

SAFETY DATA SHEET

Revision Date 18-Jan-2018

Revision Number 3

| | 1. Identification |
|---|---|
| Product Name | Sodium bitartrate monohydrate |
| Cat No. : | S245-500 |
| Synonyms | Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, monosodium salt, monohydrate; Sodium hydroge |
| Recommended Use Uses advised against | Laboratory chemicals. Not for food, drug, pesticide or biocidal product use |

Details of the supplier of the safety data sheet

<u>Company</u>

Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

Label Elements

None required

Hazards not otherwise classified (HNOC) None identified

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|--|-----------|----------|
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt, monohydrate | 6131-98-2 | 100 |
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt | 526-94-3 | - |

4. First-aid measures

| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
|-------------------------------|---|
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention. |
| Ingestion | Do not induce vomiting. Obtain medical attention. |
| Most important symptoms and | No information available. |
| effects Notes to Physician | Treat symptomatically |
| | |

5. Fire-fighting measures

| Unsuitable Extinguishing Media | No information available |
|---|--|
| Flash Point Method - | No information available |
| Autoignition Temperature Explosion Limits | No information available |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact Sensitivity to Static Discharge | No information available No information available |

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None under normal use conditions

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.

|--|

| <u></u> | Health 1 | Flammability 1 | Instability 0 | Physical hazards N/A | | | | | |
|--|--|---|--|---------------------------|--|--|--|--|--|
| | | 6. Accidental rel | ease measures | | | | | | |
| Personal Pr Environmen | ecautions Ital Precautions | Use personal protective eq Should not be released into | uipment. Ensure adequate ver the environment. | itilation. | | | | | |
| Methods for Containment and Clean Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. | | | | | | | | | |
| 7. Handling and storage | | | | | | | | | |
| Handling | | | eyes. Avoid breathing dust. M before breaks and immediate n. | | | | | | |
| Storage | | Keep containers tightly clos | ed in a dry, cool and well-vent | ilated place. | | | | | |
| | 8. Exposure controls / personal protection | | | | | | | | |
| Exposure G | <u>uidelines</u> | | ain any hazardous materials w ion specific regulatory bodies. | ith occupational exposure | | | | | |

| Engineering Measures | Ensure adequate ventilation, especially in confined areas. |
|-------------------------------|---|
| Personal Protective Equipment | |
| Eye/face Protection | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

| · · · · · · · · · · · · · · · · · · · | ringsical and chemical properties |
|---------------------------------------|-----------------------------------|
| Physical State | Powder Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| рН | Acidic |
| Melting Point/Range | No data available |
| Boiling Point/Range | |
| Flash Point | |
| Evaporation Rate | No information available |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | No information available |
| Specific Gravity | No information available |
| Solubility | Soluble in water |
| Partition coefficient; n-octanol/wat | er No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | No information available |
| Molecular Formula | C4H6O6.Na.H2O |
| Molecular Weight | 190.09 |
| | |

10. Stability and reactivity

| Reactive Hazard | None known, based on information available |
|---------------------------------|--|
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Avoid dust formation. Incompatible products. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Product | s None under normal use conditions |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

| | | 11. Toxico | ological info | ormation | | | | | | | |
|---|---|---------------------|--------------------|--------------------|--------------------|------------------|--|--|--|--|--|
| Acute Toxicity | | | | | | | | | | | |
| Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Mist LC50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Component Information Based on ATE data, the classification criteria are not met. ATE > 5 mg/l. No information available No information available | | | | | | | | | | | |
| Delayed and immed | liate effects as w | ell as chronic effe | cts from short an | d long-term expo | sure | | | | | | |
| Irritation | | | | | | | | | | | |
| Sensitization | | No information ava | ilable | | | | | | | | |
| Carcinogenicity | | The table below inc | dicates whether ea | ach agency has lis | ted any ingredient | as a carcinogen. | | | | | |
| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico | | | | | |
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt, monohydrate | 6131-98-2 | Not listed | | | | | | | | | |
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt | 526-94-3 | Not listed | | | | | | | | | |
| Mutagenic Effects | | No information ava | ilable | | | | | | | | |
| Reproductive Effect | Reproductive Effects No information available. | | | | | | | | | | |
| Developmental Effe | Developmental Effects No information available. | | | | | | | | | | |
| Teratogenicity | | | | | | | | | | | |
| STOT - single exposure None known STOT - repeated exposure None known | | | | | | | | | | | |
| Aspiration hazard No information available | | | | | | | | | | | |
| Symptoms / effects,both acute and No information available delayed | | | | | | | | | | | |
| Endocrine Disruptor Information No information available | | | | | | | | | | | |
| Other Adverse Effects The toxicological properties have not been fully investigated. | | | | | | | | | | | |
| | | 12. Ecolo | ogical infor | mation | | | | | | | |
| Ecotoxicity Do not empty into dra | ains. | | - | | | | | | | | |
| Persistence and De | gradability | No information ava | ilable | | | | | | | | |
| Bioaccumulation/ A | ccumulation | No information ava | ilable. | | | | | | | | |
| Mobility | | No information ava | ilable. | | | | | | | | |
| | | 13. Dispo | sal conside | erations | | | | | | | |

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and

national hazardous waste regulations to ensure complete and accurate classification.

| | 14. Transport information | | | | | |
|--------------------|----------------------------|--|--|--|--|--|
| DOT | Not regulated | | | | | |
| DOT TDG IATA | Not regulated | | | | | |
| ΙΑΤΑ | Not regulated | | | | | |
| IMDG/IMO | Not regulated | | | | | |
| | 15. Regulatory information | | | | | |

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt, monohydrate | - | - | - | - | - | | - | - | Х | - | - |
| Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, monosodium salt | X | Х | - | 208-400-9 | - | | Х | Х | Х | х | Х |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA. F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

| TSCA 12(b) | Not applicable |
|--|--|
| SARA 313 | Not applicable |
| SARA 311/312 Hazard Categories | See section 2 for more information |
| CWA (Clean Water Act) | Not applicable |
| Clean Air Act | Not applicable |
| OSHA Occupational Safety and Health Not applicable | n Administration |
| CERCLA | Not applicable |
| California Proposition 65 | This product does not contain any Proposition 65 chemicals |
| U.S. State Right-to-Know Regulations | Not applicable |
| U.S. Department of Transportation | |
| Reportable Quantity (RQ): DOT Marine Pollutant | N N |

DOT Severe Marine Pollutant

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Ν

Other International Regulations

| Mexico - Grade | No information available |
|---|---|
| 16. Other information | |
| Prepared By | Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com |
| Revision Date Print Date Revision Summary | 18-Jan-2018 18-Jan-2018 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS