

## 1 Identification

- **Product identifier**
- **Trade name:** SQCI-001
- **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**



GHS03 Flame over circle

Oxidizing Solids 2

H272 May intensify fire; oxidizer.



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.

Toxic to Reproduction 1A

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.



GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



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**



GHS03



GHS05



GHS08

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· **Signal word** Danger· **Hazard-determining components of labeling:**Quartz (SiO<sub>2</sub>)

diiron trioxide

boric acid

Sodium nitrate

Beryllium acetate, basic

potassium dichromate

· **Hazard statements**

May intensify fire; oxidizer.

Causes serious eye damage.

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.

Keep away from heat.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles.

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.

[In case of inadequate ventilation] wear respiratory protection.

If on skin: Wash with plenty of water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

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

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

Wash contaminated clothing before reuse.

In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

· **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:**

14808-60-7	Quartz (SiO <sub>2</sub> )	>65.0%
1309-37-1	diiron trioxide	≥3- <7.15%
7631-99-4	Sodium nitrate	≥1- <5.55%
1344-28-1	aluminium oxide	0-4.73%
1309-48-4	magnesium oxide	0-4%
10043-35-3	boric acid	≥0.1- ≤0.46%
19049-40-2	Beryllium acetate, basic	≥0.1- <0.46%
7439-96-5	manganese	≥0.1- <0.2%
7778-50-9	potassium dichromate	≥0.1- <0.12%
10124-36-4	cadmium sulphate	≥0.01- <0.07%

· **Non-hazardous components**

10035-04-8	calcium chloride, dihydrate	0-9.18%
7447-40-7	potassium chloride	0-4.77%
7727-43-7	barium sulphate, natural	0-0.17%
1314-13-2	zinc oxide	0-0.13%
142-71-2	copper di(acetate)	0-0.12%
1314-62-1	divanadium pentaoxide	0-0.08%
1633-05-2	strontium carbonate	0-0.07%
10099-74-8	lead dinitrate	0-0.07%
1327-53-3	diarsenic trioxide	0-0.06%
10102-45-1	thallium nitrate	0-0.06%
7440-02-0	nickel	0-0.05%
7488-55-3	tin sulfate	0-0.05%
7440-48-4	cobalt	0-0.04%
7439-98-7	molybdenum	0-0.03%
7761-88-8	silver nitrate	0-0.02%
21908-53-2	mercury monoxide	0-0.01%

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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 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. Then consult a doctor.
- **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:** 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.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

14808-60-7	Quartz (SiO <sub>2</sub> )	0.075 mg/m <sup>3</sup>
10035-04-8	calcium chloride, dihydrate	16 mg/m <sup>3</sup>
1309-37-1	diiron trioxide	15 mg/m <sup>3</sup>
7631-99-4	Sodium nitrate	4.1 mg/m <sup>3</sup>
1344-28-1	aluminium oxide	15 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	30 mg/m <sup>3</sup>
10043-35-3	boric acid	6 mg/m <sup>3</sup>
7439-96-5	manganese	3 mg/m <sup>3</sup>
7727-43-7	barium sulphate, natural	15 mg/m <sup>3</sup>

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1314-13-2	zinc oxide	10 mg/m <sup>3</sup>
142-71-2	copper di(acetate)	8.6 mg/m <sup>3</sup>
7778-50-9	potassium dichromate	0.42 mg/m <sup>3</sup>
1314-62-1	divanadium pentaoxide	0.64 mg/m <sup>3</sup>
1633-05-2	strontium carbonate	71 mg/m <sup>3</sup>
10099-74-8	lead dinitrate	0.24 mg/m <sup>3</sup>
10124-36-4	cadmium sulphate	0.19 mg/m <sup>3</sup>
1327-53-3	diarsenic trioxide	0.27 mg/m <sup>3</sup>
10102-45-1	thallium nitrate	0.078 mg/m <sup>3</sup>
7440-02-0	nickel	4.5 mg/m <sup>3</sup>
7488-55-3	tin sulfate	11 mg/m <sup>3</sup>
7440-48-4	cobalt	0.18 mg/m <sup>3</sup>
7439-98-7	molybdenum	30 mg/m <sup>3</sup>
7761-88-8	silver nitrate	0.047 mg/m <sup>3</sup>
21908-53-2	mercury monoxide	1.5 mg/m <sup>3</sup>

