

07/17/2023

### Kit Components

| Product code         | Description                                |
|----------------------|--|
| <b>CAY640-VxxAAH</b> | <b>CA70SI Reagent Set<br/>for silicate</b> |

Components:

|            |                                       |
|------------|---------------------------------------|
| 51508826   | Reagent SI1 for silicate              |
| 51508827   | Reagent SI2 for silicate              |
| 51509864_1 | Reagent SI3, Component 1 for silicate |
| 51509864_2 | Reagent SI3, Component 2 for silicate |

## 1 Identification

### Product identifier

Trade name: **Reagent SI1**

Synonym: *for silicate*

Article number: 51508826

Application of the substance / the mixture *Laboratory chemicals*

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

#### Information department:

Phone: +49 (0)7156 209-10117  
E-Mail: [MSDS.PCC@endress.com](mailto:MSDS.PCC@endress.com)

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Skin Irritation 2

H315 Causes skin irritation.

### Label elements

#### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

#### Hazard pictograms



GHS05 GHS08

Signal word *Danger*

#### Hazard-determining components of labeling:

Sodium hydrogensulfate monohydrate  
molybdic acid  
sulphuric acid

#### Hazard statements

Causes skin irritation.  
Causes serious eye damage.  
May cause damage to organs through prolonged or repeated exposure.

## Trade name: Reagent SI1

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**Precautionary statements**

*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.*

*Specific treatment (see on this label).*

*Take off contaminated clothing and wash it before reuse.*

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

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

Health = 3

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*3

Fire = 0

Reactivity = 0

**Other hazards**

*The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.*

**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: |  |       |
|-----------------------|--|-------|
| CAS: 10034-88-5       | Sodium hydrogensulfate monohydrate   | 5-10% |
|                       | ☠ Eye Damage 1, H318   |       |
| CAS: 7664-93-9        | sulphuric acid   | 2-6%  |
|                       | ☠ Skin Corrosion 1A, H314  |       |
| CAS: 7782-91-4        | molybdic acid  | 2-6%  |
|                       | ☠ Specific Target Organ Toxicity - Repeated Exposure 2, H373; ☠ Specific Target Organ Toxicity - Single Exposure 3, H335 |       |

**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:** In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

*Immediately wash with water and soap and rinse thoroughly.*

*Immediately rinse with water.*

**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.*

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— USA —

## Trade name: Reagent SI1

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**Indication of any immediate medical attention and special treatment needed***No further relevant information available.***5 Fire-fighting measures****Extinguishing media****Suitable extinguishing agents:***CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.***For safety reasons unsuitable extinguishing agents:** *no further information***Special hazards arising from the substance or mixture***During heating or in case of fire poisonous gases are produced.***Advice for firefighters** *No further relevant information available.***Protective equipment:** *Mount 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.**Wear protective clothing.***Environmental precautions:***Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.***Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralizing agent.**Dispose contaminated material as waste according to section 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:**

|                 |                                    |                        |
|-----------------|------------------------------------|------------------------|
| CAS: 10034-88-5 | Sodium hydrogensulfate monohydrate | 0.63 mg/m <sup>3</sup> |
| CAS: 7664-93-9  | sulphuric acid                     | 0.20 mg/m <sup>3</sup> |
| CAS: 7782-91-4  | molybdic acid                      | 2.5 mg/m <sup>3</sup>  |

**PAC-2:**

|                 |                                    |                       |
|-----------------|------------------------------------|-----------------------|
| CAS: 10034-88-5 | Sodium hydrogensulfate monohydrate | 7 mg/m <sup>3</sup>   |
| CAS: 7664-93-9  | sulphuric acid                     | 8.7 mg/m <sup>3</sup> |
| CAS: 7782-91-4  | molybdic acid                      | 28 mg/m <sup>3</sup>  |

