

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/02/2015

Reviewed on 07/02/2015

1 Identification

- **Product identifier**
- **Product Name:** 21-ELEMENT OIL STANDARD
- **Part Number:** S21-300Y
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **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** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMS-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:

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	99.37%
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Chemical identification of the substance/preparation

7440-22-4	silver	0.03%
7440-39-3	Barium from Barium carbonate	0.03%
7439-95-4	magnesium	0.03%
7439-98-7	molybdenum	0.03%
7440-31-5	tin	0.03%
7440-70-2	Calcium from Calcium carbonate	0.03%
7439-89-6	iron	0.03%
7440-62-2	Vanadium from Ammonium trioxovanadate	0.03%
7440-21-3	alkali fluorosilicates (NH ₄)	0.03%
7723-14-0	Phosphorus from Ammonium dihydrogenorthophosphate	0.03%
7440-42-8	Boron from Ammonium tetraborate tetrahydrate	0.03%
7440-43-9	cadmium (non-pyrophoric)	0.03%
7440-50-8	copper	0.03%

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7439-96-5	manganese	0.03%
7440-02-0	nickel	0.03%
7439-92-1	Lead from Lead Oxide	0.03%
7440-66-6	zinc powder -zinc dust (stabilized)	0.03%
7440-32-6	titanium	0.03%
7429-90-5	aluminium	0.03%
7440-47-3	Chromium from Chromium(III) nitrate nonahydrate	0.03%
7440-23-5	Sodium from Sodium carbonate	0.03%

4 First-aid measures

- **Description of first aid measures**
- **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:** 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:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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).
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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
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:** 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.

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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:**
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.
- **Protection of hands:**



Protective gloves

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:**

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:	> 315 °C (> 599 °F)

- **Flash point:** Not applicable.

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

- **Ignition temperature:**

Decomposition temperature:	Not applicable.
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- **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**

- **Relative density**

- **Vapour density**

- **Evaporation rate**

- **Solubility in / Miscibility with**

Water:	Not miscible or difficult to mix.
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- **Partition coefficient (n-octanol/water):** Not applicable.

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- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - Organic solvents:** 0.0 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **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.
- **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)

7440-43-9	cadmium (non-pyrophoric)	1
7440-02-0	nickel	1
7439-92-1	Lead from Lead Oxide	2B
7440-47-3	Chromium from Chromium(III) nitrate nonahydrate	3

· NTP (National Toxicology Program)

7440-43-9	cadmium (non-pyrophoric)	K
7440-02-0	nickel	R
7439-92-1	Lead from Lead Oxide	R

· OSHA-Ca (Occupational Safety & Health Administration)

7440-43-9	cadmium (non-pyrophoric)	
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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.

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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.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· 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":	-

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 from Ammonium dihydrogenorthophosphate
· Section 313 (Specific toxic chemical listings):	
7440-22-4	silver
7440-39-3	Barium from Barium carbonate
7440-62-2	Vanadium from Ammonium trioxovanadate
7723-14-0	Phosphorus from Ammonium dihydrogenorthophosphate
7440-43-9	cadmium (non-pyrophoric)
7440-50-8	copper
7439-96-5	manganese
7440-02-0	nickel
7439-92-1	Lead from Lead Oxide
7440-66-6	zinc powder -zinc dust (stabilized)
7429-90-5	aluminium
7440-47-3	Chromium from Chromium(III) nitrate nonahydrate
· TSCA (Toxic Substances Control Act):	
	All ingredients are listed.
· Proposition 65	
· Chemicals known to cause cancer:	
7440-43-9	cadmium (non-pyrophoric)
7440-02-0	nickel
7439-92-1	Lead from Lead Oxide
· Chemicals known to cause reproductive toxicity for females:	
	None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:	
7440-43-9	cadmium (non-pyrophoric)

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· Chemicals known to cause developmental toxicity:

7440-43-9	cadmium (non-pyrophoric)
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· Carcinogenic categories
· EPA (Environmental Protection Agency)

7440-22-4	silver	D
7440-39-3	Barium from Barium carbonate	D, CBD(inh), NL(oral)
7440-42-8	Boron from Ammonium tetraborate tetrahydrate	I (oral)
7440-43-9	cadmium (non-pyrophoric)	B1
7440-50-8	copper	D
7439-96-5	manganese	D
7439-92-1	Lead from Lead Oxide	B2
7440-66-6	zinc powder -zinc dust (stabilized)	D, I, II

· TLV (Threshold Limit Value established by ACGIH)

7440-39-3	Barium from Barium carbonate	A4
7439-98-7	molybdenum	A3
7440-43-9	cadmium (non-pyrophoric)	A2
7440-02-0	nickel	A5
7439-92-1	Lead from Lead Oxide	A3
7429-90-5	aluminium	A4

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

7440-43-9	cadmium (non-pyrophoric)	
7440-02-0	nickel	

· GHS label elements Void

· Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· 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 07/02/2015 / -

· 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)