**· PAC-2:**

14808-60-7	Quartz (SiO <sub>2</sub> )	33 mg/m <sup>3</sup>
10035-04-8	calcium chloride, dihydrate	170 mg/m <sup>3</sup>
1309-37-1	diiron trioxide	360 mg/m <sup>3</sup>
7631-99-4	Sodium nitrate	45 mg/m <sup>3</sup>
1344-28-1	aluminium oxide	170 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	120 mg/m <sup>3</sup>
10043-35-3	boric acid	23 mg/m <sup>3</sup>
7439-96-5	manganese	5 mg/m <sup>3</sup>
7727-43-7	barium sulphate, natural	170 mg/m <sup>3</sup>
1314-13-2	zinc oxide	15 mg/m <sup>3</sup>
142-71-2	copper di(acetate)	20 mg/m <sup>3</sup>
7778-50-9	potassium dichromate	7.4 mg/m <sup>3</sup>
1314-62-1	divanadium pentaoxide	7 mg/m <sup>3</sup>
1633-05-2	strontium carbonate	780 mg/m <sup>3</sup>
10099-74-8	lead dinitrate	180 mg/m <sup>3</sup>
10124-36-4	cadmium sulphate	1.4 mg/m <sup>3</sup>
1327-53-3	diarsenic trioxide	3.0 mg/m <sup>3</sup>
10102-45-1	thallium nitrate	4.3 mg/m <sup>3</sup>
7440-02-0	nickel	50 mg/m <sup>3</sup>
7488-55-3	tin sulfate	120 mg/m <sup>3</sup>
7440-48-4	cobalt	2 mg/m <sup>3</sup>
7439-98-7	molybdenum	330 mg/m <sup>3</sup>
7761-88-8	silver nitrate	0.9 mg/m <sup>3</sup>
21908-53-2	mercury monoxide	16 mg/m <sup>3</sup>

**· PAC-3:**

14808-60-7	Quartz (SiO <sub>2</sub> )	200 mg/m <sup>3</sup>
10035-04-8	calcium chloride, dihydrate	1,100 mg/m <sup>3</sup>

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1309-37-1	diiron trioxide	2,200 mg/m <sup>3</sup>
7631-99-4	Sodium nitrate	270 mg/m <sup>3</sup>
1344-28-1	aluminium oxide	990 mg/m <sup>3</sup>
1309-48-4	magnesium oxide	730 mg/m <sup>3</sup>
10043-35-3	boric acid	830 mg/m <sup>3</sup>
7439-96-5	manganese	1,800 mg/m <sup>3</sup>
7727-43-7	barium sulphate, natural	990 mg/m <sup>3</sup>
1314-13-2	zinc oxide	2,500 mg/m <sup>3</sup>
142-71-2	copper di(acetate)	120 mg/m <sup>3</sup>
7778-50-9	potassium dichromate	44 mg/m <sup>3</sup>
1314-62-1	divanadium pentaoxide	70 mg/m <sup>3</sup>
1633-05-2	strontium carbonate	4,700 mg/m <sup>3</sup>
10099-74-8	lead dinitrate	1,100 mg/m <sup>3</sup>
10124-36-4	cadmium sulphate	8.7 mg/m <sup>3</sup>
1327-53-3	diarsenic trioxide	9.1 mg/m <sup>3</sup>
10102-45-1	thallium nitrate	26 mg/m <sup>3</sup>
7440-02-0	nickel	99 mg/m <sup>3</sup>
7488-55-3	tin sulfate	720 mg/m <sup>3</sup>
7440-48-4	cobalt	20 mg/m <sup>3</sup>
7439-98-7	molybdenum	2,000 mg/m <sup>3</sup>
7761-88-8	silver nitrate	5.4 mg/m <sup>3</sup>
21908-53-2	mercury monoxide	30 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
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

- **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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

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At this time, the other constituents have no known exposure limits.