**PAC-3:**

|                 |                                    |                       |
|-----------------|------------------------------------|-----------------------|
| CAS: 10034-88-5 | Sodium hydrogensulfate monohydrate | 42 mg/m <sup>3</sup>  |
| CAS: 7664-93-9  | sulphuric acid                     | 160 mg/m <sup>3</sup> |
| CAS: 7782-91-4  | molybdic acid                      | 170 mg/m <sup>3</sup> |

**7 Handling and storage****Precautions for safe handling***Ensure good ventilation/exhaustion at the workplace.**Prevent formation of aerosols.***Information about protection against explosions and fires:***Keep respiratory protective device available.*

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— USA —

## Trade name: Reagent SI1

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**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.***Storage class:** 8 B**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 section 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.**At this time, the remaining constituent has no known exposure limits.*

| <b>CAS: 7664-93-9 sulphuric acid</b> |  |
|--------------------------------------|--|
| PEL                                  | Long-term value: 1 mg/m <sup>3</sup>                                     |
| REL                                  | Long-term value: 1 mg/m <sup>3</sup>                                     |
| TLV                                  | Long-term value: 0.2* mg/m <sup>3</sup><br>*as thoracic fraction, A2     |
| <b>CAS: 7782-91-4 molybdic acid</b>  |  |
| PEL                                  | Long-term value: 5 mg/m <sup>3</sup><br>as Mo                            |
| TLV                                  | Long-term value: 0.5 mg/m <sup>3</sup><br>as Mo; A3; respirable fraction |

**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 skin.**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

*To avoid skin problems reduce the wearing of gloves to the required minimum.**Only use chemical-protective gloves with CE-labeling of category III.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.***Material of gloves***Nitrile rubber, NBR**Natural rubber, NR**Chloroprene rubber, CR**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.*

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## Trade name: Reagent SI1

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**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****Appearance:**

|                 |                 |
|-----------------|-----------------|
| Form:           | Fluid           |
| Color:          | Colorless       |
| Odor:           | Characteristic  |
| Odor threshold: | Not determined. |
| pH-value:       | Acidic          |

**Change in condition**

|                              |                 |
|------------------------------|-----------------|
| Melting point/Melting range: | Undetermined.   |
| Boiling point/Boiling range: | 100 °C (212 °F) |

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

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

**Explosion limits:**

|        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

**Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

**Density:** Not determined.

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

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

**Viscosity:**

|            |                 |
|------------|-----------------|
| Dynamic:   | Not determined. |
| Kinematic: | Not determined. |

**Solvent content:**

**Water:** >80.0 %

**Solids content:** 0.0 %

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Trade name: Reagent SI1

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Other information

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:****LD/LC50 values that are relevant for classification:****CAS: 7782-91-4 molybdic acid**

Oral LD50 2,689 mg/kg (rat)

**Primary irritant effect:****on the skin:** Irritant to skin and mucous membranes.**on the eye:** Strong irritant with the danger of severe eye injury.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

## 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 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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

**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.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.

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— USA —

Trade name: Reagent SI1

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Recommended cleansing agent: Water, if necessary with cleansing agents.

**\*14 Transport information**

UN-Number

DOT, IMDG, IATA

UN2796

UN proper shipping name

DOT, IMDG

SULPHURIC ACID

IATA

Sulphuric acid

Transport hazard class(es)

DOT



Class

8 Corrosive substances

Label

8

IMDG, IATA



Class

8 Corrosive substances

Label

8

Packing group

DOT, IMDG, IATA

II

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Corrosive substances

Hazard identification number (Kemler code):

80

EMS Number:

F-A, S-B

Segregation groups

(SGG1a) Strong acids

Stowage Category

B

Segregation Code

SG36 Stow "separated from" SGG18-alkalis.

