

Section 1 - Chemical Product and Company Identification

MSDS Name:

Sicklescreen Phosphate Buffer

Catalog Numbers:

200256

Synonyms:

None Known.

Company Identification:
 Fisher Diagnostics
 Fisher Scientific Company LLC
 8365 Valley Pike
 Middletown, VA 22645-0307
Company Phone Number:

(800) 528-0494

Emergency Phone Number:

(800) 528-0494

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
7732-18-5	High Purity Water	>72	231-791-2		
7758-11-4	Dipotassium phosphate	17.68	231-834-5		
7778-77-0	Dihydrogen potassium phosphate	10.07	231-913-4		
26628-22-8	Sodium azide	<0.01	247-852-1		
74499-23-3	Saponins	<0.01	Not available		

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Clear colorless liquid

Caution! May cause eye, skin, and respiratory tract irritation. The toxicological properties of this material have not been fully investigated.

Target Organs: No data found

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

May cause irritation of the digestive tract.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

Section 4 - First Aid Measures

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not available

NFPA Rating:

(estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. This material contains small quantities of sodium azide which may react with lead or copper plumbing to form metal zide. Continuous build-up of metal azides can present an explosion hazard. Flushing this material down the drain is not recommended.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
High Purity Water	None listed	None listed	None listed
Dipotassium phosphate	None listed	None listed	None listed
Dihydrogen potassium phosphate	None listed	None listed	None listed
Sodium azide	0.29 mg/m ³ Ceiling (as NaN ₃); 0.11 ppm Ceiling (vapor, as hydrazoic acid)	0.1 ppm Ceiling (as HN ₃); 0.3 mg/m ³ Ceiling (as NaN ₃)	None listed

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information**RTECS:**CAS# 7732-18-5: ZC0110000
CAS# 7758-11-4 unlisted
CAS# 7778-77-0: TC6615500
CAS# 26628-22-8: VY8050000
CAS# 74499-23-3 unlisted**LD50/LC50:**CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.
CAS# 7758-11-4:
No information found
CAS# 7778-77-0:
Skin, rabbit: LD50 = >4640 mg/kg.
CAS# 26628-22-8:
Inhalation, mouse: LC50 = 32400 ug/m³
Inhalation, rat: LC50 = 37 mg/m³
Oral, mouse: LD50 = 27 mg/kg
Oral, rat: LD50 = 27 mg/kg
Skin, rabbit: LD50 = 20 mg/kg
Skin, rat: LD50 = 50 mg/kg.
CAS# 74499-23-3:
No information found**Carcinogenicity:**CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7758-11-4: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7778-77-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 26628-22-8: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 74499-23-3: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.**Epidemiology:**

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

CAS# 26628-22-8: waste number P105.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information

US DOT

Canadian TDG

Proper Shipping Name: Not Regulated

Not Regulated

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 26628-22-8: 1000 lb final RQ; 454 kg final RQ

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 7758-11-4 is listed on the TSCA Inventory.

CAS# 7778-77-0 is listed on the TSCA Inventory.

CAS# 26628-22-8 is listed on the TSCA Inventory.

CAS# 74499-23-3 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

CAS# 26628-22-8: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 26628-22-8: 500 lb TPQ (This material is a reactive solid. The TPQ does not default to 10000)

SARA Hazard Categories

CAS# 7778-77-0: immediate.

CAS# 26628-22-8: immediate, delayed, reactive.

CAS# 74499-23-3: immediate, delayed.

SARA Section 313

Sodium azide is not at a high enough concentration to be reportable under Section 313.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State**State Right to Know**

Sodium azide can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

No information found

California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: None listed
Risk Phrases: None listed
Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7758-11-4 is listed on Canada's DSL List.
CAS# 7778-77-0 is listed on Canada's DSL List.
CAS# 26628-22-8 is listed on Canada's DSL List.
CAS# 74499-23-3 is listed on Canada's DSL List.

Canadian WHMIS Classifications

No information found
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 26628-22-8 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

Color information has been
MSDS Creation Date: August 1, 2007
Revision Date: August 1, 2007

Revisions were made in Sections:

2, 3, 5, 6, 9, 10, 11, 14, 16

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.

Section 1 - Chemical Product and Company Identification**MSDS Name:**

Sodium hydrosulfite powder

Catalog Numbers:

200257

Synonyms:

Sodium hydrosulphite; Sodium sulfoxylate; Sodium dithionite.