<b>14808-60-7 Quartz (SiO<sub>2</sub>)</b>	
PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *respirable particulate matter, A2
<b>1309-37-1 diiron trioxide</b>	
PEL	Long-term value: 10* mg/m <sup>3</sup> *Fume
REL	Long-term value: 5 mg/m <sup>3</sup> Dust & fume, as Fe
TLV	Long-term value: 5* mg/m <sup>3</sup> *as respirable fraction, A4
<b>1344-28-1 aluminium oxide</b>	
PEL	Long-term value: 15*; 5** mg/m <sup>3</sup> *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m <sup>3</sup> as Al; *as respirable fraction, A4
<b>1309-48-4 magnesium oxide</b>	
PEL	Long-term value: 15* mg/m <sup>3</sup> fume; *total particulate
TLV	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction, A4
<b>10043-35-3 boric acid</b>	
TLV	Short-term value: 6* mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as inhalable fraction, A4
<b>7439-96-5 manganese</b>	
PEL	Ceiling limit value: 5 mg/m <sup>3</sup> as Mn
REL	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup> fume, as Mn
TLV	Long-term value: 0.02* 0.1** mg/m <sup>3</sup> as Mn; A4, *respirable **inhalable fraction
<b>7778-50-9 potassium dichromate</b>	
PEL	Long-term value: 0.005* mg/m <sup>3</sup> Ceiling limit value: 0.1** mg/m <sup>3</sup> *as Cr(VI) **as CrO <sub>3</sub> ; see 29 CFR 1910.1026
REL	Long-term value: 0.0002 mg/m <sup>3</sup> as Cr; See Pocket Guide Apps. A and C
TLV	Short-term value: 0.0005 mg/m <sup>3</sup> Long-term value: 0.0002 mg/m <sup>3</sup> as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN

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<b>10124-36-4 cadmium sulphate</b>	
PEL	Long-term value: 0.005 mg/m <sup>3</sup> as Cd; see 29 CFR 1910.1027
REL	See Pocket Guide App. A
TLV	Long-term value: 0.01 0.002* mg/m <sup>3</sup> as Cd; A2; *respirable fraction; BEI
<b>· Ingredients with biological limit values:</b>	
<b>7778-50-9 potassium dichromate</b>	
BEI	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)
<b>10124-36-4 cadmium sulphate</b>	
BEI	5 µg/g creatinine Medium: urine Time: not critical Parameter: Cadmium (background)
	5 µg/L Medium: blood Time: not critical Parameter: Cadmium (background)

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

· **Exposure controls**

· **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.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

· **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

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· **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

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Solid  
**Color:** According to product specification

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 600–700 °C (1,112–1,292 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.  
**Upper:** Not determined.

· **Vapor pressure at 1732 °C (3,149.6 °F):** 13.5 hPa (10.1 mm Hg)

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

**Water:** Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not applicable.

**Kinematic:** Not applicable.

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· <b>Solvent content:</b>	
<b>VOC content:</b>	0.00 %
<b>Solids content:</b>	>65–93.3 %
· <b>Other information</b>	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.

## 11 Toxicological information

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

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>1309-37-1 diiron trioxide</b>		
Oral	LD50	>5,000 mg/kg (rat)
<b>7631-99-4 Sodium nitrate</b>		
Oral	LD50	3,236 mg/kg (rat)
<b>10043-35-3 boric acid</b>		
Oral	LD50	2,660 mg/kg (rat)
<b>7439-96-5 manganese</b>		
Oral	LD50	9,000 mg/kg (rat)
<b>7778-50-9 potassium dichromate</b>		
Oral	LD50	190 mg/kg (mouse)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **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  
The product can cause inheritable damage.
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	1
1309-37-1	diiron trioxide	3

