Section 1: IDENTIFICATION

Product name: CTL-Test™, CTL-Test™ PLUS, CTL-Test™ B (ImmunoSpot® Kit)
Catalog number: CTLT-010, CTLT-005, CTLTP-010, CTLTP-005, CTLTB-010, CTLTB-005; serum-free cell culture medium included in all ImmunoSpot® Kits.
Company name: Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350  USA
+1 216-791-5084 T •  +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Recommended usage: CTL-Test™ Medium provides a nutritionally complete and balanced environment for cells used in ELISPOT assays.
For laboratory research use only. Not for use in diagnostic or therapeutic procedures.

Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Buffered, serum-free solution containing a proprietary blend of injection-grade water supplemented with amino acids, vitamins, inorganic salts, and HSA; none of which are considered hazardous at the concentration level used.

GHS signal word: Not a hazardous mixture

Hazard statements: Not a hazardous mixture

Precautionary statements: Not a hazardous mixture

Response statements: Not a hazardous mixture

Risk phrases: Not a hazardous mixture

Safety phrases: S36/S37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
</tr>
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<tbody>
<tr>
<td>HSA</td>
<td>70024-90-7</td>
<td>274-272-6</td>
<td>N/A</td>
</tr>
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</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.
Inhalation: No treatment as this product is not likely to be inhaled.
Ingestion: If ingested do not induce vomiting; rinse mouth with water.
Section 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available

Advice for firefighters: Wear self-contained breathing apparatus if necessary

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use proper personal protective equipment

Environmental precautions: No precautions required

Containment/ clean-up measures: For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustable material and dispose of collected material according to local and regional regulations.

Section 7: HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Wear chemical-resistant gloves.

Conditions for safe storage: Store refrigerated at 4°C, protect from light

Incompatible materials: Strong acids, strong oxidizing agents, and strong reducers.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

PEL: This product does not contain any ingredients listed on OSHA PEL Threshold Limit Values.

Personal protective equipment: Wear chemical-resistant gloves

General protective hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available and close to work areas.

Environmental exposure controls: Follow best practice for site management and disposal of waste.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear orange-red liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
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<tr>
<td>Odor threshold</td>
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<td>pH</td>
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<td>Melting point</td>
<td>Not available</td>
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<td>Freezing point</td>
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<td>Initial boiling point and range</td>
<td>Not available</td>
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<td>Flash point</td>
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<td>Flammability (solid, gas)</td>
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<td>Upper/lower flammability or explosive limits</td>
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<td>Vapor pressure</td>
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<td>Partition coefficient</td>
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<td>Auto-ignition temperature</td>
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</tr>
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<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Strong acids, strong oxidizing agents, and strong reducers.

Hazardous decomposition products: None

Section 11: TOXICOLOGICAL INFORMATION

Routes of entry/exposure: Skin, eyes, ingestion

Reproductive toxicity: No data available

Acute toxicity: No data available

Acute effects on skin: Not a skin irritant

Chronic effects on skin: No data available

Acute effects on eyes: Not an eye irritant

Chronic effects on eyes: No data available

Carcinogenicity: No data available

Germ cell mutagenicity: No data available

Symptoms of chemical exposure: None known

Section 12: ECOLOGICAL INFORMATION

Toxicity: No data available

Persistence and biodegradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available on the adverse effects of this material on the environment.

Section 13: DISPOSAL CONSIDERATIONS

Product waste treatment: Dispose of product waste in accordance with applicable national, regional, or local regulations.

Packaging waste treatment: Dispose of packaging waste in accordance with applicable national, regional, or local regulations.

Precautions: No data available
Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:
TSCA: CAS# 70024-90-7
California proposition 65: Not listed as one of California's known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC #247-272-6

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (CTL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.

