

### Material Safety Data Sheet

Creation Date 04-Jan-2010

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Revision Number 1

#### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Cholesterol Reagent</b>
<b>Cat No.</b>	<b>TR13315, TR13303, UV13310050-BP, BU1331-25LBP, TR13521, UV13510059-BP</b>
<b>Synonyms</b>	No information available.
<b>Recommended Use</b>	In vitro diagnostic
<b>Company</b>	<b>Emergency Telephone Number</b>
Fisher Diagnostics	Chemtrec US: (800) 424-9300
A Division of Fisher Scientific Company, LLC	Chemtrec EU: (202) 483-7616
A Part of Thermo Fisher Scientific, Inc.	
8365 Valley Pike	
Middletown, VA 22645-1905	
Tel: (800) 528-0494	

#### 2. HAZARDS IDENTIFICATION

##### WARNING!

##### Emergency Overview

Handle as potentially infectious. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause central nervous system effects. Adverse reproductive effects have occurred in humans.. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Appearance** White

**Physical State** Powder

**odor** No information available

**Target Organs** Respiratory system, Eyes, Skin, Central nervous system (CNS), Heart, Liver, Kidney, spleen, Blood, Reproductive System

##### Potential Health Effects

##### Acute Effects

##### Principle Routes of Exposure

**Eyes**

Irritating to eyes.

**Skin**

Irritating to skin. May be harmful in contact with skin.

**Inhalation**

Irritating to respiratory system. May be harmful if inhaled.

**Ingestion** Harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic Effects** Adverse reproductive effects have occurred in humans.. Tumorigenic effects have been reported in experimental animals.. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Haz/Non-haz

Component	CAS-No	Weight %
4-Morpholinepropanesulfonic acid, .beta.-hydroxy-	68399-77-9	> 20%
3-Morpholino-2-hydroxypropanesulfonic acid, sodium salt (MOPSO sodium salt)	79803-73-9	> 15%
Sodium azide	26628-22-8	< 0.5%
Cholan-24-oic acid, 3,7,12-trihydroxy-, monosodium salt, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-	361-09-1	> 15%
Benzoic acid, 4-hydroxy-, monosodium salt	114-63-6	< 10%
Magnesium sulfate	7487-88-9	< 10%
4-Aminoantipyrine	83-07-8	< 2%
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	9002-93-1	< 5%
D-Mannitol	69-65-8	< 15%
Bovine Serum Albumin	9048-46-8	< 2%
Lipase, lipoprotein	9004-02-8	< 2%
Oxidase, cholesterol	9028-76-6	< 2%
Peroxidase	9003-99-0	< 2%

### 4. FIRST AID MEASURES

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Obtain medical attention.

**Ingestion** Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point Method** Not applicable  
No information available.

**Autoignition Temperature Explosion Limits** No information available.

<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Suitable Extinguishing Media</b>	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..
<b>Unsuitable Extinguishing Media</b>	No information available.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	No information available.

**Specific Hazards Arising from the Chemical**  
 Thermal decomposition can lead to release of irritating gases and vapors.

**Protective Equipment and Precautions for Firefighters**  
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**NFPA**                      **Health** 2                      **Flammability** 0                      **Instability** 0                      **Physical hazards** N/A

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Clean with disinfectants. Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Wear personal protective equipment. Handle as potentially infectious. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 2° and 8 °C.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Measures**                      Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium azide	Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm	Skin (Vacated) Ceiling: 0.1 ppm (Vacated) Ceiling: 0.3 mg/m <sup>3</sup>	Ceiling: 0.3 mg/m <sup>3</sup> Ceiling: 0.1 ppm

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Sodium azide	Ceiling: 0.3 mg/m <sup>3</sup> Ceiling: 0.11 ppm		CEV: 0.1 ppm CEV: 0.26 mg/m <sup>3</sup>

**NIOSH IDLH:** Immediately Dangerous to Life or Health

#### Personal Protective Equipment

##### Eye/face Protection

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 and body protection Respiratory Protection

Wear appropriate protective gloves and clothing to prevent skin exposure  
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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder
Appearance	White
odor	No information available
Odor Threshold	No information available.
pH	6.60 - 6.80 @ 20°C
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	Not applicable
Melting Point/Range	No information available.
Decomposition temperature °C	No information available.
Flash Point	Not applicable
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	Miscible with water
log Pow	No data available

## 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents, Strong acids
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Sulfur oxides
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.