Company Identification:Fisher Diagnostics
Fisher Scientific Company LLC
8365 Valley Pike
Middletown, VA 22645-0307**Company Phone Number:**

(800) 528-0494

Emergency Phone Number:

(800) 528-0494

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS
7775-14-6	Sodium dithionite	100	231-890-0

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: White crystalline powder

Warning! Self-heating; exposure to air may cause substance to self-heat without an energy supply. Spontaneously combustible material. Exposure to small amounts of water causes spontaneous ignition, & the resulting decomposition causes SO₂ to be released. Large amounts of water will dissolve the product but the stability of solutions is limited & they quickly oxidize when exposed to air. Strong reducing agent. Fire and explosion risk in contact with oxidizing agents. Causes eye irritation. May cause skin and respiratory tract irritation. May cause central nervous system effects. Contact with acids liberates toxic gas, sulfur dioxide. Heat sensitive.

Target Organs: Central nervous system, Eyes

Potential Health Effects

Eye:

May cause lacrimation (tearing), blurred vision, and photophobia. May cause chemical conjunctivitis and corneal damage.

Skin:

May cause skin irritation and possible burns.

Ingestion:

May cause nausea, vomiting, abdominal pain, and increased salivation.

Inhalation:

Inhalation of dust may cause respiratory tract irritation. Olfactory fatigue may occur.

Chronic:

No information found.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Treat symptomatically

Section 5 - Fire Fighting Measures

General Information:

Evacuate area and fight fire from a safe distance. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Combustible solid. May decompose explosively when heated or involved in a fire. Powerful reducing agent. Closed containers may rupture violently when heated. Heats spontaneously in contact with air, especially moist air, and may ignite surrounding combustible materials.

Extinguishing Media:

Use dry sand or earth to smother fire. If water is the only media available, use in flooding amounts.

Autoignition Temperature:

> 80°C (> 176.00°F)

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not applicable.

NFPA Rating:

(estimated) Health: 2; Flammability: 1; Instability: 2

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Place under an inert atmosphere. Do not get water inside containers. Control runoff and isolate discharged material for proper disposal.

Section 7 - Handling and Storage

Handling:

Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Handle under an inert atmosphere. Store protected from air. Do not allow contact with water. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Store protected from moisture. Store under an inert atmosphere. Isolate from oxidizing materials and acids. Should not be exposed to temperatures above 122°F (50°C). Do not store in an area equipped with emergency water sprinklers. Consider equipping storage facilities with sulfur dioxide detectors.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Sodium dithionite	None listed	None listed	None listed

OSHA Vacated PELs

Personal Protective Equipment

Eyes:

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:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: White

Odor: Penetrating odor - sulfur dioxide odor

pH: No information found

Vapor Pressure: No information found

Vapor Density: No information found

Evaporation Rate: No information found

Viscosity: No information found

Boiling Point: No information found

Freezing/Melting Point: 55°C

Decomposition Temperature: 70-130°C

Solubility in water: 25 g/100ml (20°C)

Specific Gravity/Density: 1.4

Molecular Formula: Na₂O₄S₂

Molecular Weight: 174.10

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Ignition sources, dust generation, exposure to air, excess heat, moisture, high humidity

Incompatibilities with Other Materials

Strong oxidizing agents, strong acids

Hazardous Decomposition Products

Carbon monoxide, oxides of sulfur, carbon dioxide

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 7775-14-6 unlisted

LD50/LC50:

CAS# 7775-14-6:

No information found

Carcinogenicity:

CAS# 7775-14-6: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

Section 12 - Ecological Information

Ecotoxicity:

No information found

Environmental:

No information found

Physical:

No information found

Other:

COD (per g of sodium dithionite) = 210 mg O₂.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information

US DOT**Canadian TDG**

Proper Shipping Name: SODIUM DITHIONITE
Hazard Class: 4.2
UN Number: UN1384
Packing Group: II

SODIUM DITHIONITE
 4.2
 UN1384
 II

Section 15 - Regulatory Information

US Federal**TSCA**

CAS# 7775-14-6 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

CAS# 7775-14-6: immediate, fire, reactive.

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State**State Right to Know**

Sodium dithionite can be found on the following state Right-to-Know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

European/International Regulations**European Labelling in Accordance with EC Directives:**

Hazard Symbols: XN

Risk Phrases: R 22 Harmful if swallowed.

R 31 Contact with acids liberates toxic gas.

R 7 May cause fire.

Safety 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 28A After contact with skin, wash immediately with plenty of water.

S 43E In case of fire, use dry sand (never use water).

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7775-14-6 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of B6.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

No information found

Section 16 - Other Information

No information found

MSDS Creation Date: August 1, 2007

Revision Date: August 1, 2007

Revisions were made in Sections:

14

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.