Issued 04-10-17
Section 1: IDENTIFICATION

Product name: CTL B-Poly-S™ (ImmunoSpot® Kit)
Catalog number: CTL-hBPOLYS-200, CTL-hBPOLYSE-200, CTL-mBPOLYS-200
Company name: Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350 USA
+1 216-791-5084 T • +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Recommended usage: When used according to protocol, CTL B-Poly-S™ reagent provides optimal, spontaneous polyclonal prestimulation of human B cells for use in ELISPOT assays. For laboratory research use only. Not for use in diagnostic or therapeutic procedures.

Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Solution containing a proprietary concentration of Resiquimod and BSA as a carrier protein, neither of which are considered hazardous at the concentration level used.

GHS signal word: Not a hazardous mixture
Hazard statements: Not a hazardous mixture
Precautionary statements: Not a hazardous mixture
Response statements: Not a hazardous mixture
Risk phrases: Not a hazardous mixture
Safety phrases: S36/S37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
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</thead>
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<td>Resiquimod</td>
<td>144875-48-9</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>0.1%</td>
</tr>
<tr>
<td>DMSO</td>
<td>67-68-5</td>
<td>200-664-3</td>
<td>5%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.
Inhalation: If inhaled, move to fresh air.
Ingestion: If ingested do not induce vomiting; rinse mouth with water.
### Section 5: FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.

**Special hazards arising from the substance or mixture:** No further relevant information available.

**Advice for firefighters:** Wear self-contained breathing apparatus if necessary.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use proper personal protective equipment, avoid breathing vapors, mist, gas, or dust.

**Environmental precautions:** No precautions required.

**Containment/clean-up measures:** For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustable material and dispose of collected material according to local and regional regulations.

### Section 7: HANDLING AND STORAGE

**Precautions for safe handling:** Use only with adequate ventilation.

**Conditions for safe storage:** Store refrigerated at 4°C

**Incompatible materials:** Strong oxidizing agents, strong reducing agents, strong acids.

### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**PEL:** TWA 250ppm

**Personal protective equipment:** Wear chemical-resistant gloves.

**General protective hygiene considerations:** Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available and close to work areas.

**Environmental exposure controls:** Follow best practice for site management and disposal of waste.
### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
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<td>Melting point</td>
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<td>Freezing point</td>
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<tr>
<td>Initial boiling point and range</td>
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<td>Flash point</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<td>Upper/lower flammability or explosive limits</td>
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<td>Vapor pressure</td>
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<td>Vapor density</td>
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<td>Relative density</td>
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<td>Solubility</td>
<td>Complete</td>
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<td>Partition coefficient</td>
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<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### Section 10: STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Chemical stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** No data available
- **Incompatible materials:** Strong oxidizing agents, strong reducing agents, strong acids.
- **Hazardous decomposition products:** None

### Section 11: TOXICOLOGICAL INFORMATION

- **Routes of entry/exposure:** Skin, eyes, ingestion
- **Reproductive toxicity:** No data available
- **Acute toxicity:**
  - LD50 Oral Rat: 14,500mg/kg; LD Dermal Rat: 5000mg/kg
- **Acute effects on skin:** May cause skin irritation
- **Chronic effects on skin:** No data available
- **Acute effects on eyes:** May cause eye irritation
- **Chronic effects on eyes:** No data available
- **Carcinogenicity:** No data available
- **Germ cell mutagenicity:** No data available
- **Symptoms of chemical exposure:** None known
Section 12: ECOLOGICAL INFORMATION

Toxicity: No data available
Persistance and biodegradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Other adverse effects: No data available on the adverse effects of this material on the environment.

Section 13: DISPOSAL CONSIDERATIONS

Product waste treatment: Dispose of product waste in accordance with applicable national, regional, or local regulations.
Packaging waste treatment: Dispose of packaging waste in accordance with applicable national, regional, or local regulations.
Precautions: No data available

Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:
TSCA: CAS# 144875-48-9, Resiquimod
CAS# 9048-46-8, BSA
CAS# 67-68-5, DMSO
California proposition 65: Not listed as one of California's known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC #232-936-2 BSA
EC #200-664-3 DMSO

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (CTL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.

