1. PRODUCT AND COMPANY IDENTIFICATION

   Product name: Sodium hydrosulfite
   Product Number: 71699
   Brand: Sigma
   Supplier: Sigma-Aldrich Corporation
   3050 Spruce Street
   SAINT LOUIS MO  63103
   USA
   Telephone: +1 800-325-5832
   Fax: +1 800-325-5052
   Emergency Phone #: (314) 776-6555
   Preparation Information: Sigma-Aldrich Corporation
   Product Safety - Americas Region
   1-800-521-8956

2. HAZARDS IDENTIFICATION

   Emergency Overview

   OSHA Hazards
   Unstable Reactive, Harmful by ingestion.

   GHS Classification
   Self-heating substances (Category 1)
   Acute toxicity, Oral (Category 4)
   Acute aquatic toxicity (Category 2)

   GHS Label elements, including precautionary statements

   Pictogram
   Signal word: Danger
   Hazard statement(s)
   H251: Self-heating: may catch fire.
   H302: Harmful if swallowed.
   H401: Toxic to aquatic life.
   Precautionary statement(s)
   P235 + P410: Keep cool. Protect from sunlight.

   Other hazards
   Contact with acids liberates toxic gas.

   HMIS Classification
   Health hazard: 2
   Flammability: 1
   Physical hazards: 2

   NFPA Rating
   Health hazard: 2
   Fire: 1
   Reactivity Hazard: 2
Potential Health Effects

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Eyes</td>
<td>May cause eye irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Toxic if swallowed.</td>
</tr>
</tbody>
</table>

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Sodium dithionite, Sodium hypodisulfite

Formula: Na₂O₄S₂

Molecular Weight: 174.11 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium dithionite</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7775-14-6</td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-890-0</td>
</tr>
<tr>
<td>Index-No.</td>
<td>016-028-00-1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

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. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Dry powder

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Air and moisture sensitive. Store under inert gas. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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
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
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: powder
Colour: white

Safety data

pH: 7.0 - 9 at 50 g/l at 20 °C (68 °F)
Melting point/freezing point: 300 °C (572 °F)
Boiling point: no data available
Flash point: no data available
Ignition temperature: > 200 °C (> 392 °F)
Autoignition temperature: The substance or mixture is classified as self heating with the category 1.

Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: no data available
Density: 2.500 g/cm³ at 20 °C (68 °F)
Water solubility: no data available
Partition coefficient: log Pow: < -4.7
Relative vapour density: no data available
Odour: no data available
Odour Threshold: no data available
Evaporation rate: no data available

10. STABILITY AND REACTIVITY

Chemical stability
May decompose on exposure to air and moisture. Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Do not allow water to enter container because of violent reaction. Avoid moisture. Heat.

Materials to avoid
Strong oxidizing agents, acids, Water

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
no data available

Inhalation LC50
no data available
Dermal LD50
no data available

Other information on acute toxicity
no data available

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

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 Toxic 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
Toxicity to fish
LC50 - Leuciscus idus (Golden orfe) - 10 - 100 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 10 - 100 mg/l - 48 h

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
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
no data available

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1384  Class: 4.2  Packing group: II
Proper shipping name: Sodium dithionite
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 1384  Class: 4.2  Packing group: II  EMS-No: F-A, S-J
Proper shipping name: SODIUM DITHIONITE
Marine pollutant: No

IATA
UN number: 1384  Class: 4.2  Packing group: II
Proper shipping name: Sodium dithionite

15. REGULATORY INFORMATION

OSHA Hazards
Unstable Reactive, Harmful by ingestion.

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

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
Reactivity Hazard, Acute Health Hazard
Massachusetts Right To Know Components
Sodium dithionite
CAS-No. 7775-14-6
Revision Date 2007-03-01

Pennsylvania Right To Know Components
Sodium dithionite
CAS-No. 7775-14-6
Revision Date 2007-03-01

New Jersey Right To Know Components
Sodium dithionite
CAS-No. 7775-14-6
Revision Date 2007-03-01

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
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