## 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium azide	27 mg/kg ( Rat )	20 mg/kg ( Rabbit ) 50 mg/kg ( Rat )	Not listed
Cholan-24-oic acid, 3,7,12-trihydroxy-, monosodium salt, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-	2400 mg/kg ( Mouse )	Not listed	Not listed
Benzoic acid, 4-hydroxy-, monosodium salt	2200 mg/kg ( Mouse )	Not listed	Not listed
4-Aminoantipyrine	1700 mg/kg ( Rat )	Not listed	Not listed
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	1800 mg/kg ( Rat )	Not listed	Not listed
D-Mannitol	13500 mg/kg ( Rat )	Not listed	Not listed

**Irritation** Irritating to eyes, respiratory system and skin

**Toxicologically Synergistic Products** No information available.

### Chronic Toxicity

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.

**Mutagenic Effects** Mutagenic effects have occurred in humans.

**Reproductive Effects** Adverse reproductive effects have occurred in humans..

**Developmental Effects** Developmental effects have occurred in experimental animals.

**Teratogenicity** Teratogenic effects have occurred in humans..

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

### Endocrine Disruptor Information

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Group III Chemical	Not applicable	Not applicable

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Magnesium sulfate	EC50 72 h 2700 mg/L	Not listed	= 84000 mg/L EC50 Photobacterium phosphoreum 30 min	EC50 24 h 1700 mg/L

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available

**Mobility** No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

### 14. TRANSPORT INFORMATION

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

### 15. REGULATORY INFORMATION

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
4-Morpholinepropanesulfonic acid, .beta.-hydroxy-	X	-	X	269-989-6	-		-	-	-	-	-
Sodium azide	X	X	-	247-852-1	-		X	X	X	X	KE-31357 X
Cholan-24-oic acid, 3,7,12-trihydroxy-, monosodium salt, (3.alpha.,5.beta.,7.alpha.,12.alpha.)-	X	X	-	206-643-5	-		-	-	X	X	KE-34293 X
Benzoic acid, 4-hydroxy-, monosodium salt	X	X	-	204-051-1	-		-	X	-	X	KE-31490 X

15. REGULATORY INFORMATION											
Magnesium sulfate	X	X	-	231-298-2	-		X	X	X	X	KE-22752 X
4-Aminoantipyrine	X	X	-	201-452-3	-		X	X	X	X	KE-01297 X
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	XU	X	-	-	-		X	-	X	X	KE-33568 X
D-Mannitol	X	X	-	200-711-8	-		X	X	X	X	KE-23061 X
Bovine Serum Albumin	XU	X	-	232-936-2	-		X	-	X	X	KE-05-0011 X
Lipase, lipoprotein	XU	X	-	232-669-1	-		-	-	X	X	KE-22542 X
Oxidase, cholesterol	XU	X	-	232-842-1	-		-	-	X	-	KE-05953 X
Peroxidase	XU	-	X	232-668-6	-		-	-	X	X	KE-28159 X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Sodium azide	26628-22-8	< 0.5%	1.0

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard No  
 Chronic Health Hazard No  
 Fire Hazard No

**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**Clean Water Act**  
 Not applicable

**Clean Air Act**  
 Not applicable

**OSHA**  
 Not applicable

**CERCLA**  
 This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium azide	1000 lb	1000 lb

**California Proposition 65**  
 This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium azide	X	X	X	-	X

**U.S. Department of Transportation**  
 Reportable Quantity (RQ): Y  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**  
 This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Canada**

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

**WHMIS Hazard Class**  
 D1B Toxic materials  
 D2A Very toxic materials  
 D2B Toxic materials



**16. OTHER INFORMATION**

**Prepared By** Regulatory Affairs  
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**Revision Summary** "\*\*\*\*", and red text indicates revision

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**