Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier
Product Name: Gastroccult® Developer
Part Number: 66115
Series Name: 66000 Series

1.2 Relevant identified uses of the substance or mixture and uses advised against
Product Use: For In Vitro Diagnostic Use. See product literature for details.

1.3 Details of supplier of the safety data sheet
Manufacturer: Beckman Coulter, Inc.
250 S. Kraemer Blvd
Brea, CA 92821, U.S.A.
Tel: 800-854-3633

EC REP Address: Beckman Coulter Ireland Inc.
Mervue Business Park
Mervue, Galway, Ireland
Tel: 353 91 774068

E-mail address: SDSNT@beckman.com

1.4 Emergency telephone number
Telephone number (24H): Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

Distributor and Emergency Phone No.: Refer to attached list, Document ID: 472050, for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture
Product Description: Mixture
Colorless; Clear; Liquid; Alcohol odor

Classification according to EC Directives 1999/45/EC and 67/548/EEC
Xn;R10-20/21/22-68/20/21/22

US OSHA
Hazardous

WHMIS
Exempt

Physical Hazards
Vapors of flammable ingredients are heavier than air and may travel to an ignition source, ignite and flash back.

Potential Health Effects
May cause eye, skin and respiratory tract irritation and central nervous system depression with headache, dizziness, nausea and unconsciousness.

Summary
Harmful by inhalation, in contact with skin and if swallowed.
Section 2 Hazards Identification (Continued)

2.2 Label Elements

According to EC Directives (1999/45/EC and 67/548 EEC)

Harmful Risk and Safety Phrases

R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
S16 Keep away from sources of ignition - No smoking.
S36/37 Wear suitable protective clothing and gloves.
S7 Keep container tightly closed.

2.3 Other Hazard

None identified

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Hazardous Ingredients:</th>
<th>Hazard Classification of Pure Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>% by wt.</td>
</tr>
<tr>
<td>Ethanol-methanol mix</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>&lt;5</td>
</tr>
<tr>
<td>octylphenoxy-poly(ethoxyethanol)</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

See section 8 for available Occupational exposure limits
See Section 15 for additional regulatory information
See Section 16 for hazard class, hazard statements and risk phrase description
Section 4 First Aid Measures

4.1 Description of first aid measures

- **Inhalation**: If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

- **Eye Contact**: If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.

- **Skin Contact**: In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.

- **Ingestion**: If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

5.1 Extinguishing Media

Use extinguishing media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture

- **Special Fire and Explosion Hazards**: Vapors form explosive mixtures with air. Vapors are heavier than air; fire may flash from ignition source back along vapor trail.

- **Hazardous Combustion Products**: Depending upon fire conditions, combustion products may range from irritants and asphyxiants to acutely toxic gases.

5.3 Advice for fire fighters

- **Protective Equipment**: Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

5.4 Additional information

None

Section 6 Accidental Release Measures

6.1 Personal precaution, protective equipment and emergency procedures

- **Personal Precautions**: Use good laboratory procedures; avoid eye and skin contact.

6.2 Environmental Precautions

Contain spill to prevent migration.
Section 6 Accidental Release Measures (Continued)

6.3 Methods and material for containment and cleaning up

Spill and Leak Procedures Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

6.4 Reference to other sections Refer sections 8 and 13.

Section 7 Handling and Storage

7.1 Precautions for safe handling Use good laboratory procedures; avoid eye and skin contact.

7.2 Conditions for safe storage, including any incompatibilities

To maintain efficacy, store according to the instructions in the product labeling. Keep away from incompatible material (see Section 10).

7.3 Specific end uses No data available.

Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA

Hydrogen Peroxide
CAS # 7722-84-1

1 ppm TWA; 1.4 mg/m3 TWA

ACGIH

Hydrogen Peroxide
CAS # 7722-84-1

1 ppm TWA

DFG MAK

Hydrogen Peroxide
CAS # 7722-84-1

0.5 ppm Peak; 0.71 mg/m3 Peak; 0.5 ppm TWA MAK; 0.71 mg/m3 TWA MAK

Ireland

Hydrogen Peroxide
CAS # 7722-84-1

1 ppm TWA; 1.5 mg/m3 TWA; 2 ppm STEL; 3 mg/m3 STEL

NIOSH

Hydrogen Peroxide
CAS # 7722-84-1

75 ppm IDLH; 1 ppm TWA; 1.4 mg/m3 TWA

Japan None established

8.2 Exposure controls

Engineering Controls No special engineering controls are required. Use with good general ventilation.

Eye Protection Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.
Section 8 Exposure Controls and Personal Protection (Continued)

Skin Protection
Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact.