SG49 Stow "separated from" SGG6-cyanides

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

DOT

Quantity limitations

On passenger aircraft/rail: 1 L

On cargo aircraft only: 30 L

IMDG

Limited quantities (LQ)

1L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation":

UN 2796 SULPHURIC ACID, 8, II

**15 Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture  
Sara

Section 355 (extremely hazardous substances):

CAS: 7664-93-9 sulphuric acid

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## Trade name: Reagent SI1

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**Section 313 (Specific toxic chemical listings):**

CAS: 7664-93-9 sulphuric acid

**TSCA (Toxic Substances Control Act):**

CAS: 7732-18-5 water

ACTIVE

CAS: 7664-93-9 sulphuric acid

ACTIVE

CAS: 7782-91-4 molybdic acid

ACTIVE

**Hazardous Air Pollutants**

None of the ingredients is listed.

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

None of the ingredients is listed.

**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.

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**TLV (Threshold Limit Value)**

CAS: 7664-93-9 sulphuric acid

A2

CAS: 7782-91-4 molybdic acid

A3

**MAK (German Maximum Workplace Concentration)**

CAS: 7664-93-9 sulphuric acid

4

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

None of the ingredients is listed.

**GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

GHS05 GHS08

**Signal word** Danger**Hazard-determining components of labeling:**

Sodium hydrogensulfate monohydrate

molybdic acid

sulphuric acid

**Hazard statements**

Causes skin irritation.

Causes serious eye damage.

May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

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.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

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— USA —

**Trade name: Reagent SI1**

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

**National regulations:**

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**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:** PCC - TWR

**Contact:** MSDS.pcc@endress.com

**Date of preparation / last revision** 07/17/2023

**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)

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

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

**\* Data compared to the previous version altered.**

## 1 Identification

### Product identifier

Trade name: **Reagent SI2**

Synonym: *for silicate*

Article number: 51508827

Application of the substance / the mixture *Laboratory chemicals*

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

#### Information department:

Phone: +49 (0)7156 209-10117  
E-Mail: [MSDS.PCC@endress.com](mailto:MSDS.PCC@endress.com)

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture



GHS07

*Eye Irritation 2A H319 Causes serious eye irritation.*

### Label elements

#### GHS label elements

*The product is classified and labeled according to the Globally Harmonized System (GHS).*

#### Hazard pictograms



GHS07

#### Signal word *Warning*

#### Hazard statements

*Causes serious eye irritation.*

#### Precautionary statements

*Wash thoroughly after handling.*

*Wear eye protection / face protection.*

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

*If eye irritation persists: Get medical advice/attention.*

#### Classification system:

#### NFPA ratings (scale 0 - 4)



Health = 2

Fire = 0

Reactivity = 0

#### HMIS-ratings (scale 0 - 4)



Health = 2

Fire = 0

Reactivity = 0

## Trade name: Reagent SI2

(Contd. of page 1)

**Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

**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:**

|              |   |        |
|--------------|---|--------|
| CAS: 77-92-9 | citric acid   | 10-20% |
|              | Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335 |        |

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

**4 First-aid measures****Description of first aid measures**

**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. If symptoms persist, 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:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:** no further information

**Special hazards arising from the substance or mixture** No further relevant information available.

**Advice for firefighters** No further relevant information available.

**Protective equipment:** No special measures required.

**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures** Wear protective clothing.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 3)

## Trade name: Reagent SI2

(Contd. of page 2)

## Protective Action Criteria for Chemicals

## PAC-1:

*None of the ingredients is listed.*

## PAC-2:

*None of the ingredients is listed.*

## PAC-3:

*None of the ingredients is listed.*

## 7 Handling and storage

**Precautions for safe handling** *No special precautions are necessary if used correctly.***Information about protection against explosions and fires:** *No special measures required.***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.***Storage class:** 12**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 section 7.***Control parameters****Components with limit values that require monitoring at the workplace:***The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.***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.**Avoid contact with the eyes.**Avoid contact with the eyes and skin.***Breathing equipment:** *Not required.***Protection of hands:**

