Material Safety Data Sheet

Version 4.2 Revision Date 05/17/2012 Print Date 04/16/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sodium thiosulfate pentahydrate

Product Number : 217247 Brand : Sigma-Aldrich

Supplier : Sigma-Aldrich

3050 Spruce Street SAINT LOUIS MO 63103

USA

Telephone : +1 800-325-5832 Fax : +1 800-325-5052 Emergency Phone # (For : (314) 776-6555

Emergency Phone # (Fo

both supplier and manufacturer)

Preparation Information : Sigma-Aldrich Corporation

Product Safety - Americas Region

1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0 Flammability: 0 Physical hazards: 0

NFPA Rating

Health hazard: 0 Fire: 0 Reactivity Hazard: 0

Potential Health Effects

InhalationMay be harmful if inhaled. May cause respiratory tract irritation.SkinMay be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation. **Ingestion** May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : $Na_2O_3S_2 \cdot 5H_2O$ Molecular Weight : 248.18 g/mol

No ingredients are hazardous according to OSHA criteria.

4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Sigma-Aldrich - 217247 Page 1 of 6

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIREFIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Sodium/sodium oxides

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Sodium oxides

Further information

The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: > 480 min

Material tested:Dermatril® (Aldrich Z677272, Size M)

Splash protection

Sigma-Aldrich - 217247 Page 2 of 6

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: > 30 min

Material tested:Dermatril® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form crystalline Colour colourless

Safety data

pH no data available

Melting no data available

point/freezing point

Boiling point no data available
Flash point not applicable
Ignition temperature no data available
Autoignition no data available

temperature

Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density no data available
Water solubility no data available
Partition coefficient: no data available

n-octanol/water

II-OCIAIIOI/Water

Relative vapour

density

no data available

Odour odourless

Odour Threshold no data available Evaporation rate no data available

10. STABILITY AND REACTIVITY

Sigma-Aldrich - 217247 Page 3 of 6

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Sodium nitrate, acids, Strong oxidizing agents, Incompatible with:, iodides, Silver salts, mercury salts, Lead

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Sodium/sodium oxides Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Sodium oxides Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

LD50 Intravenous - rat - > 2,500 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a

known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Sigma-Aldrich - 217247 Page 4 of 6

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Sigma-Aldrich - 217247 Page 5 of 6

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No Components Listed

Pennsylvania Right To Know Components

CAS-No. Sodium thiosulphate pentahydrate 10102-17-7

New Jersey Right To Know Components

Sodium thiosulphate pentahydrate

CAS-No. 10102-17-7 Revision Date

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

Copyright 2012 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Sigma-Aldrich - 217247 Page 6 of 6