

SAFETY DATA SHEET

Issue Date 27-Jun-2016 Revision Date 07-Nov-2017 Version 4.1 Page 1 / 16

1. IDENTIFICATION

Product identifier

Product Name Hydrosulfite Reagent for Total Copper

Other means of identification

Product Code(s) 2118869

Safety data sheet number M00107

UN/ID no UN1384

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use.

Uses advised against None. Restrictions on use None.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Self-heating substances and mixtures | Category 1 |
|--|-------------|
| Acute toxicity - Oral | Category 4 |
| Serious eye damage/eye irritation | Category 2A |
| Respiratory sensitization | |
| Skin sensitization | |
| Mutagenicity | |
| Carcinogenicity | |
| Reproductive toxicity | |
| Specific target organ toxicity (single exposure) | |
| Specific target organ toxicity (repeated exposure) | |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word - Danger

ENG / AGHS Page 1/16

Product Name Hydrosulfite Reagent for Total Copper **Revision Date** 07-Nov-2017 **Page** 2 / 16



Hazard statements

H251 - Self-heating: may catch fire

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

Precautionary statements

P270 - Do not eat, drink or smoke when using this product

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

P501 - Dispose of contents/ container to an approved waste disposal plant

P264 - Wash face, hands and any exposed skin thoroughly after handling

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P235 + P410 - Keep cool. Protect from sunlight

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P407 - Maintain air gap between stacks/pallets

P420 - Store away from other materials

Other Information

Causes mild skin irritation Harmful to aquatic life with long lasting effects Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Substance</u>

Chemical NameSodium HydrosulfiteChemical FamilyReducing agent.FormulaNa2S2O4CAS No7775-14-6

Percent ranges are used where confidential product information is applicable.

| Chemical name | CAS No. | Percent Range | HMRIC # |
|-------------------|-----------|------------------|---------|
| Sodium dithionite | 7775-14-6 | 100% | - |

ENG / AGHS Page 2/16

Product Name Hydrosulfite Reagent for Total Copper **Revision Date** 07-Nov-2017

Page 3/16

4. FIRST AID MEASURES

Description of first aid measures

General advice IF IN EYES: Flush eyes for at least 15 minutes. May cause skin irritation.

Eve contact 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.

Skin contact For minor skin contact, avoid spreading material on unaffected skin. IF ON SKIN (or hair):

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Remove and isolate contaminated clothing and shoes. Call a POISON CENTER or doctor if you feel unwell. If skin irritation persists, call a

physician.

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms

persist, call a physician.

Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water and drink

afterwards plenty of water. Remove from exposure, lie down. Call a POISON CENTER or

doctor/physician if you feel unwell. Do not induce vomiting without medical advice.

Self-protection of the first aider

Use personal protective equipment as required. Ensure that medical personnel are aware

of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water. Carbon dioxide. Dry chemical. Dry sand,.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Flammable properties

Substance does not burn.

Specific hazards arising from the chemical

Do not expose to sparks or other ignition sources. Do not expose to flames. Exposure to moisture can result in spontaneous combustion. Finely divided dust may form a flammable or explosive mixture with air. May react violently with. Strong acids. Strong oxidizers. Water.

Hazardous combustion products

Sodium monoxide. Sulfur oxides.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

U.S. NoticeOnly persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

ENG / AGHS Page 3/16

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 4/16

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations

should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate

affected area. Use personal protective equipment as required.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into

surface water or sanitary sewer system. See Section 12 for additional ecological

information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent

spreading.

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal. Clean contaminated

surface thoroughly. Dispose of in accordance with local, state and federal regulations or

laws.

Emergency Response Guide Number 135

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of

children.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers

Eyewash stations Ventilation systems

ENG / AGHS Page 4/16

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 5 / 16

Individual protection measures, such as personal protective equipment

Eye/face protection Wear tight sealing safety goggles and/or face protection shield. Avoid contact with eyes.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Wear suitable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Avoid prolonged or repeated contact with skin. Take off all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Keep away from food,

drink and animal feeding stuffs.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Solid Physical state

Not classified according to GHS criteria **Gas Under Pressure**

powder Color white **Appearance**

Sulfur-like Odor threshold No data available Odor

Property Values Remarks • Method

Not applicable

Molecular weight 174.10 g/mole

pН 3.0

No data available Melting point/freezing point Boiling point / boiling range No data available

Not applicable Vapor pressure

Not applicable Vapor density (air = 1)

Specific gravity (water = 1 / air = 1) 2.2

Estimation through KOWWIN Partition Coefficient (n-octanol/water) $\log K_{ow} < -7.53$

v1.68 part of the Estimation Programs Interface (EPI)

SuiteTM

Soil Organic Carbon-Water Partition

Evaporation rate

 $log K_{oc} < -0.62$ Estimation through KOCWIN Coefficient v2.00 part of the Estimation

ENG / AGHS Page 5/16

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 6/16

Programs Interface (EPI)

SuiteTM

Autoignition temperature $100 \, ^{\circ}\text{C} \, / \, 212 \, ^{\circ}\text{F}$ Decomposition temperature $100 \, ^{\circ}\text{C} \, / \, 212 \, ^{\circ}\text{F}$

Dynamic viscosity Not applicable

Kinematic viscosity Not applicable

Solubility(ies)

Water solubility

| Water solubility classification | Water solubility_ | Water Solubility Temperature | |
|---------------------------------|-------------------|------------------------------|--|
| Completely soluble | 250000 mg/L | 20 °C / 68 °F | |

Solubility in other solvents

| Chemical Name | Solubility classification | <u>Solubility</u> | Solubility Temperature |
|---------------|---------------------------|-------------------|------------------------|
| Acids | Insoluble | < 0.1 mg/L | 25 °C / 77 °F |

Other Information

Metal Corrosivity

Not classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate 3.02 mm/yr / 0.12 in/yr

Aluminum Corrosion Rate 0.05 mm/yr / 0 in/yr

Volatile Organic Compounds (VOC) Content Not applicable.

Bulk density 1250 kg/m³

Explosive properties Not classified according to GHS criteria.

Explosion data Dusts at sufficient concentrations can form explosive mixtures

with air. Exposure to moisture can result in spontaneous combustion. During a fire, corrosive and toxic gases may be

generated by thermal decomposition.

Upper explosion limit No data available

Lower explosion limit No data available

Flammable properties Not classified as flammable according to GHS criteria.

Flammability Limit in Air

Upper flammability limit: No data available

Lower flammability limit: No data available

Flash point Not applicable

Method No information available

Oxidizing properties Not classified according to GHS criteria.

ENG / AGHS Page 6/16

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 7/16

Reactivity propeties

Classified as a self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

GHS Self-Heating Substances and Mixtures

Category 1, H251

10. STABILITY AND REACTIVITY

Reactivity propeties

Classified as a self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

Chemical stability

Stable under recommended storage conditions.

Special dangers of the product

None reported

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Sulfur oxides.

Explosive properties

Not classified according to GHS criteria. Dusts at sufficient concentrations can form explosive mixtures with air. Exposure to moisture can result in spontaneous combustion. During a fire, corrosive and toxic gases may be generated by thermal decomposition.

Upper explosion limit No data available

Lower explosion limit No data available

Autoignition temperature

100 °C / 212 °F

Sensitivity to Static Discharge

None reported

Sensitivity to Mechanical Impact

None reported

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

| Product Information | Causes mild skin irritation. Causes serious eye irritation. Harmful if swallowed. |
|---------------------|---|
| Inhalation | No known effect based on information supplied. |

ENG / AGHS Page 7/16

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 8/16

| Eye contact | | Severely irritating to eyes. | | |
|---------------------------|--|--|--|--|
| Skin contact | | Causes mild skin irritation. | | |
| Ingestion | | Harmful if swallowed. | | |
| Aggravated Medical | Skin disorders. Eye disorders. | | | |
| Toxicologically syne | nergistic products None known. | | | |
| Toxicokinetics, meta | abolism and distribution | This Product is by Weight 100% an Individual Pure Chemical | | |
| | | Substance. See ingredients information below. | | |
| Chemical name | Toxicokine | tics, metabolism and distribution | | |
| Sodium dithionite | Under physiological condition, it is expected that sodium dithionate will rapidly convert to related sulfite | | | |
| (100%) | | sulfite, and sodium metabisulfite. Toxicity data for these | | |
| CAS#: 7775-14-6 | compounds should be considered. | | | |

Product Acute Toxicity Data

This Product is by Weight 100% an Individual Pure Chemical

Substance

Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see ingredient data below If available, see ingredient data below

Acute Toxicity Estimations (ATE)

Not applicable

The following values are calculated based on chapter 3.1 of the GHS document

Ingredient Acute Toxicity Data

| Oral Exposure Route | If available, see data below |
|---------------------|----------------------------------|
| | |

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|-------------------------|------------------|--------------|----------|-----------------------|-------------------------------|
| | type | dose | time | | sources for data |
| Sodium dithionite | Mouse | 1500 mg/kg | None | None reported | ERMA (New Zealands |
| (100%) | LD ₅₀ | | reported | • | Environmental Risk |
| CAS#: 7775-14-6 | | | | | Management Authority) |
| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
| | type | dose | time | - | sources for data |
| Sodium dithionite | Rat | 2500 mg/kg | None | None reported | ERMA (New Zealands |
| J Social in difficience | Nai | ZJUU IIIg/kg | INOLIG | I None reported | LIVINA (INCW Zealalius |
| (100%) | LD ₅₀ | 2500 mg/kg | reported | None reported | Environmental Risk |

Dermal Exposure Route
If available, see data below
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
If available, see data below
Inhalation (Gas) Exposure Route
If available, see data below
If available, see data below

Product Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route
Dermal Exposure Route
If available, see ingredient data below
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route
If available, see ingredient data below
Inhalation (Gas) Exposure Route
If available, see ingredient data below
Inhalation (Gas) Exposure Route
If available, see ingredient data below

Ingredient Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

Dermal Exposure Route

If available, see data below

Aspiration toxicity

If available, see data below

Kinematic viscosity

Not applicable

ENG / AGHS Page 8/16

Product Name Hydrosulfite Reagent for Total Copper **Revision Date** 07-Nov-2017

Page 9/16

Product Skin Corrosion/Irritation Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------------|---------|------------------|------------------|--------------------|---|
| Sodium dithionite (100%) CAS#: 7775-14-6 | Standard Draize Test | Rabbit | 800 mg | None reported | Mild skin irritant | IUCLID (The International Uniform Chemical Information Database) |

Product Serious Eye Damage/Eye Irritation Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Eye Damage/Eye Irritation Data

If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------------|---------|------------------|------------------|--------------|---|
| Sodium dithionite (100%) CAS#: 7775-14-6 | Standard Draize Test | Rabbit | 100 mg | None reported | Eye irritant | IUCLID (The International Uniform Chemical Information Database) |

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

Respiratory Sensitization Exposure Route

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below. This Product is by Weight 100% an Individual Pure Chemical

Substance. If available, see ingredient data below.

Ingredient Sensitization Data

Skin Sensitization Exposure Route

If available, see data below.

| ſ | Chemical name | Test method | Species | Results | Key literature references and |
|---|--|---------------------------|---------|---------------------------------------|---|
| | | | | | sources for data |
| | Sodium dithionite (100%) CAS#: 7775-14-6 | Based on human experience | Human | Not confirmed to be a skin sensitizer | OECD (Organization for Economic Co-operation and Development) |

Respiratory Sensitization Exposure Route

If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data

Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route
If available, see ingredient data below.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

| | | • | | |
|---------------------|------|---|--------------|-------------------|
| Oral Exposure Route | | | If available | e, see data below |

| | Oral Exposure Noute | | | | ii available, see data below | |
|-----------------|---------------------|----------|-----------|----------|------------------------------|-------------------------------|
| Chemical name E | | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
| | | type | dose | time | | sources for data |
| | Sodium dithionite | Rat | 217 mg/kg | None | None reported | OECD (Organization for |
| | (100%) | NOAEL | | reported | | Economic Co-operation and |
| | CAS#: 7775-14-6 | | | | | Development) |

Dermal Exposure Route

If available, see data below

ENG / AGHS Page 9/16

Product Name Hydrosulfite Reagent for Total Copper Revision Date 07-Nov-2017

Page 10 / 16

Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route

If available, see data below If available, see data below If available, see data below

Product Carcinogenicity Data

Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route

If available, see ingredient data below If available, see ingredient data below

Ingredient Carcinogenicity Data

| | Chemical name | CAS No. | ACGIH | IARC | NTP | OSHA |
|---|-------------------|-----------|-------|------|-----|------|
| Γ | Sodium dithionite | 7775-14-6 | - | - | - | - |

Legend

| ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply |
|---|----------------|
| IARC (International Agency for Research on Cancer) | Does not apply |
| NTP (National Toxicology Program) | Does not apply |
| OSHA (Occupational Safety and Health Administration of the US Department of | Does not apply |
| Labor) | |

Oral Exposure Route

If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|------------------|---------------|---------------|--------------------------------------|--|
| Sodium dithionite (100%) CAS#: 7775-14-6 | None reported | 942 mg/kg | 2 years | Negative results for carcinogenicity | No information available |

Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route

If available, see data below If available, see data below If available, see data below If available, see data below

Product Germ Cell Mutagenicity invitro **Data**

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Germ Cell Mutagenicity invitro Data

If available, see data below

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------------|-----------------------------|------------------|------------------|---------------------------------------|--|
| Sodium dithionite (100%) CAS#: 7775-14-6 | Mutation in microorganisms | Salmonella typhimurium | None reported | None reported | Negative test result for mutagenicity | IUCLID (The International Uniform Chemical Information Database) |
| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
| Sodium dithionite (100%) CAS#: 7775-14-6 | Mutation in microorganisms | Bacteria - not specified | None reported | None reported | Negative test result for mutagenicity | IUCLID (The International Uniform Chemical Information Database) |

Product Germ Cell Mutagenicity invivo Data

Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below If available, see ingredient data below If available, see ingredient data below

Page 10/16 ENG / AGHS

Product Name Hydrosulfite Reagent for Total Copper Revision Date 07-Nov-2017

Page 11 / 16

Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route

If available, see ingredient data below If available, see ingredient data below

Ingredient Germ Cell Mutagenicity invivo Data

Oral Exposure Route If available, see data below

| Chemical name | Test | Species | Reported | Exposure | Results | Key literature |
|-------------------|-------------|---------|------------|----------|----------------------|------------------|
| | | | dose | time | | references and |
| | | | | | | sources for data |
| Sodium dithionite | Cytogenetic | Rat | 1200 mg/kg | None | Negative test result | IUCLID (The |
| (100%) | analysis | | | reported | for mutagenicity | International |
| CAS#: 7775-14-6 | • | | | - | | Uniform Chemical |
| | | | | | | Information |
| | | | | | | Database) |

Dermal Exposure Route If available, see data below Inhalation (Dust/Mist) Exposure Route If available, see data below Inhalation (Vapor) Exposure Route If available, see data below Inhalation (Gas) Exposure Route If available, see data below

Product Reproductive Toxicity Data

If available, see ingredient data below **Oral Exposure Route** If available, see ingredient data below **Dermal Exposure Route** If available, see ingredient data below Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route If available, see ingredient data below Inhalation (Gas) Exposure Route If available, see ingredient data below

Ingredient Reproductive Toxicity Data

Oral Exposure Route If available, see data below If available, see data below Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route If available, see data below If available, see data below Inhalation (Gas) Exposure Route

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Product Ecological Data This Product is by Weight 100% an Individual Pure Chemical

Substance

Aquatic toxicity

Fish If available, see ingredient data below Crustacea If available, see ingredient data below If available, see ingredient data below Algae

Ingredient Ecological Data

Aquatic toxicity

Fish If available, see ingredient data below

| Chemical name | Exposure | Species | Endpoint | Reported | Key literature references and |
|-------------------|----------|----------------|------------------|------------|-------------------------------|
| | time | | type | dose | sources for data |
| Sodium dithionite | 96 hours | Leuciscus idus | LC ₅₀ | >= 46 mg/L | IUCLID (The International |
| (100%) | | | | | Uniform Chemical Information |
| CAS#: 7775-14-6 | | | | | Database) |

Crustacea If available, see ingredient data below

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------|------------------|---------------|--|
| Sodium dithionite (100%) CAS#: 7775-14-6 | 48 Hours | Daphnia magna | EC ₅₀ | 98 mg/L | IUCLID (The International Uniform Chemical Information Database) |

ENG / AGHS Page 11/16

Product Name Hydrosulfite Reagent for Total Copper Revision Date 07-Nov-2017

Page 12/16

Algae No data available

Other Information

Persistence and degradability

Product Biodegradability Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Biodegradability Data

Test data reported below

| rest data reported ber | | | | |
|--|----------------|----------------|------------------|---------------------------|
| Chemical name | Test method | Biodegradation | Exposure | Results |
| | | | time | |
| Sodium dithionite (100%) CAS#: 7775-14-6 | Inorganic Salt | None reported | None reported | Not readily biodegradable |

Bioaccumulation

Product Bioaccumulation Data

This Product is by Weight 100% an Individual Pure Chemical

Substance.