Protective gloves

*To avoid skin problems reduce the wearing of gloves to the required minimum.**Only use chemical-protective gloves with CE-labeling of category III.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.***Material of gloves***Nitrile rubber, NBR**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.*

(Contd. on page 4)

— USA —

## Trade name: Reagent SI2

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**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****Appearance:**

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Fluid           |
| <b>Color:</b>          | Colorless       |
| <b>Odor:</b>           | Odorless        |
| <b>Odor threshold:</b> | Not determined. |
| <b>pH-value:</b>       | Slightly acidic |

**Change in condition**

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | Undetermined.   |
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**Auto igniting:** 1 °C (33.8 °F)

**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

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

**Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
| <b>Upper:</b> | Not determined. |

**Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

**Density at 20 °C (68 °F):** 1.081 g/cm<sup>3</sup> (9.021 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

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

**Viscosity:**

|                   |                 |
|-------------------|-----------------|
| <b>Dynamic:</b>   | Not determined. |
| <b>Kinematic:</b> | Not determined. |

**Solvent content:**

**Water:** >80.0 %

**Solids content:** 0.0 %

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— USA —

Trade name: Reagent SI2

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Other information

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:****LD/LC50 values that are relevant for classification:****CAS: 77-92-9 citric acid**

Oral | LD50 | 5,040 mg/kg (Mouse)

**Primary irritant effect:****on the skin:** No irritant effect.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

## 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 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.

**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.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.

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— USA —



# Safety Data Sheet

acc. to OSHA HCS

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Version 6

Reviewed on 07/17/2023

Trade name: Reagent SI2

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Recommended cleansing agent: Water, if necessary with cleansing agents.

## \*14 Transport information

|   |                 |
|---|-----------------|
| UN-Number   |                 |
| DOT, ADN, IMDG, IATA  | Void            |
| UN proper shipping name   |                 |
| DOT, ADN, IMDG, IATA  | Void            |
| Transport hazard class(es)  |                 |
| DOT, ADN, IMDG, IATA  |                 |
| Class   | Void            |
| Packing group   |                 |
| DOT, IMDG, IATA   | Void            |
| Environmental hazards:  | Not applicable. |
| Special precautions for user  | Not applicable. |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| UN "Model Regulation":  | Void            |

## 15 Regulatory information

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

### Section 355 (extremely hazardous substances):

None of the ingredient is listed.

### Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

### 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:

None of the ingredients is listed.

#### 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.

### Carcinogenicity categories

#### EPA (Environmental Protection Agency)

None of the ingredients is listed.

#### TLV (Threshold Limit Value)

None of the ingredients is listed.

#### MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 7)



## Trade name: Reagent SI2

(Contd. of page 6)

## Hazard pictograms



GHS07

Signal word *Warning*

## Hazard statements

*Causes serious eye irritation.*

## Precautionary statements

*Wash thoroughly after handling.**Wear eye protection / face protection.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**If eye irritation persists: Get medical advice/attention.*

## National regulations:

**Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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:** PCC - TWR**Contact:** *MSDS.pcc@endress.com***Date of preparation / last revision** 07/17/2023**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)**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**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A**Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3***\* Data compared to the previous version altered.**

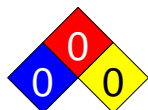
— USA —


**1 Identification****Product identifier****Trade name:** Reagent SI3, Component 1**Synonym:** *for silicate***Article number:** 51509864\_1**Application of the substance / the mixture** *Laboratory chemicals***Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Endress+Hauser Conducta Inc.  
 4123 E. La Palma Ave., Suite 200  
 Anaheim  
 CA 92807-1813  
 USA