Issued 04-10-17
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

DETECTION ANTIBODY

Section 1: IDENTIFICATION

Product name: Detection Antibody (ImmunoSpot® Kit)
Product description: Any Biotinylated or FITC-conjugated component used in any species of ImmunoSpot® Kits.
Company name: Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350 USA
+1 216-791-5084 T • +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Recommended usage: Detection Antibodies are used to detect cellular secretions in ELISpot assays.
For laboratory research use only. Not for use in diagnostic or therapeutic procedures.

Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Solution containing between 0.09% sodium azide and 1% BSA as a carrier protein. Neither are considered hazardous at the concentration level used.

GHS signal word: Not a hazardous mixture
Hazard statements: Not a hazardous mixture
Precautionary statements: Not a hazardous mixture
Response statements: Not a hazardous mixture
Risk phrases: Not a hazardous mixture
Safety phrases: S36/S37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Azide</td>
<td>26628-22-8</td>
<td>247-852-1</td>
<td>0.09%</td>
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<tr>
<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>0.2-1.0%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.
Inhalation: If inhaled, move to fresh air.
Ingestion: If ingested do not induce vomiting; rinse mouth with water.

Section 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available.
Advice for firefighters: Wear self-contained breathing apparatus if necessary.
Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use proper personal protective equipment, avoid breathing vapors, mist, gas, or dust.

**Environmental precautions:** No precautions required

**Containment/ clean-up measures:** For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustible material and dispose of collected material according to local and regional regulations.

Section 7: HANDLING AND STORAGE

**Precautions for use only with adequate ventilation.**

**Safe handling:** Wear chemical-resistant gloves.

**Conditions for safe storage:** Store refrigerated at 4°C

**Incompatible materials:** Strong oxidizing agents

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**PEL:** This product does not contain any ingredients listed on OSHA PEL Threshold Limit Values.

**Personal protective equipment:** Wear chemical-resistant gloves

**General protective hygiene considerations:** Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available and close to work areas.

**Environmental exposure controls:** Follow best practice for site management and disposal of waste.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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<tr>
<th>Property</th>
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<tbody>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
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<td>Odor</td>
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<td>Odor threshold</td>
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<td>Flash point</td>
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<td>Flammability (solid, gas)</td>
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<td>Upper/lower flammability or</td>
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<td>Viscosity</td>
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</tr>
</tbody>
</table>
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

DETECTION ANTIBODY

Section 10: STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: None

Section 11: TOXICOLOGICAL INFORMATION

Routes of entry/exposure: Skin, eyes, ingestion
Reproductive toxicity: No data available
Acute toxicity: Sodium Azide: Oral Rat, LD50: 27mg/kg
Acute effects on skin: May cause skin irritation
Chronic effects on skin: No data available
Acute effects on eyes: May cause eye irritation
Chronic effects on eyes: No data available
Carcinogenicity: No data available
Germ cell mutagenicity: No data available
Symptoms of chemical exposure: None known

Section 12: ECOLOGICAL INFORMATION

Toxicity: No data available
Persistence and biodegradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Other adverse effects: No data available on the adverse effects of this material on the environment.

Section 13: DISPOSAL CONSIDERATIONS

Product waste treatment: Dispose of product waste in accordance with applicable national, regional, or local regulations.
Packaging waste treatment: Dispose of packaging waste in accordance with applicable national, regional, or local regulations.
Precautions: No data available
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

DETECTION ANTIBODY

Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. Federal and State Regulations:
TSCA: CAS# 26628-22-8, Sodium Azide
       CAS# 9048-46-8, BSA
California proposition 65: Not listed as one of California's known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC #247-852-1, Sodium Azide
             EC #232-936-2, BSA

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (CTL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.