Partition Coefficient (n-octanol/water) $log K_{ow} < -7.53$

No data available **Ingredient Bioaccumulation Data**

| Chemical name | Partition Coefficient | Method |
|-------------------|-----------------------|--------------------------------------|
| | (n-octanol/water) | |
| Sodium dithionite | log K₀w < -7.53 | Estimation through KOWWIN v1.68 part |
| (100%) | - | of the Estimation Programs Interface |
| CAS#: 7775-14-6 | | (EPI) Suite™ |

Mobility

Product Information

Soil Organic Carbon-Water Partition Coefficient

 $log K_{oc} < -0.62$

Water solubility

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---------------------------------|------------------|------------------------------|
| Completely soluble | 250000 mg/L | 20 °C / 68 °F |

Ingredient Information

| Chemical name | Soil Organic Carbon-Water Partition | Method |
|--|-------------------------------------|--------------------------|
| | Coefficient | |
| Sodium dithionite (100%) CAS#: 7775-14-6 | log K _{oc} < -0.62 | No information available |

| Ī | Chemical name | Water solubility classification | Water solubility | Water solubility temperature °C | Water solubility temperature °F |
|---|--------------------------------------|---------------------------------|------------------|---------------------------------|---------------------------------|
| Ī | Sodium dithionite CAS#: 7775-14-6 | Completely soluble | 250000 mg/L | 20 °C | 68 °F |

Other adverse effects

Global warming potential.

Page 12/16 ENG / AGHS

Product Name Hydrosulfite Reagent for Total Copper

Revision Date 07-Nov-2017

Page 13 / 16

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national, and local laws and

regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national, and local laws and

regulations.

US EPA Waste Number D001

Special instructions for disposal Incinerate material at an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

U.S. DOT

UN/ID no UN1384

Proper shipping name Sodium Dithionite

Hazard Class 4.2 Packing Group

Special Provisions Contact with acids liberates toxic gas, sulfur dioxide. Self-heating; exposure to air may

cause substance to self-heat without an energy supply. Spontaneously combustible

material.

Emergency Response Guide

Number

135

<u>TDG</u>

UN/ID no UN1384 Hazard Class 4.2 Packing Group II

IATA

UN/ID no UN1384

Proper shipping name Sodium Dithionite

Hazard Class 4.2
Packing Group II
ERG Code 135

IMDG

UN/ID no UN1384

Proper shipping name Sodium Dithionite

Hazard Class 4.2 Packing Group

Note: No special precautions necessary.

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

ENG / AGHS Page 13/16

Product Name Hydrosulfite Reagent for Total Copper Revision Date 07-Nov-2017

Page 14 / 16

15. REGULATORY INFORMATION

National Inventories

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

| EINECS/ELINCS | Complies |
|---------------|----------|
| ENCS | Complies |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Complies |
| TCSI | Complies |
| AICS | Complies |
| NZIoC | Complies |

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

| Acute health hazard | Yes |
|-----------------------------------|-----|
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

| Chemical name | U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues | |
|--|--|--|
| Sodium dithionite (100%) CAS#: 7775-14-6 | Sabotage/Contamination | |
| | | |

ENG / AGHS Page 14/16

Product Name Hydrosulfite Reagent for Total Copper **Revision Date** 07-Nov-2017

Page 15 / 16

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|-------------------|------------|---------------|--------------|
| Sodium dithionite | X | X | X |
| 7775-14-6 | | | |

U.S. EPA Label Information

| Chemical name | FIFRA | FDA | |
|-------------------|-------|---------------|--|
| Sodium dithionite | - | 21 CFR 182.90 | |

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Not applicable

NFPA and HMIS Classifications

| | NFPA | Health hazards - 2 | Flammability - 0 | Instability - 3 | Physical and Chemical |
|---|------|--------------------|------------------|----------------------|--------------------------|
| | | | | | Properties - |
| I | HMIS | Health hazards - 1 | Flammability - 0 | Physical Hazards - 3 | Personal protection - X |
| | | | - | _ | - See section 8 for more |
| | | | | | information |

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH Immediately Dangerous to Life or Health

ACGIH (American Conference of Governmental Industrial Hygienists)

NDF no data

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

X Listed Vacated These values have no official status. The only

binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

ENG / AGHS Page 15/16

Product Name Hydrosulfite Reagent for Total Copper **Revision Date** 07-Nov-2017

Page 16 / 16

SKN* Skin designation SKN+ Skin sensitization
RSP+ Respiratory sensitization ** Hazard Designation
C Carcinogen R Reproductive toxicant
M mutagen

Prepared By Hach Product Compliance Department

Issue Date 27-Jun-2016

Revision Date 07-Nov-2017

Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

HACH COMPANY©2017

End of Safety Data Sheet

ENG / AGHS Page 16/16