**Information department:**

Phone: +49 (0)7156 209-10117  
 E-Mail: MSDS.PCC@endress.com

**Emergency telephone number:** 001 18000 222 1222**2 Hazard(s) identification****Classification of the substance or mixture***The product is not classified, according to the Globally Harmonized System (GHS).***Label elements****GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Classification system:****NFPA ratings (scale 0 - 4)***Health = 0**Fire = 0**Reactivity = 0***HMIS-ratings (scale 0 - 4)***Health = 0**Fire = 0**Reactivity = 0***Other hazards***The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.***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:**

|               |                          |  |       |
|---------------|--------------------------|--|-------|
| CAS: 124-68-5 | 2-amino-2-methylpropanol |  Skin Irritation 2, H315; Eye Irritation 2A, H319 | 5-10% |
|---------------|--------------------------|--|-------|

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

(Contd. on page 2)

— USA —

Trade name: Reagent SI3, Component 1

(Contd. of page 1)

## 4 First-aid measures

### Description of first aid measures

**General information:** No special measures required.

**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.

### 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:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:** no further information

**Special hazards arising from the substance or mixture** No further relevant information available.

**Advice for firefighters** No further relevant information available.

**Protective equipment:** No special measures required.

## \* 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Wear protective clothing.

### Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

### Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### Reference to other sections

No dangerous substances are released.

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:

CAS: 124-68-5 2-amino-2-methylpropanol

17 mg/m<sup>3</sup>

#### PAC-2:

CAS: 124-68-5 2-amino-2-methylpropanol

190 mg/m<sup>3</sup>

#### PAC-3:

CAS: 124-68-5 2-amino-2-methylpropanol

570 mg/m<sup>3</sup>

## \* 7 Handling and storage

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** No special measures required.

### Storage:

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

(Contd. on page 3)

— USA —

**Trade name: Reagent SI3, Component 1**

(Contd. of page 2)

**Further information about storage conditions:** *None.***Storage class:** 12**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 section 7.***Control parameters****Components with limit values that require monitoring at the workplace:***The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.***Additional information:** *The lists that were valid during the creation were used as basis.***Exposure controls****Personal protective equipment:****General protective and hygienic measures:***The usual precautionary measures for handling chemicals should be followed.***Breathing equipment:** *Not required.***Protection of hands:** *No chemical-protective gloves required.***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:** *Not required.***Body protection:** *Protective work clothing***\* 9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

|                        |                        |
|------------------------|------------------------|
| <b>Form:</b>           | <i>Fluid</i>           |
| <b>Color:</b>          | <i>Colorless</i>       |
| <b>Odor:</b>           | <i>Characteristic</i>  |
| <b>Odor threshold:</b> | <i>Not determined.</i> |
| <b>pH-value:</b>       | <i>Alkaline</i>        |

**Change in condition**

|                                     |                        |
|-------------------------------------|------------------------|
| <b>Melting point/Melting range:</b> | <i>Undetermined.</i>   |
| <b>Boiling point/Boiling range:</b> | <i>100 °C (212 °F)</i> |

**Flash point:** *Not applicable.***Flammability (solid, gaseous):** *Not applicable.***Decomposition temperature:** *Not determined.***Ignition temperature:** *Product is not selfigniting.***Danger of explosion:** *Product does not present an explosion hazard.  
Not determined.*

(Contd. on page 4)

## Trade name: Reagent SI3, Component 1

(Contd. of page 3)

**Explosion limits:****Lower:** *Not determined.***Upper:** *Not determined.***Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)**Density at 20 °C (68 °F):** 0.996 g/cm<sup>3</sup> (8.312 lbs/gal)**Relative density** *Not determined.***Vapor density** *Not determined.***Evaporation rate** *Not determined.***Solubility in / Miscibility with****Water:** *Fully miscible.***Partition coefficient (n-octanol/water):** *Not determined.***Viscosity:****Dynamic:** *Not determined.***Kinematic:** *Not determined.***Solvent content:****Organic solvents:** 7.5 %**Water:** 92.5 %**Solids content:** 0.0 %**Other information** *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:****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 is not subject to classification according to internally approved calculation methods for preparations:**When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.***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.*