Issued 04-10-17
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

DILUENT B

Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350 USA
+1 216-791-5084 T • +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Section 1: IDENTIFICATION

Product name: DILUENT B (ImmunoSpot® Kit)
Product Description: A component used in all ImmunoSpot® Kits.
Company name: Cellular Technology Limited

Recommended usage: DILUENT B is used to detect cellular secretions in ELISPOT assays. For laboratory research use only. Not for use in diagnostic or therapeutic procedures.
Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Solution containing between 0.05% Tween 20 and 1% BSA as a carrier protein; neither of which are considered hazardous at the concentration level used.

GHS signal word: Not a hazardous mixture
Hazard statements: Not a hazardous mixture
Precautionary statements: Not a hazardous mixture
Response statements: Not a hazardous mixture
Risk phrases: Not a hazardous mixture
Safety phrases: S36/S37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tween 20</td>
<td>9005-64-5</td>
<td>500-018-3</td>
<td>0.05%</td>
</tr>
<tr>
<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.
Inhalation: If inhaled, move to fresh air.
Ingestion: If ingested do not induce vomiting; rinse mouth with water.

Section 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.

Special hazards arising from the substance or mixture: Carbon oxides
Advice for firefighters: Wear self-contained breathing apparatus if necessary.
Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use proper personal protective equipment, avoid breathing vapors, mist, gas, or dust.
**Environmental precautions:** No precautions required
**Containment/ clean-up measures:** For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustable material and dispose of collected material according to local and regional regulations.

Section 7: HANDLING AND STORAGE

**Precautions for safe handling:** Use only with adequate ventilation. Wear chemical-resistant gloves.
**Conditions for safe storage:** Store refrigerated at 4°C
**Incompatible materials:** Strong oxidizing agents

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**PEL:** This product does not contain any ingredients listed on OSHA PEL Threshold Limit Values.
**Personal protective equipment:** Wear chemical-resistant gloves
**General protective hygiene considerations:** Handle in accordance with good industrial hygiene and safety practice.
**Environmental exposure controls:** Wash hands thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available and close to work areas. Follow best practice for site management and disposal of waste. Avoid release into drains and the environment.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
<td>Solubility</td>
<td>Complete</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
<td>Partition coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not available</td>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 10: STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Chemical stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** No data available
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** None

### Section 11: TOXICOLOGICAL INFORMATION

- **Routes of entry/exposure:** Skin, eyes, ingestion
- **Reproductive toxicity:** No data available
  - **Acute toxicity:** Oral Rat, LD50, 40: 554mg/kg
- **Acute effects on skin:** May cause skin irritation
- **Chronic effects on skin:** No data available
- **Acute effects on eyes:** May cause eye irritation
- **Chronic effects on eyes:** No data available
- **Carcinogenicity:** No data available
- **Germ cell mutagenicity:** No data available
- **Symptoms of chemical exposure:** None known

### Section 12: ECOLOGICAL INFORMATION

- **Toxicity:** No data available
- **Persistence and biodegradability:** No data available
- **Bioaccumulative potential:** No data available
- **Mobility in soil:** No data available
- **Other adverse effects:** No data available on the adverse effects of this material on the environment.

### Section 13: DISPOSAL CONSIDERATIONS

- **Product waste treatment:** Dispose of product waste in accordance with applicable national, regional, or local regulations.
- **Packaging waste treatment:** Dispose of packaging waste in accordance with applicable national, regional, or local regulations.
- **Precautions:** No data available
Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:

TSCA: CAS# 9005-64-5, Tween 20
       CAS# 9048-46-8, BSA

California proposition 65: Not listed as one of California's known or potential carcinogens.

CERCLA/SARA: Not listed

EU labeling: EC #500-018-3, Tween 20
             EC #232-936-2, BSA

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (CTL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.

Issued 04-10-17
Section 1: IDENTIFICATION

Product name: Tertiary Reagent (ImmunoSpot® Kit)

Product description: Anti-FITC Alexa Fluor® 488, Anti-Hapten1-CTL-Yellow™, and Anti-Hapten2-CTL-Red™ are components used in any species of multicolor fluorescent ImmunoSpot® Kits.

