

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%

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 1)

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 ³
7439-89-6	iron	3.2 mg/m ³
7439-95-4	magnesium	18 mg/m ³
7439-96-5	manganese	3 mg/m ³
7439-98-7	molybdenum	30 mg/m ³
7440-02-0	nickel	4.5 mg/m ³
7440-21-3	silicon	45 mg/m ³
7440-22-4	silver	0.3 mg/m ³
7440-31-5	tin	6 mg/m ³
7440-32-6	titanium	30 mg/m ³
7440-36-0	antimony	1.5 mg/m ³
7440-43-9	cadmium	0.10 mg/m ³
7440-50-8	copper	3 mg/m ³

- **PAC-2:**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1,500 mg/m ³
------------	---	-------------------------

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 2)

7439-89-6	iron	35 mg/m ³
7439-95-4	magnesium	200 mg/m ³
7439-96-5	manganese	5 mg/m ³
7439-98-7	molybdenum	330 mg/m ³
7440-02-0	nickel	50 mg/m ³
7440-21-3	silicon	100 mg/m ³
7440-22-4	silver	170 mg/m ³
7440-31-5	tin	67 mg/m ³
7440-32-6	titanium	330 mg/m ³
7440-36-0	antimony	13 mg/m ³
7440-43-9	cadmium	0.76 mg/m ³
7440-50-8	copper	33 mg/m ³

· PAC-3:

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	8,900 mg/m ³
7439-89-6	iron	150 mg/m ³
7439-95-4	magnesium	1,200 mg/m ³
7439-96-5	manganese	1,800 mg/m ³
7439-98-7	molybdenum	2,000 mg/m ³
7440-02-0	nickel	99 mg/m ³
7440-21-3	silicon	630 mg/m ³
7440-22-4	silver	990 mg/m ³
7440-31-5	tin	400 mg/m ³
7440-32-6	titanium	2,000 mg/m ³
7440-36-0	antimony	80 mg/m ³
7440-43-9	cadmium	4.7 mg/m ³
7440-50-8	copper	200 mg/m ³

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.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 3)

- **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:

· Form:	Liquid
· Color:	According to product specification
· Odor:	Characteristic
· Odour Threshold:	Not applicable.

· **pH-value:** Not applicable.

· Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	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:

· Lower:	Not applicable.
· Upper:	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:

· Dynamic:	Not applicable.
· Kinematic:	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.

US

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 4)

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

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 5)

· 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 MARPOL73/78 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** 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
-----------	-----------

· **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
-----------	------

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/01/2021

Reviewed on 06/01/2021

Product Name: 23-ELEMENT OIL STANDARD

(Contd. of page 6)

· **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