(Contd. on page 5)

— USA —

**Trade name: Reagent SI3, Component 1**

(Contd. of page 4)

**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.***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:** *Smaller quantities can be disposed of with household waste.***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, ADN, IMDG, IATA** *Void***UN proper shipping name****DOT, ADN, IMDG, IATA** *Void***Transport hazard class(es)****DOT, ADN, IMDG, IATA****Class** *Void***Packing group****DOT, IMDG, IATA** *Void***Environmental hazards:****Marine pollutant:** *No***Special precautions for user** *Not applicable.***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.***Transport/Additional information:** *Not dangerous according to the above specifications.***DOT****Hazardous substance:** *32 lbs, 14,53 kg***UN "Model Regulation":** *Void***\*15 Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Sara****Section 355 (extremely hazardous substances):***None of the ingredient is listed.***Section 313 (Specific toxic chemical listings):***None of the ingredients is listed.***TSCA (Toxic Substances Control Act):***All components have the value ACTIVE.***Hazardous Air Pollutants***None of the ingredients is listed.*

(Contd. on page 6)

**Trade name: Reagent SI3, Component 1**

(Contd. of page 5)

**Proposition 65****Chemicals known to cause cancer:***None of the ingredients is listed.***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.***Carcinogenicity categories****EPA (Environmental Protection Agency)***None of the ingredients is listed.***TLV (Threshold Limit Value)***None of the ingredients is listed.***MAK (German Maximum Workplace Concentration)***None of the ingredients is listed.***NIOSH-Ca (National Institute for Occupational Safety and Health)***None of the ingredients is listed.***GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***National regulations:****Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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:** *PCC - TWR***Contact:** *MSDS.pcc@endress.com***Date of preparation / last revision** *07/17/2023***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)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**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***\* Data compared to the previous version altered.**



## 1 Identification

### Product identifier

Trade name: **Reagent SI3, Component 2**

Synonym: *for silicate*

Article number: 51509864\_2

Application of the substance / the mixture *Laboratory chemicals*

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

#### Information department:

Phone: +49 (0)7156 209-10117  
E-Mail: MSDS.PCC@endress.com

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture



GHS05 Corrosion

Eye Damage 1      H318 Causes serious eye damage.



GHS07

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

### Label elements

#### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

#### Hazard pictograms



GHS05   GHS07

### Signal word *Danger*

#### Hazard-determining components of labeling:

*disodium disulphite*

#### Hazard statements

*Harmful if swallowed.*

*Causes serious eye damage.*

#### Precautionary statements

*Wear eye protection / face protection.*

*If swallowed: Call a poison center/doctor if you feel unwell.*

*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.*

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

(Contd. on page 2)

— USA —



## Trade name: Reagent SI3, Component 2

(Contd. of page 1)

## Classification system:

## NFPA ratings (scale 0 - 4)



Health = 3

Fire = 0

Reactivity = 0

## HMIS-ratings (scale 0 - 4)



Health = \*3

Fire = 0

Reactivity = 0

## Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

## 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:

|                |   |         |
|----------------|---|---------|
| CAS: 7681-57-4 | disodium disulphite                               | 80-100% |
|                | Eye Damage 1, H318; Acute Toxicity - Oral 4, H302 |         |

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:

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. Then consult a doctor.

**After swallowing:** Immediately call a 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:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:** no further information

**Special hazards arising from the substance or mixture** No further relevant information available.

**Advice for firefighters** No further relevant information available.

(Contd. on page 3)

## Trade name: Reagent SI3, Component 2

(Contd. of page 2)

**Protective equipment:** No special measures required.

## \* 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.**Wear protective clothing.***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 section 13.***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:**