Respiratory Protection
Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
<th>Specific Gravity</th>
<th>0.90 @20°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless</td>
<td>Solubility</td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>Clear</td>
<td>Water</td>
<td>Miscible</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol odor</td>
<td>Organic</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>5-5.5</td>
<td>Coefficient of Water/Oil Distribution</td>
<td>Not determined</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not determined</td>
<td>Autoignition Temp.</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&lt; 100°C (212°F)</td>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>21°C (69.8°F)</td>
<td>Percent Volatiles</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td>Vapor Pressure</td>
<td>18 mm Hg @19°C</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Not applicable</td>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Not determined</td>
<td>Explosive Properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.6 (air=1)</td>
<td>Oxidizing Properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.2 Other Information
None

Section 10 Stability and Reactivity

10.1 Reactivity
No data available.

10.2 Chemical Stability
Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to Avoid
Avoid contact with incompatible materials.

10.5 Incompatible materials
Strong bases
Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50 Rat 3000 mg/kg</th>
<th>Inhalation LC50 Rat 2 mg/L 4 h; Oral LD50 Rat 801 mg/kg; Dermal LD50 Rat 4060 mg/kg; Dermal LD50 Rabbit 2000 mg/kg</th>
<th>Oral LD50 Rat 4190 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric Acid CAS # 77-92-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen Peroxide CAS # 7722-84-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>octylphenoxypoly(ethoxyethanol) CAS # 9036-19-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Primary Routes of Exposure

- Eye contact, ingestion, inhalation, and skin contact.

Skin/Respiratory sensitization

Exposure may result in irritation of skin, eyes, and mucous membranes.

Carcinogenicity

This product does not contain a reportable concentration (≥ 0.1%) of any ingredient listed as carcinogen by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Mutagenicity

None identified

Reproductive Toxicity

Reproductive effects have been reported in animal studies.

Potential Effects of Acute Exposure

May cause irritation or burning of skin and eyes by contact. Inhalation and ingestion of large volumes may cause burning of mucous membrane, respiratory irritation, and central nervous system depression.

Potential Effects of Chronic Exposure

Chronic exposure may result in effects similar to those described for acute exposure. Frequent or long-term contact may dry out the skin resulting in dermatitis.

Symptoms of Overexposure

Symptoms of overexposure may include: throat irritation and coughing; dry, red, cracked skin; red irritated eyes; headache, drowsiness, dizziness, stupor; convulsions and coma.

Conditions Aggravated by Exposure

Individuals with eye and skin disorders may find these conditions aggravated by exposure to this product.

Individuals with eye, kidney, liver and cardiovascular, nervous and respiratory system disorders may find these conditions aggravated by exposure to this product.

Other Information

None identified

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species

- 96 h LC50 Lepomis macrochirus: 1516 mg/L [static]
- 96 h LC50 Pimephales promelas: 16.4 mg/L; 96 h LC50 Lepomis macrochirus: 18-56 mg/L [static]; 96 h LC50 Oncorhynchus mykiss: 10.0-32.0 mg/L [static]
Section 12 Ecological Information (Continued)

<table>
<thead>
<tr>
<th>Component</th>
<th>EC50 Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microtox</td>
<td>No information available.</td>
</tr>
<tr>
<td>Water Flea</td>
<td>72 h EC50 Daphnia magna: 120 mg/L</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>72 h EC50 Daphnia magna: 120 mg/L</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>24 h EC50 Daphnia magna: 7.7 mg/L; 48 h EC50 Daphnia magna: 18 - 32 mg/L (Static)</td>
</tr>
<tr>
<td>Fresh Water Algae</td>
<td>72 h EC50 Chlorella vulgaris: 2.5 mg/L</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability No information available.

12.3 Bioaccumulation No information available.

12.4 Mobility in soil No information available.

12.5 Results of PBT and vPvB assessment Not applicable

12.6 Other Adverse Effects No information available.

Section 13 Disposal Considerations

13.1 Waste treatment methods

Product Waste Disposal Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

13.2 Additional information None

Section 14 Transport Information

<table>
<thead>
<tr>
<th>Shipping Information</th>
<th>IATA</th>
<th>IMDG</th>
<th>US DOT</th>
<th>European ADR</th>
<th>Canadian TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 Shipping Name</td>
<td>Alcohols, n.o.s. (Ethanol methanol solution)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.3 Hazard Class</td>
<td>Flammable</td>
<td>Flammable</td>
<td>Flammable</td>
<td>Flammable</td>
<td>Flammable</td>
</tr>
<tr>
<td>Subsidiary Risk</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Classification Code</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>F1</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>A3</td>
<td>274</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Additional information

<table>
<thead>
<tr>
<th>IATA ERG Code</th>
<th>EmS</th>
<th>NAERG Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L</td>
<td>F-E, S-D</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>127</td>
</tr>
</tbody>
</table>

©2013 Beckman Coulter, Inc.
Global SDS – English
Section 14 Transport Information (Continued)

<table>
<thead>
<tr>
<th>Shipping Information</th>
<th>IATA</th>
<th>IMDG</th>
<th>US DOT</th>
<th>European ADR</th>
<th>Canadian TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.5 Environmental Hazard</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Not applicable</td>
<td>No</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**14.6 Special Precautions for users**

None

Section 15 Regulatory Information

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

**US Federal and State Regulations**

**SARA 313**
Ethylene Oxide is subject to reporting requirements of Section 313, Title III of SARA. 0.1 % de minimis concentration

1,4-Dioxane is subject to reporting requirements of Section 313, Title III of SARA. 0.1 % de minimis concentration

**CERCLA RG’s, 40 CFR 302.4**
Ethylene Oxide is listed.

1,4-Dioxane is listed.

