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

1.1 Product Identifier
   Product Name: Fisherbrand® Optical Lens Cleaner
   Part Number: 8306008

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Product Use: For laboratory use only

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
   e-mail address: SDSNT@beckman.com

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

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; Fruity odor
   Classification according to EC Directives 1999/45/EC and 67/548/EEC
   Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

   US OSHA
   Hazardous

   WHMIS
   B3; D2B

   Potential Health Effects Summary
   Contact with the skin or eyes may cause irritation.

2.2 Label Elements
   According to EC Directives (1999/45/EC and 67/548 EEC)
   Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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>Ethylene Glycol Monobutyl Ether</td>
<td>4.9%</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. Remove contaminated clothing and shoes. 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

None identified
Section 5 Fire Fighting Measures (Continued)

Hazardous Combustion Products
No combustion products posing significant hazards are expected from this product.

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
No special precautions are necessary. Use good laboratory procedures.

6.2 Environmental Precautions
Contain spill to prevent migration.

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
No special precautions are necessary; use good laboratory procedures.

7.2 Conditions for safe storage, including any incompatibilities
Keep away from incompatible material (see Section 10).

Section 8 Exposure Controls and Personal Protection

8.1 Control parameters
Exposure Limits
US OSHA
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
50 ppm TWA; 240 mg/m3 TWA; prevent or reduce skin absorption

ACGIH
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
20 ppm TWA

DFG MAK
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
20 ppm Peak; 98 mg/m3 Peak; skin notation; 10 ppm TWA MAK; 49 mg/m3 TWA MAK

Ireland
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
20 ppm TWA; 98 mg/m3 TWA; 50 ppm STEL; 246 mg/m3 STEL; Potential for cutaneous absorption
Section 8 Exposure Controls and Personal Protection (Continued)

NIOSH
Ethylene Glycol Monobutyl Ether 700 ppm IDLH; 5 ppm TWA; 24 mg/m3 TWA
CAS # 111-75-2
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.

Skin Protection
Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

Respiratory Protection
Under normal conditions, the use of this product should not require respiratory protection.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.994 @20°C (Water=1.0)</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Transparency</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor</td>
<td>Fruity odor</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility</td>
<td>Organic</td>
</tr>
<tr>
<td>Coefficient of Water/Oil Distribution</td>
<td>Not determined</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Autoignition Temp.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>95°C (203°F)</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Percent Volatiles</td>
<td>4.9 %</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Ethylene Glycol Monobutyl Ether 0.10 ppm geometric mean air odor threshold = (detectable); 0.35 ppm geometric mean air odor threshold = (recognizable)</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 in closed containers under normal temperatures and pressures.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to Avoid
Keep away from incompatible material.

10.5 Incompatible materials
Strong oxidizers

10.6 Hazardous Decomposition Products
No decomposition products posing significant hazards would be expected from this product.

Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg

Primary Routes of Exposure
The most likely routes of exposure are skin and eye contact. Inhalation may occur if mists are formed in product use.

Carcinogenicity
No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Potential Effects of Acute Exposure
Contact with the skin or eyes may cause irritation.

Potential Effects of Chronic Exposure
None identified

Symptoms of Overexposure
Symptoms may include redness and itching or burning of the skin and eyes.

Conditions Aggravated by Exposure
None identified

Other Information
None identified

Section 12 Ecological Information

12.1 Ecotoxicity
Fresh Water Species
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
96 h LC50 Lepomis macrochirus: 1490 mg/L [static]; 96 h LC50 Lepomis macrochirus: 2950 mg/L

Microtox
No information available.

Water Flea
Ethylene Glycol Monobutyl Ether
CAS # 111-76-2
24 h EC50 Daphnia magna: 1698 - 1940 mg/L; 48 h EC50 Daphnia magna: >1000 mg/L
Section 12 Ecological Information (Continued)

12.1 Fresh Water Algae
No information available.

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

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

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 Glycol Monobutyl Ether is subject to reporting requirements of Section 313, Title III of SARA.

CERCLA RG’s, 40 CFR 302.4
No ingredients listed.

California Proposition 65
No ingredients listed.

Massachusetts MSL
Ethylene Glycol Monobutyl Ether is listed.

New Jersey Dept. of Health RTK List
Ethylene Glycol Monobutyl Ether is listed.

Pennsylvania RTK
Ethylene Glycol Monobutyl Ether is listed.

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.
Section 15 Regulatory Information (Continued)

Canada

WHMIS Classification:
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Eye Irritation)
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin Irritation)
B3 - Flammable and Combustible Material: Combustible Liquid

PIN
Not applicable

Ingredients on Ingredient Disclosure List
Ethylene Glycol Monobutyl Ether
Sodium Lauryl Sulfate

Ingredients with unknown toxicological properties
None

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

Revision Changes

Hazard Class, hazard statements and risk phrase description from section 3

Xn - Harmful
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.
B3 - Flammable and Combustible Material: Combustible Liquid
D1B - Poisonous and Infectious Material: Division 1 - Immediate and Serious Toxic Effects: Toxic (Acute Oral Toxicity)
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin or Eye Irritation)
Acute Tox. Dermal 4 - Acute Toxicity Dermal, Category 4
Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Eye Irrit. 2 - Eye Irritation Category 2
Flam. Liq. 4 - Flammable Liquids, Category 4
Skin Irrit. 2 - Skin Irritation Category 2
H227 - Combustible Liquid
H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Section 16 Other Information (Continued)

H332 - Harmful if inhaled.

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

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