CAS: 7681-57-4 disodium disulphite

15 mg/m<sup>3</sup>**PAC-2:**

CAS: 7681-57-4 disodium disulphite

64 mg/m<sup>3</sup>**PAC-3:**

CAS: 7681-57-4 disodium disulphite

390 mg/m<sup>3</sup>

## \* 7 Handling and storage

**Precautions for safe handling** *Thorough dedusting.***Information about protection against explosions and fires:** No special measures required.**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.**Storage class:** 11**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 section 7.**Control parameters****Components with limit values that require monitoring at the workplace:****CAS: 7681-57-4 disodium disulphite**REL Long-term value: 5 mg/m<sup>3</sup>TLV Long-term value: 5 mg/m<sup>3</sup>

A4

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

(Contd. on page 4)

— USA —

**Trade name: Reagent SI3, Component 2**

(Contd. of page 3)

**Breathing equipment:** *Not required.***Protection of hands:***Protective gloves**To avoid skin problems reduce the wearing of gloves to the required minimum.**Only use chemical-protective gloves with CE-labeling of category III.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.***Material of gloves***Nitrile rubber, NBR**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****Appearance:****Form:** *Crystalline powder***Color:** *White***Odor:** *Characteristic***Odor threshold:** *Not determined.***pH-value:** *Not applicable.***Change in condition****Melting point/Melting range:** *Undetermined.***Boiling point/Boiling range:** *Undetermined.***Flash point:** *Not applicable.***Flammability (solid, gaseous):** *Not determined.***Decomposition temperature:** *Not determined.***Ignition temperature:** *Product is not selfigniting.***Danger of explosion:** *Product does not present an explosion hazard.  
Not determined.***Explosion limits:****Lower:** *Not determined.***Upper:** *Not determined.***Vapor pressure:** *Not applicable.***Density:** *Not determined.*

(Contd. on page 5)

**Trade name: Reagent SI3, Component 2**

(Contd. of page 4)

|  |  |
|--|--|
| 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.                            |
| Solvent content:                         |  |
| Solids content:                          | 100.0 %                                    |
| Other information                        | 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:****Primary irritant effect:**

on the skin: No irritant effect.

on the eye: Strong irritant with the danger of severe eye injury.

**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

**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 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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

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Printing date 07/17/2023

Version 3

Reviewed on 07/17/2023

Trade name: Reagent SI3, Component 2

(Contd. of page 5)

**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.

### 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, ADN, IMDG, IATA Void

### UN proper shipping name

DOT, ADN, IMDG, IATA Void

### Transport hazard class(es)

DOT, ADN, IMDG, IATA

Class Void

### Packing group

DOT, IMDG, IATA Void

**Environmental hazards:** Not applicable.

**Special precautions for user** Not applicable.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

**UN "Model Regulation":** Void

## \*15 Regulatory information

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

### Section 355 (extremely hazardous substances):

None of the ingredient is listed.

### Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

### 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:

None of the ingredients is listed.

#### 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.

(Contd. on page 7)

— USA —

## Trade name: Reagent SI3, Component 2

(Contd. of page 6)

## Carcinogenicity categories

## EPA (Environmental Protection Agency)

None of the ingredients is listed.

## TLV (Threshold Limit Value)

CAS: 7681-57-4 | disodium disulphite

A4

## MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

## GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

## Hazard pictograms



GHS05 GHS07

Signal word *Danger*

## Hazard-determining components of labeling:

disodium disulphite

## Hazard statements

Harmful if swallowed.

Causes serious eye damage.

## Precautionary statements

Wear eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

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.

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

## National regulations:

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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: PCC - TWR

Contact: MSDS.pcc@endress.com

Date of preparation / last revision 07/17/2023

## Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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# Safety Data Sheet

acc. to OSHA HCS

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## Trade name: Reagent SI3, Component 2

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*NIOSH: National Institute for Occupational Safety*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Acute Toxicity - Oral 4: Acute toxicity – Category 4*

*Eye Damage 1: Serious eye damage/eye irritation – Category 1*

**\* Data compared to the previous version altered.**

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— USA —