**California Proposition 65**
Ethylene Oxide has been identified by the State of California to cause cancer and reproductive harm. The State of California has adopted a regulation which requires a warning be given to individual who may be exposed to chemicals identified by the State to cause cancer or reproductive harm. Accordingly, Beckman Coulter advises you of the following warning:

**WARNING:** This product contains a chemical known to the State of California to cause cancer and reproductive harm.

1,4-Dioxane has been identified by the State of California to cause cancer. The State of California has adopted a regulation which requires a warning be given to individual who may be exposed to chemicals identified by the State to cause cancer or reproductive harm. Accordingly, Beckman Coulter advises you of the following warning:

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

**Massachusetts MSL**
Ethylene Oxide is listed.

1,4-Dioxane is listed.

Hydrogen Peroxide is listed.

**New Jersey Dept. of Health RTK List**

Ethylene Oxide is listed.

1,4-Dioxane is listed.

Hydrogen Peroxide is listed.

**Pennsylvania RTK**

Ethylene Oxide is listed.

1,4-Dioxane is listed.

Hydrogen Peroxide is listed.
Section 15 Regulatory Information (Continued)

**EU Regulations**
This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

**Water Hazard Class (Germany)** WGK 1, low water endangering

**REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.**
No ingredients listed.

**Canada**
This product is exempt from WHMIS label and SDS requirements.

**PIN** 1987

**Ingredients on Ingredient Disclosure List**
- Ethylene Oxide
- Citric Acid
- 1,4-Dioxane
- Hydrogen Peroxide
- octylphenoxypoly(ethoxyethanol)

**Ingredients with unknown toxicological properties**
Product is exempt

15.2 **Chemical Safety Assessment** Not available

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS’ 1.0% w/w (0.1% for carcinogens) or EU’s ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

<table>
<thead>
<tr>
<th>Beckman Coulter Safety Rating</th>
<th>Flammability: 3</th>
<th>Health: 2</th>
<th>Reactivity with Water: 2</th>
<th>Contact: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0=None</td>
<td>1=Slight</td>
<td>2=Caution</td>
<td>3=Severe</td>
</tr>
</tbody>
</table>


**Hazard Class, hazard statements and risk phrase description from section 3**
- C - Corrosive
- F - Highly flammable
- O - Oxidising
- Xi - Irritant
- Xn - Harmful
- R11 Highly flammable.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
- R35 Causes severe burns.
- R20/22 Harmful by inhalation and if swallowed.
- R36 Irritating to eyes.
- R37/38 Irritating to respiratory system and skin.
- R41 Risk of serious damage to eyes.
- R5 Heating may cause an explosion.
- R8 Contact with combustible material may cause fire.
Section 16 Other Information (Continued)

B2 - Flammable and Combustible Material: Flammable Liquid
C - Oxidizing Material
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic
(Chronic Toxic Effects)
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic
(Skin or Eye Irritation)
E - Corrosive Material
Acute Tox. Dermal 4 - Acute Toxicity Dermal, Category 4
Acute Tox. Dermal 5 - Acute Toxicity Dermal, Category 5
Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Acute Tox. Oral 5 - Acute Toxicity Oral, Category 5
Eye Dam. 1 - Eye Damage Category 1
Eye Irrit. 2 - Eye Irritation Category 2
Flam. Liq. 2 - Flammable Liquids, Category 2
Ox. Liq. 1 - Oxidizing Liquids Category 1
Skin Corr. 1A - Skin Corrosion Category 1A
Skin Irrit. 3 - Skin Irritation Category 3
STOT SE 2 - Specific Target Organ Toxicity Single Exposure Category 2
STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3
H225 - Highly flammable liquid and vapour.
H271 - May cause fire or explosion; strong oxidiser.
H302 - Harmful if swallowed.
H303 - May be harmful if swallowed
H312 - Harmful in contact with skin.
H313 - May be harmful In contact with skin
H314 - Causes severe skin burns and eye damage.
H316 - Causes mild skin irritation
H318 - Causes serious eye damage.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H371 - May cause damage to organs.

For further information, please contact your local Beckman Coulter representative.

WHILE BECKMAN COULTER, INC. BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, BECKMAN COULTER MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. BECKMAN COULTER SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.