

Safety Data Sheet acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

1 Identification

- **Product identifier**
- **Trade name:** *SPEO-006, SQCO-006*
- **Other means of identification**
- **Application of the substance / the mixture** *For Laboratory Use Only*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*NSI Lab Solutions
7212 ACC Blvd.,
Raleigh, NC 27617
USA*
- **Information department:** *Product safety department*
- **Emergency telephone number:** *During normal opening times: +1 (919) 789-3000*

* 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Germ cell mutagenicity 2

H341 Suspected of causing genetic defects.

Carcinogenicity 1A

H350 May cause cancer.

Specific target organ toxicity (single exposure) 1

H370 Causes damage to organs.

Specific target organ toxicity (repeated exposure) 1

H372 Causes damage to organs through prolonged or repeated exposure.

- **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:**
Quartz (SiO₂)
- **Hazard statements**
*Suspected of causing genetic defects.
May cause cancer.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.*
- **Precautionary statements**
Obtain special instructions before use.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 1)

Do not handle until all safety precautions have been read and understood.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 Specific treatment (see on this label).
 IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Information pertaining to particular dangers for man and environment:**

· **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.

· **Classification according to (d)(1)(ii) of § 1910.1200**

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

* 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

14808-60-7	Quartz (SiO ₂)	80–100%
------------	----------------------------	---------

· **Non-hazardous components**

1634-04-4	tert-butyl methyl ether	≥0.5–≤1%
51-36-5	3,5-dichlorobenzoic acid	≥0–≤0.1%
75-99-0	2,2-dichloropropionic acid	≥0–≤0.1%
87-86-5	pentachlorophenol	≥0–<0.1%
88-85-7	dinoseb	≥0–<0.1%
93-65-2	2-(4-chloro-2-methylphenoxy)propionic acid	≥0–<0.1%
93-72-1	fenoprop	≥0–≤0.1%
93-76-5	2,4,5-T (ISO)	≥0–<0.1%
94-74-6	MCPA (ISO)	≥0–≤0.1%

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 2)

94-75-7	2,4-D (ISO)	$\geq 0 - < 0.1\%$
94-80-4	butyl 2,4-dichlorophenoxyacetate	$\geq 0 - \leq 0.1\%$
94-82-6	2,4-DB (ISO)	$\geq 0 - \leq 0.1\%$
100-02-7	4-nitrophenol	$\geq 0 - \leq 0.1\%$
120-36-5	dichlorprop (ISO)	$\geq 0 - \leq 0.1\%$
133-90-4	chlорamben	$\geq 0 - \leq 0.1\%$
709-98-8	propanil (ISO)	$\geq 0 - \leq 0.1\%$
1918-00-9	dicamba(ISO)	$\geq 0 - \leq 0.1\%$
1918-02-1	4-amino-3,5,6-trichloropyridine-2-carboxylic acid	$\geq 0 - \leq 0.1\%$
2136-79-0	1,4-benzenedicarboxylic acid, 2,3,5,6-tetrachloro-	$\geq 0 - \leq 0.1\%$
25057-89-0	bentazone (ISO)	$\geq 0 - < 0.1\%$
50594-66-6	5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoic acid	$\geq 0 - \leq 0.1\%$

4 First-aid measures

· Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **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.

· **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** During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

* 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· **Protective Action Criteria for Chemicals**

· PAC-1:

14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³
1634-04-4	tert-butyl methyl ether	50 ppm
87-86-5	pentachlorophenol	1 mg/m ³

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 3)

88-85-7	dinoseb	0.41 mg/m ³
93-72-1	fenoprop	0.82 mg/m ³
93-76-5	2,4,5-T (ISO)	30 mg/m ³
94-75-7	2,4-D (ISO)	30 mg/m ³
100-02-7	4-nitrophenol	0.51 mg/m ³
133-90-4	chloramben	11 mg/m ³

· **PAC-2:**

14808-60-7	Quartz (SiO ₂)	8.3 mg/m ³
1634-04-4	tert-butyl methyl ether	570 ppm
87-86-5	pentachlorophenol	15 mg/m ³
88-85-7	dinoseb	4.5 mg/m ³
93-72-1	fenoprop	9 mg/m ³
93-76-5	2,4,5-T (ISO)	42 mg/m ³
94-75-7	2,4-D (ISO)	94 mg/m ³
100-02-7	4-nitrophenol	5.6 mg/m ³
133-90-4	chloramben	120 mg/m ³

· **PAC-3:**

14808-60-7	Quartz (SiO ₂)	50 mg/m ³
1634-04-4	tert-butyl methyl ether	5300 ppm
87-86-5	pentachlorophenol	150 mg/m ³
88-85-7	dinoseb	5.4 mg/m ³
93-72-1	fenoprop	130 mg/m ³
93-76-5	2,4,5-T (ISO)	250 mg/m ³
94-75-7	2,4-D (ISO)	500 mg/m ³
100-02-7	4-nitrophenol	34 mg/m ³
133-90-4	chloramben	690 mg/m ³

· **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

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· **Information about protection against explosions and fires:** Keep respiratory protective device available.· **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.

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 4)

* 8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

14808-60-7 Quartz (SiO₂)

PEL	Long-term value: 0.05 * mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2
REL	Long-term value: 0.05 * mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025 * mg/m ³ *respirable particulate matter, A2

· **Additional information:** The lists that were valid during the creation were used as basis.

· Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· 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.

Store protective clothing separately.

