

**Material Safety Data Sheet**
Diluting Fluid (Barbital Buffered Saline)**Section 1 - Chemical Product and Company Identification****MSDS Name:**

Diluting Fluid (Barbital Buffered Saline)

Catalog Numbers:

100644, 176560, 23176560, 250644

Synonyms:

None.

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:

800-424-9300

CHEMTREC (International):

703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS
7732-18-5	Water	Balance	231-791-2
7647-14-5	Sodium chloride	0.687%	231-598-3
68-04-2	Trisodium citrate anhydrous	0.147	200-675-3
144-02-5	Sodium barbital	0.118%	205-613-9
26628-22-8	Sodium azide	0.013%	247-852-1

Section 3 - Hazards Identification**EMERGENCY OVERVIEW***Appearance: clear, colorless liquid**Caution! May cause eye, skin, and respiratory tract irritation.**Target Organs: none.***Potential Health Effects**

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Contact may cause transient eye irritation.

Skin:

May cause skin irritation.

Ingestion:

Ingestion of large amounts may cause gastrointestinal irritation.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

Section 4 - First Aid Measures**Eyes:**

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

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

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.

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.

Extinguishing Media:

For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Autoignition Temperature:

Not applicable.

Explosion Limits:

Lower: Not available. Upper: Not available.

Flash Point:

Not applicable.

NFPA Rating:

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



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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.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage:

Store in a cool, dry place. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sodium chloride	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Trisodium citrate anhydrous	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sodium barbital	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sodium azide	0.29 mg/m3 Ceiling (as NaN ₃); 0.11 ppm Ceiling (vapor, as hydrazoic acid)	0.1 ppm Ceiling (as HN ₃); 0.3 mg/m3 Ceiling (as NaN ₃)	None of the components are on this list.

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.



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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: Liquid

Color: clear, colorless

Odor: Odorless.

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: Not available.

Freezing/Melting Point: No information found

Decomposition Temperature: No information found

Solubility in water: Soluble in water.

Specific Gravity/Density: No information found

Molecular Formula: Not applicable.

Molecular Weight: No information found

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Strong oxidizing agents.

Hazardous Decomposition Products

No data available.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 7647-14-5: VZ4725000.

CAS# 68-04-2: GE8300000.

CAS# 144-02-5: CQ3850000.

CAS# 26628-22-8: VY8050000.

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CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7647-14-5:

Draize test, rabbit, eye: 100 mg Mild

Draize test, rabbit, eye: 100 mg/24H Moderate

Draize test, rabbit, eye: 10 mg Moderate

Draize test, rabbit, skin: 50 mg/24H Mild

Draize test, rabbit, skin: 500 mg/24H Mild

Inhalation, rat: LC50 = >42 gm/m³/1H

Oral, mouse: LD50 = 4 gm/kg

Oral, rat: LD50 = 3000 mg/kg

Skin, rabbit: LD50 = >10 gm/kg.

CAS# 68-04-2:

No information foundCAS# 144-02-5:

Oral, mouse: LD50 = 800 mg/kg

Oral, rat: LD50 = 600 mg/kg.

CAS# 26628-22-8:

Inhalation, mouse: LC50 = 32400 ug/m³Inhalation, 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.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7647-14-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 68-04-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 144-02-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 26628-22-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

No information available.

Teratogenicity:

No information available.

Reproductive:

No information available.

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

See actual entry in RTECS for complete information.

Section 12 - Ecological Information**Ecotoxicity:**

No information available.

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No information reported.

Physical:

No information available.

Other:

None.

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:** No information found

No information found

Hazard Class:**UN Number:****Packing Group:****Section 15 - Regulatory Information****US Federal****TSCA**

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

CAS# 7647-14-5 is listed on the TSCA Inventory.

CAS# 68-04-2 is listed on the TSCA Inventory.

CAS# 144-02-5 is not listed on the TSCA Inventory. It is for research and development use only.

CAS# 26628-22-8 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.



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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 pounds for non-powder, non-molten, non-solvent form)

SARA Hazard Categories

CAS# 7647-14-5: acute.

CAS# 144-02-5: acute, chronic.

CAS# 26628-22-8: acute, chronic, reactive.

CERCLA/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.

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.

California Regulations

CAS# 7732-18-5: No information found

CAS# 7647-14-5: No information found

CAS# 68-04-2: No information found

CAS# 144-02-5: No information found

CAS# 26628-22-8: No information found

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

Hazard Symbols:

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

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Diluting Fluid (Barbital Buffered Saline)**WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information found
CAS# 7647-14-5: 0
CAS# 68-04-2: 0
CAS# 144-02-5: 2
CAS# 26628-22-8: 2

United Kingdom Occupational Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7647-14-5 is listed on Canada's DSL List.
CAS# 68-04-2 is listed on Canada's DSL List.
CAS# 144-02-5 is listed on Canada's DSL List.
CAS# 26628-22-8 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7647-14-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 68-04-2 is not listed on Canada's Ingredient Disclosure List.
CAS# 144-02-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 26628-22-8 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 26628-22-8: OEL-AUSTRALIA:TWA 0.1 ppm (0.3 mg/m3)
OEL-BELGIUM:STEL 0.11 ppm (0.3 mg/m3)
OEL-DENMARK:TWA 0.3 mg/m3
OEL-FINLAND:TWA 0.1 ppm (0.3 mg/m3);STEL 0.3 ppm (0.9 mg/m3)
OEL-FRANCE:STEL 0.1 ppm (0.3 mg/m3)
OEL-GERMANY:TWA 0.07 ppm (0.2 mg/m3)
OEL-THE NETHERLANDS:TWA 0.1 ppm (0.3 mg/m3)
OEL-SWITZERLAND:TWA 0.07 ppm (0.2 mg/m3)
OEL-UNITED KINGDOM:TWA 0.1 ppm (0.3 mg/m3);STEL
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Other Information

Color information has been
MSDS Creation Date: September 2, 1997
Revision Date: August 1, 2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.