

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 06/30/2026

Reviewed on 06/30/2026

1 Identification

- **Product identifier**
- **Trade name:** SPEI-003, SQCI-003
- **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

Sensitization - respiratory 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity 1B

H340 May cause genetic defects.

Carcinogenicity 1A

H350 May cause cancer.

Reproductive toxicity 1B

H360 May damage fertility or the unborn child.

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.



GHS07

Sensitization - skin 1

H317 May cause an allergic skin reaction.

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



GHS08

- **Signal word** Danger

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· **Hazard-determining components of labeling:**

Quartz (SiO₂)
potassium dichromate

· **Hazard statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
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.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
[In case of inadequate ventilation] wear respiratory protection.
If on skin: Wash with plenty of water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a poison center/doctor.
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)**

HEALTH	0	Health = *0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **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.

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· **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%
7778-50-9	potassium dichromate	0.1%

* 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

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 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.

· **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
7778-50-9	potassium dichromate	0.42 mg/m ³

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· PAC-2:		
14808-60-7	Quartz (SiO ₂)	8.3 mg/m ³
7778-50-9	potassium dichromate	0.28 ppm
· PAC-3:		
14808-60-7	Quartz (SiO ₂)	50 mg/m ³
7778-50-9	potassium dichromate	1.8 ppm

· **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.

* 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/m³
 *resp. dust; 30mg/m³/%SiO₂+2

REL Long-term value: 0.05* mg/m³
 *respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³
 *respirable particulate matter, A2

7778-50-9 potassium dichromate

PEL Long-term value: 0.005* mg/m³
 Ceiling limit value: 0.1** mg/m³
 *as Cr(VI) **as CrO₃; see 29 CFR 1910.1026

REL Long-term value: 0.0002 mg/m³
 as Cr; See Pocket Guide Apps. A and C

TLV Short-term value: 0.0005 mg/m³
 Long-term value: 0.0002 mg/m³
 as Cr(VI); A1; inhalable, Skin; BEI, DSEN, RSEN

· **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.

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- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

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

- **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.

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· 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):	2.156–2.65314 g/cm ³ (17.99182–22.14045 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:	
· VOC content:	0.00 %
· Solids content:	98–100 %
· 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.

*11 Toxicological information

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

· LD/LC50 values that are relevant for classification:
7778-50-9 potassium dichromate
Oral LD50 190 mg/kg (mouse)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

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The product can cause inheritable damage.

· **Interactive effects** No interactive effects between components are known.

· **Carcinogenic categories**

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

All components have the value 1.

· **NTP (National Toxicology Program)**

All components have the value K.

· **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 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

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.

· **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

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· 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):		
None of the ingredients is listed.		
· Section 313 (Specific toxic chemical listings):		
7778-50-9	potassium dichromate	
· TSCA (Toxic Substances Control Act):		
All components have the value ACTIVE.		
· Hazardous Air Pollutants		
7778-50-9	potassium dichromate	
· Proposition 65		
· Chemicals known to cause cancer:		
All ingredients are listed.		
· Chemicals known to cause reproductive toxicity for females:		
7778-50-9	potassium dichromate	
· Chemicals known to cause reproductive toxicity for males:		
7778-50-9	potassium dichromate	
· Chemicals known to cause developmental toxicity:		
7778-50-9	potassium dichromate	
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
7778-50-9	potassium dichromate	A(inh), D(oral), K/L(inh), CBD(oral)
· TLV (Threshold Limit Value)		
14808-60-7	Quartz (SiO2)	A2
7778-50-9	potassium dichromate	A1
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
All ingredients are listed.		
· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).		

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· Hazard pictograms



GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Quartz (SiO₂)

potassium dichromate

· Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

[In case of inadequate ventilation] wear respiratory protection.

If on skin: Wash with plenty of water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a poison center/doctor.

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 04/17/2024

· Date of preparation 06/30/2026

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· **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
 Sensitization - respiratory 1: Respiratory sensitisation – Category 1
 Sensitization - skin 1: Skin sensitisation – Category 1
 Germ cell mutagenicity 1B: Germ cell mutagenicity – Category 1B
 Carcinogenicity 1A: Carcinogenicity – Category 1A
 Reproductive toxicity 1B: Reproductive toxicity – Category 1B
 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.**

— US —