>3</sup>
7439-98-7	molybdenum	330 mg/m <sup>3</sup>
7440-02-0	nickel	50 mg/m <sup>3</sup>
7440-21-3	silicon	100 mg/m <sup>3</sup>
7440-22-4	silver	170 mg/m <sup>3</sup>
7440-23-5	sodium	140 mg/m <sup>3</sup>
7440-31-5	tin	67 mg/m <sup>3</sup>
7440-32-6	titanium	330 mg/m <sup>3</sup>
7440-39-3	barium	180 mg/m <sup>3</sup>
7440-42-8	boron	21 mg/m <sup>3</sup>
7440-43-9	cadmium	0.76 mg/m <sup>3</sup>
7440-47-3	chromium	17 mg/m <sup>3</sup>
7440-50-8	copper	33 mg/m <sup>3</sup>
7440-62-2	vanadium	5.8 mg/m <sup>3</sup>
7440-66-6	zinc	21 mg/m <sup>3</sup>
7723-14-0	phosphorus	3 mg/m <sup>3</sup>

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· <b>PAC-3:</b>		
7439-89-6	iron	150 mg/m <sup>3</sup>
7439-92-1	lead	700 mg/m <sup>3</sup>
7439-95-4	magnesium	1,200 mg/m <sup>3</sup>
7439-96-5	manganese	1,800 mg/m <sup>3</sup>
7439-98-7	molybdenum	2,000 mg/m <sup>3</sup>
7440-02-0	nickel	99 mg/m <sup>3</sup>
7440-21-3	silicon	630 mg/m <sup>3</sup>
7440-22-4	silver	990 mg/m <sup>3</sup>
7440-23-5	sodium	870 mg/m <sup>3</sup>
7440-31-5	tin	400 mg/m <sup>3</sup>
7440-32-6	titanium	2,000 mg/m <sup>3</sup>
7440-39-3	barium	1,100 mg/m <sup>3</sup>
7440-42-8	boron	130 mg/m <sup>3</sup>
7440-43-9	cadmium	4.7 mg/m <sup>3</sup>
7440-47-3	chromium	99 mg/m <sup>3</sup>
7440-50-8	copper	200 mg/m <sup>3</sup>
7440-62-2	vanadium	35 mg/m <sup>3</sup>
7440-66-6	zinc	120 mg/m <sup>3</sup>
7723-14-0	phosphorus	18 mg/m <sup>3</sup>

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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.

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- **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.  
Wash hands before breaks and at the end of work.*
- **Breathing equipment:** *Not required.*
- **Protection of hands:**  
*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*
- **Material of gloves**  
*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.*
- **Eye protection:** *Goggles recommended during refilling.*

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Brown
<b>Odor:</b>	Characteristic
<b>Odor threshold:</b>	Not determined.
- **pH-value:** Not determined.
- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
- **Flash point:** >112 °C (>233.6 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.

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· <b>Auto igniting:</b>	<i>Product is not selfigniting.</i>
· <b>Danger of explosion:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Explosion limits:</b> <b>Lower:</b> <b>Upper:</b>	<i>Not determined.</i> <i>Not determined.</i>
· <b>Vapor pressure:</b>	<i>Not determined.</i>
· <b>Density:</b> · <b>Relative density</b> · <b>Vapor density</b> · <b>Evaporation rate</b>	<i>Not determined.</i> <i>Not determined.</i> <i>Not determined.</i> <i>Not determined.</i>
· <b>Solubility in / Miscibility with Water:</b>	<i>Fully miscible.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b> <b>Dynamic:</b> <b>Kinematic:</b>	<i>Not determined.</i> <i>Not determined.</i>
· <b>Solvent content:</b> <b>VOC content:</b>	<i>0.00 %</i> <i>0.0 g/l / 0.00 lb/gal</i>
· <b>Solids content:</b> · <b>Other information</b>	<i>0.4 %</i> <i>No further relevant information available.</i>

**10 Stability and reactivity**

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**

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

7439-92-1	lead	2B
7440-02-0	nickel	2B
7440-43-9	cadmium	1
7440-47-3	chromium	3

· **NTP (National Toxicology Program)**

7439-92-1	lead	R
7440-02-0	nickel	R
7440-43-9	cadmium	K

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

7440-43-9	cadmium	
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**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.
- **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:** Disposal must be made according to official regulations.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

· **UN-Number**  
· **DOT, ADR, ADN, IMDG, IATA**                      *not regulated*

· **UN proper shipping name**  
· **DOT, ADR, ADN, IMDG, IATA**                      *not regulated*

· **Transport hazard class(es)**  
· **DOT, ADR, ADN, IMDG, IATA**  
· **Class**    *not regulated*

· **Packing group**  
· **DOT, ADR, IMDG, IATA**                                      *not regulated*

· **Environmental hazards:**                                      *Not applicable.*

· **Special precautions for user**                                      *Not applicable.*

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**                      *Not applicable.*

· **UN "Model Regulation":**                                      *not regulated*

**15 Regulatory information**

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

· **Section 355 (extremely hazardous substances):**

7723-14-0	phosphorus
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· **Section 313 (Specific toxic chemical listings):**

7429-90-5	aluminium
7439-92-1	lead
7439-96-5	manganese
7440-02-0	nickel
7440-22-4	silver
7440-39-3	barium
7440-43-9	cadmium
7440-47-3	chromium
7440-50-8	copper
7440-62-2	vanadium

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7440-66-6	zinc
7723-14-0	phosphorus

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

All components have the value ACTIVE.

**· Hazardous Air Pollutants**

7439-92-1	lead
7439-96-5	manganese
7723-14-0	phosphorus

**· Proposition 65**

**· Chemicals known to cause cancer:**

7439-92-1	lead
7440-02-0	nickel
7440-43-9	cadmium

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

7439-92-1	lead
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**· Chemicals known to cause reproductive toxicity for males:**

7439-92-1	lead
7440-43-9	cadmium

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

7439-92-1	lead
7440-43-9	cadmium

**· Carcinogenic categories**

**· EPA (Environmental Protection Agency)**

7439-92-1	lead	B2
7439-96-5	manganese	D
7440-22-4	silver	D
7440-39-3	barium	D, CBD(inh), NL(oral)
7440-42-8	boron	I (oral)
7440-43-9	cadmium	B1
7440-47-3	chromium	D
7440-50-8	copper	D
7440-66-6	zinc	D, I, II
7723-14-0	phosphorus	D

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

7429-90-5	aluminium	A4
7439-92-1	lead	A3
7439-98-7	molybdenum	A3

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7440-02-0	nickel	A5
7440-39-3	barium	A4
7440-43-9	cadmium	A2
7440-47-3	chromium	A4

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

7440-02-0	nickel
7440-43-9	cadmium

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



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- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*White mineral oil, petroleum*
- **Hazard statements**  
*H304 May be fatal if swallowed and enters airways.*
- **Precautionary statements**  
*If swallowed: Immediately call a poison center/doctor.  
Do NOT induce vomiting.  
Store locked up.  
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**

*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.*

- **Department issuing SDS:** *Environment protection department.*
- **Contact:**  
*High-Purity Standards  
Tel: 843-767-7900  
Fax: 843-767-7906*
- **Date of preparation / last revision** *03/12/2020 / -*
- **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*

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*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)*  
*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*  
*Asp. Tox. 1: Aspiration hazard – Category 1*

US