

### Safety Data Sheet acc. to OSHA HCS (HazCom 2012)

Printing date 09/28/2017

Reviewed on 09/28/2017

## 1 Identification

- **Product identifier**
- **Trade name:** **Silica No. 1**
- **Catalogue number:** 00513131, (4)513130, (4)513131, 513133(0), (4)513130BT, (4)513131BT, 00513139(BT)
- **Application of the substance / the mixture:** Reagent for water analysis
- **Manufacturer/Supplier:**  
Tintometer Inc.  
6456 Parkland Drive  
Sarasota, FL 34243  
USA  
phone: (941) 756-6410  
fax: (941) 727-9654  
www.lovibond.us  
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

## \* 2 Hazard(s) identification

- **Classification of the substance or mixture**



Skin Irrit. 2            H315 Causes skin irritation.  
Eye Irrit. 2A           H319 Causes serious eye irritation.  
Aquatic Chronic 3    H412 Harmful to aquatic life with long lasting effects.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Hazard Communication Standard (HCS).
- **Hazard pictograms**



- **Signal word** Warning
- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P273                    Avoid release to the environment.  
P280                    Wear protective gloves/protective clothing/eye protection.  
P302+P352            If on skin: Wash with plenty of water.  
P305+P351+P338    If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
P313                    Get medical advice/attention.
- **Other hazards** No further relevant information available.

## \* 3 Composition/information on ingredients

- **Chemical characterization:** **Mixtures**
- **Description:** Mixture of organic and inorganic compounds

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### Composition and Information on Ingredients:

Percent ranges are used due to the confidential product information.

CAS: 5329-14-6 EINECS: 226-218-8 Index number: 016-026-00-0 RTECS: WO 5950000	sulfamic acid ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 3, H412	30–40%
CAS: 7631-95-0 EINECS: 231-551-7 RTECS: QA5075000	Sodium molybdate, anhydrous ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	10–20%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## 4 First-aid measures

### Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately rinse with plenty of water.  
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes (at least 15 min) under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink 1-2 glasses of water.  
Do not induce vomiting.  
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed**  
irritations  
coughing  
breathing difficulty  
sickness  
vomiting  
pain
- **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**  
The product is not combustible.  
Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
nitrous gases  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides (SO<sub>x</sub>)  
Sodium oxide
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Ambient fire may liberate hazardous vapours.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Avoid formation of dust.

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- **Advice for emergency responders:** Protective equipment: see section 8
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
- **Advice on safe handling:**  
Prevent formation of aerosols.  
No special precautions are necessary if used correctly.
- **Hygiene measures:**  
Avoid contact with the skin.  
Avoid contact with the eyes.  
Take off immediately all contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not eat, drink or smoke when using this product.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
Do not store together with alkalis (caustic solutions).  
store away from water
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Protect from exposure to the light.  
Store in dry conditions.  
Protect from humidity and water.
- **Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)
- **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:**

**CAS: 7631-95-0 Sodium molybdate, anhydrous**

PEL (USA)	Long-term value: 5 mg/m <sup>3</sup> as Mo
TLV (USA)	Long-term value: 0.5 mg/m <sup>3</sup> as Mo; respirable fraction
EL (Canada)	Long-term value: 0.5 mg/m <sup>3</sup> as Mo; respirable

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Engineering measures:**  
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.  
See item 7.
- **Personal protective equipment:**
- **Breathing equipment:** Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Combination filter B-P2
- **Protection of hands:**  
Protective gloves

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Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

- **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mm

- **Penetration time of glove material**

Value for the permeation: Level  $\leq 1$  (10 min)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment:**

Do not allow product to reach sewage system or any water course.

## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>Appearance:</b>	
Form / Physical state:	Tablets
Color:	White
· <b>Odor:</b> Odorless	
· <b>Odor threshold:</b> Not applicable.	
· <b>pH-value (10.5 g/l) at 20 °C (68 °F):</b> 1,6	
· <b>Melting point/freezing point:</b> Not determined.	
· <b>Initial boiling point and boiling range:</b> Not determined.	
· <b>Flash point:</b> Not applicable.	
· <b>Flammability (solid, gas):</b> The product is not combustible.	
· <b>Decomposition temperature:</b> Not determined.	
· <b>Auto-ignition temperature:</b> Product is not self-igniting.	
· <b>Danger of explosion:</b> As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.	
· <b>Flammability or explosive limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· <b>Oxidizing properties:</b> none	
· <b>Vapor Pressure:</b> Not applicable.	
· <b>Density at 20 °C (68 °F):</b> 2 g/cm <sup>3</sup> (16.69 lbs/gal)	
· <b>Relative density:</b> Not determined.	
· <b>Vapor density:</b> Not applicable.	
· <b>Evaporation rate:</b> Not applicable.	
· <b>Solubility(ies)</b>	
Water:	Soluble.
· <b>Partition coefficient (n-octanol/water):</b> Not applicable.	
· <b>Viscosity:</b> Not applicable.	
· <b>Solvent content:</b>	
Organic solvents:	0,0 %
Solids content:	100,0 %
· <b>Other information</b> No further relevant information available.	

## 10 Stability and reactivity

- **Reactivity** Dust can combine with air to form an explosive mixture.
- **Chemical stability** Stable at ambient temperature (room temperature).

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- **Possibility of hazardous reactions**

Reacts with water.  
 Aqueous solution reacts acidic.  
 Aqueous solution reacts with metals.  
 Forms hydrogen in aqueous solution with metals (Danger of explosion!).  
 Reacts with acids, alkalis and oxidizing agents.  
 Reacts with halogenated compounds.  
 Hydrogen is formed in the presence of aluminum or zinc.  
 Violent reactions possible with:

nitrates  
 chlorine

- **Conditions to avoid** Strong heating (decomposition)

- **Incompatible materials:** metals

- **Hazardous decomposition products:** see section 5

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

**CAS: 5329-14-6 sulfamic acid**

Oral	LD50	3160 mg/kg (rat) (GESTIS)
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**CAS: 7631-95-0 Sodium molybdate, anhydrous**

Oral	LD50	4233 mg/kg (rat) (OECD 401) (Registrant, ECHA)
Dermal	LD50.	>2000 mg/kg (rat) (OECD 402) (Registrant, ECHA: limit test, no deaths at this concentration)
Inhalative	LC50.	>1.93 mg/l/4h (rat) (OECD 403, Aerosol (dust)) (Registrant, ECHA: no deaths at this concentration)

- **Primary irritant effect:**

- **on the skin:** Causes skin irritation.

- **on the eye:** Causes serious eye irritation.

- **Information on components:**

**CAS: 5329-14-6 sulfamic acid**

Irritation of skin	OECD 404	(rabbit: irritation)
Irritation of eyes	OECD 405	(rabbit: irritation)

- **Sensitization:** Based on available data, the classification criteria are not met.

- **Carcinogenic categories**

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

CAS: 999-99-9	one or more ingredient(s) Group 3: Not classifiable as to carcinogenicity to humans
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Other information:** see section 8 / 15

- **Synergistic Products:** None

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

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- **Information on components:**

OECD 414: Teratogenicity testing  
 OECD 473: Mutagenicity testing  
 OECD 471, 474, 476, 487: Germ cell mutagenicity testing

<b>CAS: 5329-14-6 sulfamic acid</b>	
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (Salmonella typhimurium)
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test)
OECD 487	(negative) (In Vitro Mammalian Cell Micronucleus Test)

- **Additional toxicological information:**

In case of an acute molybdenum(VI) intoxication: diarrhoea, anaemia, fatigue, loss of appetite.  
 The aerosol is corrosive to the eyes, the skin and the respiratory tract. Inhalation of aerosols may cause lung oedema.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

<b>CAS: 5329-14-6 sulfamic acid</b>	
LC50	14.2 mg/l/96h (fish) (GESTIS)

- **Bacterial toxicity:**

sulfates toxic &gt; 2.5 g/l

<b>CAS: 5329-14-6 sulfamic acid</b>	
EC10	≥1000 mg/l (Pseudomonas putida) (16h) (IUCLID)

- **Other information:**

Toxic for fish:

Magnesium compounds: 100 - 400 mg/l

molybdenum compounds in general: &gt; 25 mg/l

- **Persistence and degradability** No further relevant information available.

