

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

Printing date 08/07/2024

Reviewed on 08/07/2024

## 1 Identification

- **Product identifier**
- **Trade name: Sulphite Indicator S1**
- **Catalogue number:**  
56Z018698, 56P0186, 56P018610, 56P018620, 56P018640, 56P018690, 56P018697, 56U018610, 56U018620, 56U018640, 56U018690, 56U018697, 56P018671, 56P018672, SDT092
- **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 Irritation 2 H315 Causes skin irritation.  
Eye Irritation 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**  
P280 Wear protective gloves / eye protection.  
P273 Avoid release to the environment.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 If on skin: Wash with plenty of water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.
- **Other hazards** No further relevant information available.

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### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of organic and inorganic compounds
- **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: WO5950000	sulfamic acid ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Aquatic Chronic 3, H412	80–90%
CAS: 9005-25-8 EINECS: 232-679-6	Amylodextrin	5–10%

- **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**  
Irritation and corrosion  
after inhalation:  
mucosal irritations, cough, breathing difficulty  
damage to the affected mucous membranes possible  
after swallowing:  
sickness  
vomiting  
breathing difficulty  
gastric or intestinal disorders  
pain  
cramps
- **Danger:** Danger of pulmonary edema.
- **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 (NOx)  
Sulfur oxides (SOx)
- **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.

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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.
- **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 section 13.
- **Reference to other sections**
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling**
- **Advice on safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of dust.
- **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**
- **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).
- **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:**
  - The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

**CAS: 9005-25-8 Amylodextrin**

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m <sup>3</sup> A4

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EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup> **total dust;***respirable fraction
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> total dust

- **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:**  
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- **Breathing equipment:** Use respiratory protective device against the effects of fume/dust/aerosol.
- **Recommended filter device for short term use:** Combination filter B-P2
- **Protection of hands:**  
Protective gloves  
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  
Use protective goggles that have been tested and approved in accordance with government standards (like NIOSH).
- **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

- **Information on basic physical and chemical properties**
- **Appearance:**
- **Form / Physical state:** Powder
- **Color:** White
- **Odor:** Odorless
- **Odor threshold:** Not applicable.
- **pH-value (10 g/l) at 25°C (77°F):** 1.2 (CAS 5329-14-6)
- **Melting point/freezing point:**  $> 190^{\circ}\text{C}$  ( $> 374^{\circ}\text{F}$ ) (CAS 5329-14-6)
- **Initial boiling point and boiling range:** Not applicable.  
Decomposition
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** The product is not combustible.
- **Auto igniting:** Not applicable (solid).
- **Decomposition temperature:**  $>209^{\circ}\text{C}$  ( $>408.2^{\circ}\text{F}$ ) (CAS 5329-14-6)
- **Auto-ignition temperature:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Flammability or explosive limits:**
- **Lower:** Not applicable.
- **Upper:** Not applicable.
- **Oxidizing properties:** none
- **Vapor Pressure:** Not applicable.
- **Density at 20°C (68°F):** 1.98 g/cm<sup>3</sup> (16.52 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility(ies)**
- **Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not applicable (mixture).

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· <b>Viscosity:</b>	
· <b>Kinematic:</b>	Not applicable (solid).
· <b>Other information</b>	
· <b>Solids content:</b>	100 %
· <b>Information with regard to physical hazard classes</b>	
· <b>Corrosive to metals</b>	Based on available data, the classification criteria are not met.

## 10 Stability and reactivity

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability** Stable at ambient temperature (room temperature).
- **Possibility of hazardous reactions**  
Aqueous solution reacts acidic.  
Forms hydrogen in aqueous solution with metals (Danger of explosion!).  
Aqueous solution reacts with metals.  
Reacts with halogenated compounds.  
Reacts with acids, alkalis and oxidizing agents.  
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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- **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 492	(rabbit: irritation)

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

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

None of the ingredients is listed.

### · 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 (carcinogenicity, 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.

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- **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.
- **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 474	(negative) (mouse, oral)
OECD 487	(negative) (In Vitro Mammalian Cell Micronucleus Test)

· **Additional toxicological information:**

<b>CAS: 5329-14-6 sulfamic acid</b>	
.	(source: GESTIS) Main toxic effects Acute: Irritative through to corrosive effects to the mucous membranes and skin; insufficient information available on systemic effects Chronic: No information available

- **Other information** Other dangerous properties can not be excluded.

## 12 Ecological information

· **Toxicity**

<b>· Aquatic toxicity:</b>	
<b>CAS: 5329-14-6 sulfamic acid</b>	
EC50	71.6 mg/l/48h (Daphnia magna) (OECD 202)
EC50	14.2 mg/l/96h (fish) (GESTIS)
LC50	70.3 mg/l/96h (fathhead minnow) (OECD 203) (Merck)

· **Bacterial toxicity:**

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

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

· **Bioaccumulative potential**

Pow = n-octanol/wasser partition coefficient  
log Pow < 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.

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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

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· DOT, IMDG, IATA</li> </ul>	UN2967
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT</li> <li>· IMDG, IATA</li> </ul>	Sulfamic acid mixture SULPHAMIC ACID mixture
<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>	8 Corrosive substances 8
<ul style="list-style-type: none"> <li>· IMDG, IATA</li> </ul>	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	8 Corrosive substances 8
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, IMDG, IATA</li> </ul>	III
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> </ul>	No
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Hazard identification number (Kemler code):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> </ul>	Warning: Corrosive substances 80 F-A,S-B (SGG1) Acids A
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· DOT</li> <li>· Quantity limitations</li> </ul>	On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

## 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.

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<b>Section 313 (Specific toxic chemical listings):</b>	
None of the ingredients is listed.	
<b>TSCA (Toxic Substances Control Act):</b>	
All components have the value ACTIVE.	
<b>Hazardous Air Pollutants</b>	
None of the ingredients is listed.	
<b>Proposition 65</b>	
<b>Chemicals known to cause cancer:</b>	
None of the ingredients is listed.	
<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>	
CAS: 9005-25-8	Amylodextrin
<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.	

- **Information about limitation of use:** Not required.
- **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.

- **Relevant phrases**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.
- **Version number / date of revision:** 6 / 08/07/2024
- **Abbreviations and acronyms:**  
EC50: effective concentration, 50 percent (in vivo)  
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

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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 &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

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)

IUCLID (International Uniform Chemical Information Database)

ECHA: European Chemicals Agency <http://echa.europa.eu>• \* **Data compared to the previous version altered.**

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