

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

Printing date 06/01/2021

Reviewed on 06/01/2021

## 1 Identification

- **Product identifier**
- **Product Name:** 23-ELEMENT OIL STANDARD
- **Part Name:**  
S23-900Y  
S23-900Z
- **Application of the substance / the mixture** *Certified Reference Material*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SPEX CertiPrep, LLC.  
203 Norcross Ave, Metuchen,  
NJ 08840 USA
- **Information department:** *product safety department*
- **Emergency telephone number:**  
*Emergency Phone Number (24 hours)*  
CHEMTREC (800-424-9300)  
*Outside US:* 703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture** *The product is not classified, according to the Globally Harmonized System (GHS).*

- **Label elements**
- **GHS label elements** *Not Regulated*
- **Hazard pictograms** *Not Regulated*
- **Signal word** *Not Regulated*
- **Hazard statements** *Not Regulated*
- **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:** *Not Regulated*

### Chemical identification of the substance/preparation

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	97.93%
7429-90-5	aluminium	0.09%
7439-89-6	iron	0.09%
7439-92-1	lead	0.09%
7439-95-4	magnesium	0.09%
7439-96-5	manganese	0.09%
7439-98-7	molybdenum	0.09%
7440-02-0	nickel	0.09%
7440-09-7	potassium	0.09%
7440-21-3	silicon	0.09%
7440-22-4	silver	0.09%
7440-23-5	sodium	0.09%
7440-31-5	tin	0.09%

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7440-32-6	titanium	0.09%
7440-36-0	antimony	0.09%
7440-39-3	barium	0.09%
7440-42-8	boron	0.09%
7440-43-9	cadmium	0.09%
7440-47-3	chromium	0.09%
7440-50-8	copper	0.09%
7440-62-2	vanadium	0.09%
7440-66-6	zinc powder- zinc dust (pyrophoric)	0.09%
7440-70-2	calcium	0.09%
7723-14-0	phosphorus	0.09%

**4 First-aid measures**

- **Description of first aid measures**
- **General information:** No special measures required.
- **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:** Do not give anything to eat or drink - Do not induce vomiting
- **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:** 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).
- **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:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	140 mg/m <sup>3</sup>
7439-89-6	iron	3.2 mg/m <sup>3</sup>
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>
7440-31-5	tin	6 mg/m <sup>3</sup>
7440-32-6	titanium	30 mg/m <sup>3</sup>
7440-36-0	antimony	1.5 mg/m <sup>3</sup>
7440-43-9	cadmium	0.10 mg/m <sup>3</sup>
7440-50-8	copper	3 mg/m <sup>3</sup>

· **PAC-2:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1,500 mg/m <sup>3</sup>
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7439-89-6	iron	35 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>
7440-31-5	tin	67 mg/m <sup>3</sup>
7440-32-6	titanium	330 mg/m <sup>3</sup>
7440-36-0	antimony	13 mg/m <sup>3</sup>
7440-43-9	cadmium	0.76 mg/m <sup>3</sup>
7440-50-8	copper	33 mg/m <sup>3</sup>

**· PAC-3:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	8,900 mg/m <sup>3</sup>
7439-89-6	iron	150 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>
7440-31-5	tin	400 mg/m <sup>3</sup>
7440-32-6	titanium	2,000 mg/m <sup>3</sup>
7440-36-0	antimony	80 mg/m <sup>3</sup>
7440-43-9	cadmium	4.7 mg/m <sup>3</sup>
7440-50-8	copper	200 mg/m <sup>3</sup>

**7 Handling and storage****· Handling:****· Precautions for safe handling**

No special measures required.

Follow good laboratory practices.

**· 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:** None.**· 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:** The usual precautionary measures for handling chemicals should be followed.**· Respiratory protection:** 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.

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- **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>	Liquid
· <b>Color:</b>	According to product specification
· <b>Odor:</b>	Characteristic
· <b>Odour Threshold:</b>	Not applicable.

· **pH-value:** Not applicable.

##### · Change in condition

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not applicable.

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

· **Danger of explosion:** Product does not present an explosion hazard.

##### · Explosion limits:

· <b>Lower:</b>	Not applicable.
· <b>Upper:</b>	Not applicable.

· **Vapor pressure:** Not determined.

· **Density** Not applicable.

· **Relative density** Not applicable.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

##### · Solubility in / Miscibility with

· **Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not applicable.

##### · Viscosity:

· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.

##### · Solvent content:

· **VOC content:** 0.00 %

· **Solids content:** 1.8 %

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

### 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.

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**11 Toxicological information**

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

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

7440-43-9 cadmium

Oral | LD50 | 225 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **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

**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:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- **UN-Number**
- **DOT, ADR, IMDG, IATA** Not Regulated
- **UN proper shipping name**
- **DOT, ADR, IMDG, IATA** Not Regulated

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

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture** No further relevant information available.
- **Sara**

· **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
7440-36-0	antimony
7440-39-3	barium
7440-43-9	cadmium
7440-47-3	chromium
7440-50-8	copper
7440-62-2	vanadium
7440-66-6	zinc powder- zinc dust (pyrophoric)
7723-14-0	phosphorus

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

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	ACTIVE
7429-90-5	aluminium	ACTIVE
7439-89-6	iron	ACTIVE
7439-95-4	magnesium	ACTIVE
7439-96-5	manganese	ACTIVE
7439-98-7	molybdenum	ACTIVE
7440-02-0	nickel	ACTIVE
7440-21-3	silicon	ACTIVE
7440-22-4	silver	ACTIVE
7440-31-5	tin	ACTIVE
7440-32-6	titanium	ACTIVE
7440-36-0	antimony	ACTIVE
7440-43-9	cadmium	ACTIVE
7440-50-8	copper	ACTIVE

· **Hazardous Air Pollutants**

7439-96-5	manganese
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· **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	CBD, NL
7440-42-8	boron	I
7440-43-9	cadmium	B1
7440-47-3	chromium	D
7440-50-8	copper	D
7440-66-6	zinc powder- zinc dust (pyrophoric)	II
7723-14-0	phosphorus	D

· **TLV (Threshold Limit Value)**

7429-90-5	aluminium	A4
7439-92-1	lead	A3
7439-98-7	molybdenum	A3
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** Not Regulated
- **Hazard pictograms** Not Regulated
- **Signal word** Not Regulated
- **Hazard statements** Not Regulated
- **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:** product safety department

· **Contact:**

SPEX CertiPrep, LLC.  
1-732-549-7144

- **Date of preparation / last revision** 06/01/2021 / -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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  
 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