Company name: Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350 USA
+1 216-791-5084 T • +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Recommended usage: Tertiary Reagents are used to detect cellular secretions in ELISPOT assays. For laboratory research use only. Not for use in diagnostic or therapeutic procedures.

Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Solution containing between 0.05–0.09% sodium azide and 0.2–1.0% BSA; neither of which are considered hazardous at the concentration level used.

GHS signal word: Not a hazardous mixture

Hazard statements: Not a hazardous mixture

Precautionary statements: Not a hazardous mixture

Response statements: Not a hazardous mixture

Risk phrases: Not a hazardous mixture

Safety phrases: S36/S37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Azide</td>
<td>26628-22-8</td>
<td>247-852-1</td>
<td>0.05–0.09%</td>
</tr>
<tr>
<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>0.2–1.0%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:

Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.

Inhalation: If inhaled, move to fresh air.

Ingestion: If ingested do not induce vomiting; rinse mouth with water.
Section 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available.

Advice for firefighters: Wear self-contained breathing apparatus if necessary.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use proper personal protective equipment, avoid breathing vapors, mist, gas, or dust.

Environmental precautions: Avoid runoff into waterways and sewers.

Containment/ clean-up measures: For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustable material and dispose of collected material according to local and regional regulations.

Section 7: HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation.

Conditions for safe storage: Store refrigerated at 4°C

Incompatible materials: N/A

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

PEL: This product does not contain any ingredients listed on OSHA PEL Threshold Limit Values

Personal protective equipment: Wear chemical-resistant gloves.

General protective hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating or drinking. Safety shower and eye wash should be available and close to work areas.

Environmental exposure controls: Follow best practice for site management and disposal of waste.
Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
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<tr>
<td>Odor threshold</td>
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<tr>
<td>pH</td>
<td>Not available</td>
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<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<td>Upper/lower flammability or explosive limits</td>
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<td>Relative density</td>
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<tr>
<td>Solubility</td>
<td>Complete</td>
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<tr>
<td>Partition coefficient</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
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<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Section 10: STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: No data available
Hazardous decomposition products: None

Section 11: TOXICOLOGICAL INFORMATION

Routes of entry/exposure: Skin, eyes, ingestion
Reproductive toxicity: No data available
Acute toxicity: Sodium Azide: Oral Rat, LD50: 27mg/kg
Acute effects on skin: No data available
Chronic effects on skin: No data available
Acute effects on eyes: No data available
Chronic effects on eyes: No data available
Carcinogenicity: No data available
Germ cell mutagenicity: No data available
Symptoms of chemical exposure: None known
Section 12: ECOLOGICAL INFORMATION

Toxicity: Avoid release into environment.
Persistance and biodegradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Other adverse effects: No further data available

Section 13: DISPOSAL CONSIDERATIONS

Product waste treatment: Dispose of product waste in accordance with applicable national, regional, or local regulations.
Packaging waste treatment: Dispose of packaging waste in accordance with applicable national, regional, or local regulations.
Precautions: No data available

Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:
TSCA: CAS# 26628-22-8, Sodium Azide
CAS# 9048-46-8, BSA
California proposition 65: Not listed as one of California’s known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC# 247-852-1, Sodium Azide
EC# 232-936-2, BSA

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (C TL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.
Issued 04-10-17

Section 1: IDENTIFICATION

Product name: Diluent C (ImmunoSpot® Kit)
Product description: A component used in all ImmunoSpot® Kits.
Company name: Cellular Technology Limited
20521 Chagrin Boulevard
Shaker Heights, OH 44122-5350 USA
+1 216-791-5084 T • +1 216-751-1373 F
+1 888-791-4005 Toll Free US
kits@immunospot.com
www.immunospot.com

Recommended usage: Diluent C is used to detect cellular secretions in ELISPOT assays.
For laboratory research use only. Not for use in diagnostic or therapeutic procedures.