- **Bioaccumulative potential**

Pow = n-octanol/wasser partition coefficient

log Pow &lt; 1 = Does not accumulate in organisms.

<b>CAS: 5329-14-6 sulfamic acid</b>	
log Pow	0.1 (.) (experimental) (Merck)

- **Mobility in soil** No further relevant information available.

- **Other adverse effects**

Harmful effect due to pH shift.

Avoid transfer into the environment.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

- **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>	UN2967
· <b>DOT, IMDG, IATA</b>	

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<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p>Sulfamic acid SULPHAMIC ACID mixture SULPHAMIC ACID</p>
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT</li> </ul>  <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>8 Corrosive substances 8</p>
<ul style="list-style-type: none"> <li>· IMDG, IATA</li> </ul>  <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>8 Corrosive substances 8</p>
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, IMDG, IATA</li> </ul>	<p>III</p>
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> </ul>	<p>Warning: Corrosive substances 80 F-A,S-B Acids A</p>
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· Limited quantity (LQ):</li> <li>· Excepted quantities (EQ)</li> </ul>	<p>5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g</p>
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	<p>5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g</p>

## \*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):

None of the ingredients is listed.

### · TSCA (Toxic Substances Control Act):

All ingredients are listed.

### · Proposition 65

#### · Chemicals known to cause cancer:

None of the ingredients is listed.

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· <b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause developmental toxicity:</b>	
None of the ingredients is listed.	
· <b>New Jersey Right-to-Know List:</b>	
CAS: 5329-14-6	sulfamic acid
· <b>New Jersey Special Hazardous Substance List:</b>	
CAS: 5329-14-6	sulfamic acid
	CO
· <b>Pennsylvania Right-to-Know List:</b>	
None of the ingredients is listed.	
· <b>Pennsylvania Special Hazardous Substance List:</b>	
None of the ingredients is listed.	
· <b>EPA (Environmental Protection Agency)</b>	
None of the ingredients is listed.	
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
None of the ingredients is listed.	
· <b>Information about limitation of use:</b> Employment restrictions concerning young persons must be observed.	
· <b>Chemical safety assessment:</b> 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.

#### · **Relevant phrases**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

· **Date of preparation / last revision** 09/28/2017 / 40

#### · **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development  
 STOT: specific target organ toxicity  
 SE: single exposure  
 RE: repeated exposure  
 EC50: half maximal effective concentration  
 IC50: half maximal inhibitory concentration  
 NOEL or NOEC: No Observed Effect Level or Concentration  
 ACGIH® - American Conference of Governmental Industrial Hygienists  
 •A1 - Confirmed human carcinogen  
 •A2 - Suspected human carcinogen  
 •A3 - Confirmed animal carcinogen with unknown relevance to humans  
 •A4 - Not classifiable as a human carcinogen  
 •A5 - Not suspected as a human carcinogen  
 IARC - International Agency for Research on Cancer  
 •Group 1 - Carcinogenic to humans  
 •Group 2A - Probably carcinogenic to humans  
 •Group 2B - Possibly carcinogenic to humans  
 •Group 3 - Not classifiable as to carcinogenicity to humans  
 •Group 4 - Probably not carcinogenic to humans  
 NTP - National Toxicology Program, U.S. Department of Health and Human Services  
 •Group K - Known to be Human Carcinogens  
 •Group R - Reasonably Anticipated to be Human Carcinogens  
 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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit

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REL: Recommended Exposure Limit  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**Sources**

Data arise from safety data sheets, reference works and literature.  
GESTIS- Stoffdatenbank (Substance Database, Germany)  
ECHA: European CHemicals Agency <http://echa.europa.eu>  
IUCLID (International Uniform Chemical Information Database)

· \* Data compared to the previous version altered.

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US