

# MATERIAL SAFETY DATA SHEET

<b>Version</b>	2.0	<b>Issue Date</b> 15 Jul 2011
<b>Revision Date</b>	New	
<b>Supersedes</b>	N/A	<b>According to Regulation (EC) No. 1907/2006</b>

## 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** 001 843 402 4900  
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## SECTION 2: HAZARDS IDENTIFICATION

**Classification** Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

**Label elements** None

**Hazard statements** None

**Other hazards** 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 - For in vitro purposes only, not for use in humans.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS#</u>	<u>RTECS#</u>	<u>EC#</u>	<u>Concentration</u>
<b>Endochrome™ LAL Reagent</b>				
Hemocyte, limulus polyphemus, lysate	68606-22-4	-	271-731-2	> 80%
<b>S-2423 Substrate</b>				
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
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**LAL Reagent Water**

Sterile Water	7732-18-5	ZC0110000	231-791-2	100%
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**SECTION 4: FIRST AID MEASURES**

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

**SECTION 5: FIRE-FIGHTING MEASURES**

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

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

**SECTION 7: HANDLING AND STORAGE**

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

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering measures</b>	Contains no substances with occupational exposure limit values
<b>Respiratory protection</b>	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).
<b>Eye protection</b>	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothes to prevent skin exposure.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practices.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

## SECTION 10: STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
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<b>Materials to avoid</b>	Strong acids, bases and oxidizers
<b>Conditions to avoid</b>	Excessive heat
<b>Hazardous polymerization</b>	Will not occur
<b>Hazardous decomposition</b>	Hazardous decomposition products formed under fire conditions include hydrogen chloride gas and oxides of carbon and nitrogen (NOx).

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute toxicity (LD50)

<b>Oral</b>	Studies with a similar E. coli serotype report a dose of 48.3 mg/kg [Rat]
<b>Intraperitoneal</b>	7.6 mg/kg [Rat]
<b>Skin corrosive/Irritant</b>	Not available
<b>Serious eye damage/Irritation</b>	Not available
<b>Respiratory sensitization</b>	Not available
<b>Germ cell mutagenicity</b>	Not available

### Carcinogenicity

<b>IARC</b>	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.
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### 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.

**Specific target organ systemic toxicity (single exposure)** Not available

**Specific target organ systemic toxicity (repeated exposure)** Not available

**Aspiration hazard** Not available

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity</b>	Not available
<b>Persistence/degradability</b>	Not available
<b>Bioaccumulative potential</b>	Not available
<b>Mobility in soil</b>	Not available
<b>PBT and vPvB assessment</b>	Not available

### SECTION 13: DISPOSAL CONSIDERATIONS

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

### SECTION 14: TRANSPORT INFORMATION

<b>ADR/RID</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

### SECTION 15: REGULATORY INFORMATION

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

### 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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