

MATERIAL SAFETY DATA SHEET

Version	2.0	Issue Date	15 Jul 2011
Revision Date	New		
Supersedes	N/A	American National Standard	ANSI Z400.1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Product Name	END POINT CHROMOGENIC KIT
Brand:	Endosafe
Product Codes	R160
Intended Use	R&D/Experimental use only
Manufacturer	Charles River
Division	Endotoxin and Microbial Detection
Address	1023 Wappoo Rd Suite 43-B Charleston, SC 29407
Telephone	(843) 402-4900
Emergency	(843) 402-4900

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview Lipopolysaccharides are highly pyrogenic. Administered intravenously, the minimal pyrogenic dose in humans has been estimated at 4 ng/kg. Their toxicological properties have not been fully investigated.

OSHA Hazards No OSHA hazards - This product contains no substances which at their given concentrations and intended use are considered hazardous. For in vitro purposes only, not for use in humans.

NFPA Rating Health = 1, Fire = 1, Instability = 0
HMIS Classification Health = 1, Flammability = 1, Physical hazards = 0

Potential Health Effects

Eyes	May cause eye irritation
Skin	May be harmful if absorbed through skin, may cause skin irritation.
Inhalation	May be harmful if inhaled, may cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS#</u>	<u>RTECS#</u>	<u>EC#</u>	<u>Concentration</u>
Endochrome™ LAL Reagent				
Hemocyte, limulus polyphemus, lysate	68606-22-4	-	271-731-2	> 80%
S-2423 Substrate				
Mannitol	69-65-8	OP2060000	200-711-8	~ 80%
Synthetic chromophoric peptide	-	-	-	~ 20%
Buffer (0.05 M Tris, pH 9.0)				
Water	7732-18-5	ZC0110000	231-791-2	> 98%
Tris (hydroxymethyl) aminomethane	77-86-1	TY2900000	201-064-4	< 1%
2-Amino-2-(hydroxymethyl)-1, 3-propanediol hydrochloride	1185-53-1	-	214-684-5	< 1%
E. coli Control Standard Endotoxin (CSE)				
Lipopolysaccharides, from Escherichia coli 055:B5	93572-42-0	JZ2650000	297-473-0	≤ 0.5 µg
LAL Reagent Water				
Sterile Water	7732-18-5	ZC0110000	231-791-2	100%

SECTION 4: FIRST AID MEASURES

Eye contact	Flush eyes with plenty of water.
Skin contact	Wash off with soap and plenty of water.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water.
Inhalation	Move person into fresh air. If not breathing give artificial respiration consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

Flash point	Not available
Ignition temperature	Not available
Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Fire fighting procedures	Wear self contained breathing apparatus for fire fighting if necessary

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas.
Environmental precautions	Prevent product from entering drains.
Methods for cleaning	Use a wet sponge or damp cloth. Keep in suitable, closed containers for disposal

SECTION 7: HANDLING AND STORAGE

Handling	Wear personal protective equipment and avoid contact with skin and eyes. Good laboratory technique should be used in handling product.
Storage	Recommended storage temperature: 2 - 8 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	Contains no substances with occupational exposure limit values
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Eye protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection	Wear appropriate protective gloves and clothes to prevent skin exposure.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

	LAL Reagent	S2423 Substrate	Buffer	E. coli	Water
Physical state	Powder, lyophilized	Powder, lyophilized	Clear liquid	Powder, lyophilized	Clear liquid
Odor	Not available	Not available	Odorless	Not available	Odorless
pH	Not available	Not available	9.0	Not available	6–8 (25 °C)
Melting/freezing point	Not available	Not available	Not available	Not available	0.0 °C
Boiling point	Not available	Not available	Not available	Not available	212 °C
Flash point	Not available	Not available	Not available	Not available	Not applicable
Evaporation Rate	Not available	Not available	Not available	Not available	Not available
Flammability	Not available	Not available	Not available	Not available	Not applicable
Upper/lower flammability limits	Not available	Not available	Not available	Not available	Not applicable
Vapor pressure	Not available	Not available	Not available	Not available	23.8mm/Hg (25 °C)
Vapor density	Not available	Not available	Not available	Not available	23 gm/m ³ (25 °C)
Specific gravity	Not available	Not available	Not available	Not available	0.997g/cm ³ (25 °C)
Water solubility	Soluble	Soluble	Soluble	Soluble	Soluble
Partition coefficient: n-octanol/water	Not available	Not available	Not available	Not available	Not applicable
Decomposition temperature	Not available	Not available	Not available	Not available	Not available
Viscosity	Not applicable	Not applicable	Not available	Not applicable	1 cPs (20 °C)

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Materials to avoid	Strong acids, bases and oxidizers
Conditions to avoid	Excessive heat
Hazardous polymerization	Will not occur
Hazardous decomposition	Hazardous decomposition products formed under fire conditions include hydrogen chloride gas and oxides of carbon and nitrogen (NO _x).

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity (LD50)

Oral	Studies with a similar E. coli serotype report a dose of 48.3 mg/kg [Rat]
Intraperitoneal	7.6 mg/kg [Rat]

Chronic exposure	Not available
Irritation and corrosion	Not available
Carcinogenic effects	
IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Mutagenic effects	Not available
Reproductive toxicity	Studies of pregnant rats treated intraperitoneally with similar E. coli endotoxin showed an increase in fetal hydrocephalus and neuronal necrosis. Intravenous doses up to 1000 µg resulted in resorptions and dead fetuses but no increase in congenital defects. Similar studies involving guinea pigs showed an increase in malformations and resorptions when given doses of 10 to 20 µg/kg intravenously.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Not available
Persistence/degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	Not available
Other adverse effects	Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Product	Observe all federal, state, and local environmental regulations
Contaminated packaging	Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT	Not regulated hazardous material
IATA	Not regulated hazardous material
IMDG	Not regulated hazardous material

SECTION 15: REGULATORY INFORMATION

OSHA Hazards	No OSHA hazards.
TSCA Status	This product contains the following component that is not on the TSCA inventory: Substrate S2423 (synthetic chromophoric peptide)
SARA 302 Components	No components of this kit are subject to the reporting requirements of SARA Title III, Section 302.
SARA 311/312 Hazards	No components of this kit are subject to the reporting requirements of SARA Title III, Section 311/312.
SARA 313 Components	This kit does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
DSL Status	Substrate S2423 (synthetic chromophoric peptide) is not specified on the DSL/NDSL list and has been classified according to the hazard criteria of the CPR and contains all of the information required by the CPR.
WHMIS Classification	Not WHMIS controlled.

SECTION 16: OTHER INFORMATION

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Charles River Endosafe makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Charles River Endosafe be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.

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