

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-015, SQCI-015
- **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.

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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		
7601-54-9	trisodium phosphate	≥0–≤0.1%
7631-99-4	Sodium nitrate	≥0–≤0.1%
7632-00-0	sodium nitrite	≥0–≤0.1%
7647-14-5	sodium chloride	≥0–≤0.1%
7647-15-6	sodium bromide	≥0–≤0.1%
7681-49-4	sodium fluoride	≥0–≤0.1%
7778-80-5	potassium sulphate, containing in the drystate more than 52 per cent by weight of K ₂ O	≥0–≤0.1%

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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
7631-99-4	Sodium nitrate	3.8 mg/m ³
7632-00-0	sodium nitrite	6.4 mg/m ³
7647-15-6	sodium bromide	12 mg/m ³
7681-49-4	sodium fluoride	0.34 mg/m ³
7778-80-5	potassium sulphate, containing in the drystate more than 52 per cent by weight of K ₂ O	20 mg/m ³

· PAC-2:

14808-60-7	Quartz (SiO ₂)	8.3 mg/m ³
7631-99-4	Sodium nitrate	42 mg/m ³
7632-00-0	sodium nitrite	8.4 mg/m ³
7647-15-6	sodium bromide	130 mg/m ³
7681-49-4	sodium fluoride	3.8 mg/m ³
7778-80-5	potassium sulphate, containing in the drystate more than 52 per cent by weight of K ₂ O	220 mg/m ³

· PAC-3:

14808-60-7	Quartz (SiO ₂)	50 mg/m ³
7631-99-4	Sodium nitrate	250 mg/m ³
7632-00-0	sodium nitrite	50 mg/m ³

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7647-15-6	sodium bromide	830 mg/m ³
7681-49-4	sodium fluoride	44 mg/m ³
7778-80-5	potassium sulphate, containing in the drystate more than 52 per cent by weight of K ₂ O	1,300 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.

* 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

· **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

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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.

· **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):**

2.14314–2.66341 g/cm³ (17.8845–22.22616 lbs/gal)

· **Relative density**

Not determined.

· **Bulk density:**

1,400 kg/m³

· **Vapor density**

Not applicable.

· **Particle characteristics**

Not determined.

· **Other information**

· **Appearance:**

· **Form:**

Solid

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- **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 %
- **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:**
- **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
7681-49-4	sodium fluoride	3

· NTP (National Toxicology Program)

14808-60-7	Quartz (SiO ₂)	K
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· 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.

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- **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.

- **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 MARPOL73/78 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):	
7601-54-9	trisodium phosphate
· Section 313 (Specific toxic chemical listings):	
7601-54-9	trisodium phosphate
7632-00-0	sodium nitrite

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· TSCA (Toxic Substances Control Act):		
All components have the value ACTIVE.		
· Hazardous Air Pollutants		
None of the ingredients is listed.		
· Proposition 65		
· Chemicals known to cause cancer:		
14808-60-7	Quartz (SiO ₂)	
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value)		
14808-60-7	Quartz (SiO ₂)	A2
7681-49-4	sodium fluoride	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.

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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** 04/19/2024

· **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.**