

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

MSDS No: M00107

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Porphyrin 2 Reagent
Catalog Number: 2187569

HACH LANGE GmbH
Willstätterstrasse 11
40549 Düsseldorf , Germany
+49 -(0)211 -52880

Emergency Telephone Numbers:
(Poison Information Center Main)
(+49 (0) 6131 19240) 24 HR

SDS Number: M00107

Chemical Name: Dithionous acid, disodium salt

Chemical Formula: Na₂S₂O₄

Chemical Family: Reducing Agent

Use of the substance/preparation: Laboratory Reagent

CAS No.: 7775 -14-6

Hazard: Allergen Causes moderate eye irritation. Flammable solid.

Date of MSDS Preparation:

Day: 12

Month: 01

Year: 2006

Additional Emergency Response Numbers: Austria: +49 (0)6131 19240, Belgium: +32 -(0)70 -245245, France: +33 - (0)1 -40370404, Italy: +39 -026101029, Netherlands: +31 -(0)30 -2748888, Switzerland: +41 -(0)1 -2515151

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sodium Hydrosulfite

EEC Number: 2318900

CAS No.: 7775-146

Percent Range: 100,0

Percent Range Units: weight / weight

Ingredient EEC Symbol: Xn - HARMFUL

Ingredient R phrase(s) (R phrase details given in Heading 16): R 22 R 31 R 7

TLV: Not established

PEL: Not established

EU Occupational Exposure Limits: 3 mg/m³, Inhalable dust

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: White powder

Odor: Sulfur -like

EU Symbols: Xn - HARMFUL

R PHRASES: R 7: May cause fire. R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas.

Protective Equipment:

Potential Health Effects:

Eye Contact (EC): Causes moderate irritation

Skin Contact (EC): Causes mild irritation

Skin Absorption (EC): None Reported

Target Organs (SA E): None Reported

Ingestion (EC): May cause: abdominal pain diarrhea circulatory disturbances central nervous system depression allergic respiratory reaction

Target Organs (Ing E): None Reported

Inhalation: May cause: allergic respiratory reaction respiratory tract irritation

Target Organs (Inh E): None Reported

Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions Sulfites are strong sensitizers. Inhalation and ingestion may cause allergic respiratory reactions in asthmatics. Persons with respiratory conditions should take special care when working with products that contain sulfites.

Chronic Effects: None reported

Cancer / Reproductive Toxicity Information:

IARC Listed: No

Additional Cancer / Reproductive Toxicity Information: None reported

Toxicologically Synergistic Products: None reported

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water.

Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Call physician immediately. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. Call physician.

5. FIRE FIGHTING MEASURES

Flammable Properties: Exposure to moisture can result in spontaneous combustion. During a fire, corrosive and toxic gases may be generated by thermal decomposition.

Hazardous Combustion Products: Toxic fumes of: sodium monoxide sulfur oxides.

Fire / Explosion Hazards: May react violently with: strong acids strong oxidizers water

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Water. Carbon dioxide

Extinguishing Media NOT To Be Used: Not applicable Not applicable

Fire Fighting Instructions: Containers can build up pressure if exposed to heat. As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Remove all combustible material from spill area. Remove all ignition and spark-creating sources from the spill area. May be ignited by: damp conditions or water. Cover spilled solid material with sand or other inert material. Stop spilled material from being released to the environment.

Clean-up Technique: Cover with an inert material, such as sand. Carefully mist spill with bleach until saturated.

Working in a large container, cautiously add small portions of the spilled material to cold water with agitation. React the spilled material in bleach at a ratio of 25 mls of 5% Sodium hypochlorite solution (household bleach) to 1 gram of sodium hydrosulfite. Filter to remove solids. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin clothing Do not breathe dust. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Protect from: moisture Keep away from: acids oxidizers

Special Packaging Instructions: Not applicable

Use of the substance/preparation: Laboratory Reagent

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin / Hand Protection: lab coat disposable latex gloves

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin Do not breathe: dust Wash thoroughly after handling. Keep away from: acids/acid fumes oxidizers water moisture

TLV: Not established

PEL: Not established

EU Occupational Exposure Limits: 3 mg/m³, Inhalable dust

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: White powder

Physical State: Solid

Odor: Sulfur -like

pH: of 5% solution=3,04

Vapor Pressure: 597 mmHg @ 20°C

Vapor Density (air = 1): Not applicable

Boiling Point: Not applicable

Melting Point: Decomposes at 55°C; 130°F

Flash Point: Not applicable

Method: Not applicable

Autoignition Temperature: Not available

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Specific Gravity (water = 1): 2,2

Evaporation Rate (water = 1): Not applicable

Volatile Organic Compounds Content: Not available

Partition Coefficient (n -octanol / water): Not available

Solubility:

Water: Decomposes in hot water; slightly soluble in cold water

Acid: Insoluble

Other: Not determined

Metal Corrosivity:

Steel: 0,119 in/yr

Aluminum: 0,002 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Heating to decomposition. Contact with water or steam.

Reactivity / Incompatibility: Incompatible with: acids water (moisture)

Hazardous Decomposition: Contact with acids releases toxic and/or corrosive fumes of: sulfur oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: Oral rat LD50 > 500 mg/kg

LC50: None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

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Ingredient Toxicological Data: --

Not applicable
IARC Listed: No

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: --
Not applicable

13. DISPOSAL CONSIDERATIONS

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Sodium Dithionite

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ICAO Hazard Class: 4,2

ICAO Subsidiary Risk: NA

ICAO UN/ID Number: UN1384

ICAO Packing Group: II

I.M.O.:

I.M.O. Proper Shipping Name: Sodium Dithionite

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I.M.O. Hazard Class: 4,2

I.M.O. Subsidiary Risk: NA

I.M.O. UN Number: UN1384

I.M.O. Packing Group: II

A.D.R.:

A.D.R. Proper Shipping Name: Sodium Dithionite

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A.D.R. Hazard Class: 4,2

A.D.R. Subsidiary Risk: NA

A.D.R. UN -Number: 1384

A.D.R. Packing Group: II

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit Hazard Class: 9 UN Number 3316

15. REGULATORY INFORMATION

National Inventories:

EEC Inventory Status: EINECS Listed: Yes

EEC Number: 2318900

EEC LABEL COPY:

EU Symbols: Xn - HARMFUL

R PHRASES: R 7: May cause fire. R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas.

S PHRASES: S 7/8: Keep container tightly closed and dry. S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 28b: After contact with skin, wash immediately with plenty of soap and water.

S 43b: In case of fire, use dry chemical, alcohol foam or carbon dioxide.

16. OTHER INFORMATION

References: Vendor Information. Technical Judgment. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. TLV's Threshold Limit Values and Biological Exposure Indices for 1992 -1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332 -2983. 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor).

R PHRASE S: R 7: May cause fire. R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas.

Use of the substance/preparation: Laboratory Reagent

Revision Summary: Updates in Section(s) 14,

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

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.

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