

Material Safety Data Sheet

Sodium Dithionite



Section 1. Product and Company Identification

Product name	: Sodium Dithionite
Product code	: SX0530
Synonym	: Sodium Hydrosulfite
Material uses	: Other non-specified industry: Analytical reagent.
Manufacturer	: EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 856-423-6300 Technical Service Monday - Friday: 8:00 - 5:00 PM
Validation date	: 8/31/2006.
Print date	:
In case of emergency	: 800-424-9300 CHEMTREC (USA) 613-996-6666 CANUTEC (Canada) 24 Hours/Day: 7 Days/Week

Section 2. Hazards Identification

Physical state	: Solid. (Powder.)
Odor	: Sulfurous. (Slight.)
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview	: WARNING! HARMFUL IF INHALED OR SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. FLAMMABLE SOLID. HEATS SPONTANEOUSLY IN CONTACT WITH MOISTURE AND MAY IGNITE NEARBY COMBUSTIBLE MATERIALS. Do not ingest. Avoid contact with skin and clothing. Avoid breathing dust. Keep away from heat, sparks and flame. Will react with water or steam to produce heat and toxic fumes. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry	: Inhalation. Ingestion.
Potential acute health effects	
Eyes	: Irritating to eyes.
Skin	: Irritating to skin.
Inhalation	: Toxic by inhalation. Irritating to respiratory system.
Ingestion	: Toxic if swallowed.
Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenicity / Reproductive toxicity	: No known significant effects or critical hazards.
Medical conditions aggravated by over-exposure	: Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation.

See toxicological information (section 11)

Section 3. Composition/Information on Ingredients

United States		
Name	CAS number	% by Weight
Sodium Dithionite	7775-14-6	100

Section 4. First Aid Measures

Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.
Skin contact	: Get medical attention immediately. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

- Inhalation** : Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
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Section 5. Fire Fighting Measures

- Flammability of the product** : Will react with water or steam to produce heat and toxic fumes.
- Products of combustion** : These products are sulfur oxides (SO₂, SO₃ etc.). Some metallic oxides.
- Extinguishing media**
- Suitable** : Use dry chemical or CO₂.
- Not suitable** : Do not use water or foam.
- Special exposure hazards** : Not available.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : May ignite in moist air.
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Section 6. Accidental Release Measures

- Personal precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilled material.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.
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Section 7. Handling and Storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing dust. Keep away from heat, sparks and flame. Will react with water or steam to produce heat and toxic fumes. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.
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Section 8. Exposure Controls/Personal Protection

Consult local authorities for acceptable exposure limits.

- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Personal protection**
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: safety glasses with side-shields
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Body: Recommended: lab coat
- Respiratory** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or

- anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: nitrile rubber
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and Chemical Properties

- Physical state** : Solid. (Powder.)
- Color** : White.
- Odor** : Sulfurous. (Slight.)
- Molecular weight** : 174.1 g/mole
- Molecular formula** : Na₂S₂O₄
- Melting/freezing point** : Decomposition temperature: >300.01°C (572°F)

Section 10. Stability and Reactivity

- Stability and reactivity** : The product is stable.
- Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials, combustible materials, acids and moisture.
May ignite in moist air. Contact with acids liberates toxic gas.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Section 11. Toxicological Information

- Toxicity data**
- Other toxic effects on humans** : Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).
- Specific effects**
- Carcinogenic effects** : No known significant effects or critical hazards.
- Mutagenic effects** : No known significant effects or critical hazards.
- Teratogenicity / Reproductive toxicity** : No known significant effects or critical hazards.
- Sensitization**
- Ingestion** : No known significant effects or critical hazards.
- Inhalation** : Irritating to respiratory system.
- Eyes** : Irritating to eyes.
- Skin** : Irritating to skin.

Section 12. Ecological Information

- Environmental precautions** : No known significant effects or critical hazards.
- Products of degradation** : These products are sulfur oxides (SO₂, SO₃ etc.). Some metallic oxides.
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations


- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport Information

Regulatory information DOT Classification	UN number	Proper shipping name	Class	PG* Label	Additional information
	UN1384	SODIUM DITHIONITE	4.2	II 	Not available.

PG* : Packing group

Section 15. Regulatory Information

United States

HCS Classification : Water-reactive material
Toxic material
Irritating material

U.S. Federal regulations : TSCA 8(b) inventory: Listed
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium Dithonite
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Dithonite : Fire hazard, reactive, Immediate (acute) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations : Pennsylvania RTK: Sodium Dithonite : (generic environmental hazard)
Massachusetts RTK: Sodium Dithonite
New Jersey: Sodium Dithonite

Canada

WHMIS (Canada) : Class B-6: Reactive flammable material
Class D-2B: Material causing other toxic effects (Toxic).

CEPA DSL/CEPA NDSL : CEPA DSL: Sodium Dithonite

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EU regulations

Hazard symbol/symbols :



Risk phrases : R7- May cause fire.
R22- Harmful if swallowed.
R31- Contact with acids liberates toxic gas.

Safety phrases : S2- Keep out of the reach of children.
S7/8- Keep container tightly closed and dry.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of [***].
S43- In case of fire, use [***].

International regulations

International lists : Australia (NICNAS): Sodium Dithonite

China: Sodium Dithonite

Germany water class: Sodium Dithonite

Japan (METI): Sodium Dithonite

Korea (TCCL): Sodium Dithonite

Philippines (RA6969): Sodium Dithonite

Section 16. Other Information

Label requirements

: WARNING!
HARMFUL IF INHALED OR SWALLOWED.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
FLAMMABLE SOLID.
HEATS SPONTANEOUSLY IN CONTACT WITH MOISTURE AND MAY IGNITE
NEARBY COMBUSTIBLE MATERIALS.

National Fire Protection :
Association (U.S.A.)

1 Flammability
Health 2 2 Instability
Special

Notice to reader

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