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19049-40-2	Beryllium acetate, basic	I
7778-50-9	potassium dichromate	I
1314-62-1	divanadium pentaoxide	2B
10099-74-8	lead dinitrate	2A
10124-36-4	cadmium sulphate	I
1327-53-3	diarsenic trioxide	I
7440-02-0	nickel	2B
7440-48-4	cobalt	2B
21908-53-2	mercury monoxide	3
<b>· NTP (National Toxicology Program)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	K
19049-40-2	Beryllium acetate, basic	K
7778-50-9	potassium dichromate	K
10099-74-8	lead dinitrate	R
10124-36-4	cadmium sulphate	K
1327-53-3	diarsenic trioxide	K
7440-02-0	nickel	R
7440-48-4	cobalt	R
<b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
10124-36-4	cadmium sulphate	
1327-53-3	diarsenic trioxide	

### 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 3 (Self-assessment): extremely hazardous for water  
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
 Danger to drinking water if even extremely small quantities leak into the ground.
- **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:**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

## 14 Transport information

· <b>UN-Number</b> · <b>DOT, IMDG, IATA</b>	UN1479
· <b>UN proper shipping name</b> · <b>DOT, IATA</b> · <b>IMDG</b>	Oxidizing solid, n.o.s. OXIDIZING SOLID, N.O.S.
· <b>Transport hazard class(es)</b> · <b>DOT</b>	
	
· <b>Class</b> · <b>Label</b>	5.1 Oxidizing substances 5.1
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	5.1 Oxidizing substances 5.1
· <b>Packing group</b> · <b>DOT, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> 50 · <b>EMS Number:</b> · <b>Stowage Category</b> · <b>Segregation Code</b>	Warning: Oxidizing substances F-A,S-Q B SG38 Stow "separated from" SGG2-ammonium compounds. SG49 Stow "separated from" SGG6-cyanides SG60 Stow "separated from" SGG16-peroxides SG61 Stow "separated from" SGG15-powdered metals
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b> · <b>DOT</b> · <b>Quantity limitations</b>	On passenger aircraft/rail: 5 kg On cargo aircraft only: 25 kg

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<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	UN 1479 OXIDIZING SOLID, N.O.S. 5.1, II

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· <b>Section 355 (extremely hazardous substances):</b>		
1314-62-1	divanadium pentaoxide	
1327-53-3	diarsenic trioxide	
21908-53-2	mercury monoxide	
· <b>Section 313 (Specific toxic chemical listings):</b>		
1344-28-1	aluminium oxide	
19049-40-2	Beryllium acetate, basic	
7439-96-5	manganese	
7727-43-7	barium sulphate, natural	
1314-13-2	zinc oxide	
142-71-2	copper di(acetate)	
7778-50-9	potassium dichromate	
1314-62-1	divanadium pentaoxide	
10099-74-8	lead dinitrate	
10124-36-4	cadmium sulphate	
1327-53-3	diarsenic trioxide	
10102-45-1	thallium nitrate	
7440-02-0	nickel	
7440-48-4	cobalt	
7761-88-8	silver nitrate	
21908-53-2	mercury monoxide	
· <b>TSCA (Toxic Substances Control Act):</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	ACTIVE
1309-37-1	diiron trioxide	ACTIVE
7631-99-4	Sodium nitrate	ACTIVE
7447-40-7	potassium chloride	ACTIVE
1344-28-1	aluminium oxide	ACTIVE
1309-48-4	magnesium oxide	ACTIVE
10043-35-3	boric acid	ACTIVE
7439-96-5	manganese	ACTIVE
7727-43-7	barium sulphate, natural	ACTIVE
1314-13-2	zinc oxide	ACTIVE

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142-71-2	copper di(acetate)	ACTIVE
7778-50-9	potassium dichromate	ACTIVE
1314-62-1	divanadium pentaoxide	ACTIVE
1633-05-2	strontium carbonate	ACTIVE
10099-74-8	lead dinitrate	ACTIVE
10124-36-4	cadmium sulphate	ACTIVE
1327-53-3	diarsenic trioxide	ACTIVE
10102-45-1	thallium nitrate	ACTIVE
7440-02-0	nickel	ACTIVE
7488-55-3	tin sulfate	ACTIVE
7440-48-4	cobalt	ACTIVE
7439-98-7	molybdenum	ACTIVE
7761-88-8	silver nitrate	ACTIVE
21908-53-2	mercury monoxide	ACTIVE

**· Hazardous Air Pollutants**

7439-96-5	manganese
7778-50-9	potassium dichromate
10099-74-8	lead dinitrate
10124-36-4	cadmium sulphate
1327-53-3	diarsenic trioxide
7440-48-4	cobalt
21908-53-2	mercury monoxide

**· Proposition 65****· Chemicals known to cause cancer:**

14808-60-7	Quartz (SiO <sub>2</sub> )
19049-40-2	Beryllium acetate, basic
7778-50-9	potassium dichromate
1314-62-1	divanadium pentaoxide
10099-74-8	lead dinitrate
10124-36-4	cadmium sulphate
1327-53-3	diarsenic trioxide
7440-02-0	nickel
7440-48-4	cobalt

**· Chemicals known to cause reproductive toxicity for females:**

7778-50-9	potassium dichromate
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**· Chemicals known to cause reproductive toxicity for males:**

7778-50-9	potassium dichromate
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**· Chemicals known to cause developmental toxicity:**

7778-50-9	potassium dichromate
1327-53-3	diarsenic trioxide
21908-53-2	mercury monoxide

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· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

10043-35-3	boric acid	I (oral)
7439-96-5	manganese	D
7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)
1314-13-2	zinc oxide	D, I, II
7778-50-9	potassium dichromate	A(inh), D(oral), K/L(inh), CBD(oral)
10099-74-8	lead dinitrate	B2
10124-36-4	cadmium sulphate	B1
1327-53-3	diarsenic trioxide	A
10102-45-1	thallium nitrate	II
21908-53-2	mercury monoxide	D

· **TLV (Threshold Limit Value)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
1309-37-1	diiron trioxide	A4
1344-28-1	aluminium oxide	A4
1309-48-4	magnesium oxide	A4
10043-35-3	boric acid	A4
7778-50-9	potassium dichromate	A1
1314-62-1	divanadium pentaoxide	A3
10099-74-8	lead dinitrate	A3
10124-36-4	cadmium sulphate	A2
1327-53-3	diarsenic trioxide	A1
7440-02-0	nickel	A5
7440-48-4	cobalt	A3
7439-98-7	molybdenum	A3
21908-53-2	mercury monoxide	A4

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

14808-60-7	Quartz (SiO <sub>2</sub> )
19049-40-2	Beryllium acetate, basic
7778-50-9	potassium dichromate
10124-36-4	cadmium sulphate
1327-53-3	diarsenic trioxide
7440-02-0	nickel

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

GHS03   GHS05   GHS08

· **Signal word** Danger· **Hazard-determining components of labeling:**Quartz (SiO<sub>2</sub>)

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*diiron trioxide**boric acid**Sodium nitrate**Beryllium acetate, basic**potassium dichromate***· Hazard statements***May intensify fire; oxidizer.**Causes serious eye damage.**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.**Keep away from heat.**Keep/Store away from clothing/combustible materials.**Take any precaution to avoid mixing with combustibles.**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.**[In case of inadequate ventilation] wear respiratory protection.**If on skin: Wash with plenty of water.**If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Immediately call a poison center/doctor.**IF exposed or concerned: Get medical advice/attention.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**If skin irritation or rash occurs: Get medical advice/attention.**If experiencing respiratory symptoms: Call a poison center/doctor.**Wash contaminated clothing before reuse.**In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.**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.*

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- **Contact:** - Department Technical Manager
- **Date of preparation / last revision** 04/17/2024
- **Abbreviations and acronyms:**
  - 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
  - BEI: Biological Exposure Limit
  - Oxidizing Solids 2: Oxidizing solids – Category 2
  - Eye Damage 1: Serious eye damage/eye irritation – Category 1
  - 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
  - Toxic to Reproduction 1A: Reproductive toxicity – 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