· 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:



Tightly sealed goggles

· Body protection: Protective work clothing

* 9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Physical state

Solid

(Contd. on page 6)

— US —

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 5)

· Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.
· Melting point/Melting range:	1,713 °C (35.113 °F)
· Boiling point/Boiling range:	2,230 °C (3630 °F)
· Flammability:	Not determined.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· pH-value:	Not applicable.
· Viscosity:	
· Kinematic:	Not applicable.
· Dynamic:	Not applicable.
· Solubility in / Miscibility with	
· Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Vapor pressure at 1732 °C (3,149.6 °F):	13.5 hPa (10.1 mm Hg)
· Vapor pressure:	
· Density at 20 °C (68 °F):	2.2–2.6 g/cm ³ (18.359–21.697 lbs/gal)
· Relative density	Not determined.
· Bulk density:	1,400 kg/m ³
· Vapor density	Not applicable.
· Particle characteristics	Not determined.
· Other information	
· Appearance:	
· Form:	Solid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	0.9–1 %
· VOC content:	0.94–0.99 %
· Solids content:	99 %
· Change in condition	
· Evaporation rate	Not applicable.

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 7)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 6)

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

· IARC (International Agency for Research on Cancer)		
14808-60-7	Quartz (SiO ₂)	1
1634-04-4	tert-butyl methyl ether	3
87-86-5	pentachlorophenol	1
93-76-5	2,4,5-T (ISO)	2B
94-75-7	2,4-D (ISO)	2B
1918-02-1	4-amino-3,5,6-trichloropyridine-2-carboxylic acid	3
· NTP (National Toxicology Program)		
14808-60-7	Quartz (SiO ₂)	K
87-86-5	pentachlorophenol	R
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		
· Alternative sources for toxicological information No non-standard sources for toxicological information where used.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **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.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 8)

— US —

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 7)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
· Special precautions for user	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):	
88-85-7	dinoseb
· Section 313 (Specific toxic chemical listings):	
1634-04-4	tert-butyl methyl ether
87-86-5	pentachlorophenol
88-85-7	dinoseb
93-65-2	2-(4-chloro-2-methylphenoxy)propionic acid
94-74-6	MCPA (ISO)
94-75-7	2,4-D (ISO)
94-80-4	butyl 2,4-dichlorophenoxyacetate
94-82-6	2,4-DB (ISO)
100-02-7	4-nitrophenol
120-36-5	dichlorprop (ISO)
133-90-4	chlaramben
709-98-8	propanil (ISO)
1918-00-9	dicamba(ISO)
1918-02-1	4-amino-3,5,6-trichloropyridine-2-carboxylic acid

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 8)

· TSCA (Toxic Substances Control Act):		
14808-60-7	Quartz (SiO ₂)	ACTIVE
1634-04-4	tert-butyl methyl ether	ACTIVE
51-36-5	3,5-dichlorobenzoic acid	ACTIVE
75-99-0	2,2-dichloropropionic acid	ACTIVE
87-86-5	pentachlorophenol	ACTIVE
88-85-7	dinoseb	ACTIVE
93-65-2	2-(4-chloro-2-methylphenoxy)propionic acid	ACTIVE
93-76-5	2,4,5-T (ISO)	ACTIVE
94-74-6	MCPA (ISO)	ACTIVE
94-75-7	2,4-D (ISO)	ACTIVE
100-02-7	4-nitrophenol	ACTIVE
120-36-5	dichlorprop (ISO)	ACTIVE
133-90-4	chlорamben	ACTIVE
1918-02-1	4-amino-3,5,6-trichloropyridine-2-carboxylic acid	ACTIVE
25057-89-0	bentazone (ISO)	ACTIVE
50594-66-6	5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoic acid	ACTIVE

· Hazardous Air Pollutants		
1634-04-4	tert-butyl methyl ether	
87-86-5	pentachlorophenol	
94-75-7	2,4-D (ISO)	
100-02-7	4-nitrophenol	
133-90-4	chlорamben	

· Proposition 65

· Chemicals known to cause cancer:		
14808-60-7	Quartz (SiO ₂)	
87-86-5	pentachlorophenol	

· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		

· Chemicals known to cause reproductive toxicity for males:		
88-85-7	dinoseb	
94-82-6	2,4-DB (ISO)	

· Chemicals known to cause developmental toxicity:		
88-85-7	dinoseb	

· Carcinogenic categories

· EPA (Environmental Protection Agency)		
87-86-5	pentachlorophenol	L
88-85-7	dinoseb	D
93-72-1	fenoprop	D
25057-89-0	bentazone (ISO)	E, NL

· TLV (Threshold Limit Value)		
14808-60-7	Quartz (SiO ₂)	A2

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 9)

1634-04-4	tert-butyl methyl ether	A3
75-99-0	2,2-dichloropropionic acid	A4
87-86-5	pentachlorophenol	A3
93-76-5	2,4,5-T (ISO)	A4
94-75-7	2,4-D (ISO)	A4
1918-02-1	4-amino-3,5,6-trichloropyridine-2-carboxylic acid	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
14808-60-7	Quartz (SiO ₂)	

- **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:**
Quartz (SiO₂)
- **Hazard statements**
Suspected of causing genetic defects.
May cause cancer.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Specific treatment (see on this label).
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
- **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:** *- Department Technical Manager*
- **Date of previous version** *04/22/2024*

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

Trade name: SPEO-006, SQCO-006

(Contd. of page 10)

· **Date of preparation** 06/30/2026· **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)

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

Germ cell mutagenicity 2: Germ cell mutagenicity – Category 2

Carcinogenicity 1A: Carcinogenicity – Category 1A

Specific target organ toxicity (single exposure) 1: Specific target organ toxicity (single exposure) – Category 1

Specific target organ toxicity (repeated exposure) 1: Specific target organ toxicity (repeated exposure) – Category 1

· *** Data compared to the previous version altered.**