Emergency telephone: +1 216-791-5084; +1 888-791-4005 Toll Free US

Section 2: HAZARD(S) IDENTIFICATION

Classification: Solution containing 1% BSA as a carrier protein; not considered hazardous at the concentration level used.
GHS signal word: Not a hazardous mixture
Hazard statements: Not a hazardous mixture
Precautionary statements: Not a hazardous mixture
Response statements: Not a hazardous mixture
Risk phrases: Not a hazardous mixture
Safety phrases: S36/37 – Wear suitable protective clothing and gloves.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
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</thead>
<tbody>
<tr>
<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
Skin and eyes: In case of contact with eyes, wash or flush eyes as a precaution.
Inhalation: If inhaled, move to fresh air.
Ingestion: If ingested do not induce vomiting; rinse mouth with water.

Section 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide extinguishing powder, dry chemicals, or water spray can be used for small fires. Fight larger fires with water spray or alcohol-resistant foam.
Special hazards arising from the substance or mixture: No further relevant information available.
Advice for firefighters: Wear self-contained breathing apparatus if necessary.
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use proper personal protective equipment, avoid breathing vapors, mist, gas, or dust.

Environmental precautions: No precautions required

Containment/ clean-up measures: For spills and leaks, ventilate area of leak or spill. Absorb spill using an absorbent, noncombustible material and dispose of collected material according to local and regional regulations.

Section 7: HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Wear chemical-resistant gloves.

Conditions for safe storage: Store refrigerated at 4°C

Incompatible materials: N/A

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

PEL: This product does not contain any ingredients listed on OSHA PEL Threshold Limit Values.

Personal protective equipment: Wear chemical-resistant gloves

General protective hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Follow best practice for site management and disposal of waste.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
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<tr>
<th>Property</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
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<tr>
<td>Odor threshold</td>
<td>Not available</td>
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<tr>
<td>pH</td>
<td>Not available</td>
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<tr>
<td>Melting point</td>
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</tr>
<tr>
<td>Initial boiling point and range</td>
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<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper/lower flammability or</td>
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</tr>
<tr>
<td>explosive limits</td>
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<td>Vapor pressure</td>
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<td>Vapor density</td>
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<td>Relative density</td>
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<td>Solubility</td>
<td>Complete</td>
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<tr>
<td>Partition coefficient</td>
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<td>Auto-ignition temperature</td>
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<td>Decomposition temperature</td>
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<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: No data available
Hazardous decomposition products: None

Section 11: TOXICOLOGICAL INFORMATION

Routes of entry/exposure: Skin, eyes, ingestion
Reproductive toxicity: No data available
Acute toxicity: No data available
Acute effects on skin: May cause skin irritation
Chronic effects on skin: No data available
Acute effects on eyes: May cause eye irritation
Chronic effects on eyes: No data available
Carcinogenicity: No data available
Germ cell mutagenicity: No data available
Symptoms of chemical exposure: None known

Section 12: ECOLOGICAL INFORMATION

Toxicity: No data available
Persistance and biodegradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Other adverse effects: No data available on the adverse effects of this material on the environment.

Section 13: DISPOSAL CONSIDERATIONS

Product waste treatment: Dispose of product waste in accordance with applicable national, regional, or local regulations.
Packaging waste treatment: Dispose of packaging waste in accordance with applicable national, regional, or local regulations.
Precautions: No data available
Section 14: TRANSPORT INFORMATION

DOT number: Not a dangerous good
UN number: Not a dangerous good
IMDG code: Not a marine pollutant
IATA code: Not a dangerous good

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:
TSCA: CAS# 9048-46-8
California proposition 65: Not listed as one of California’s known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC# 232-936-2

Section 16: OTHER INFORMATION

The information and recommendations in this Safety Data Sheet are believed to be accurate as of the date of issue. Nothing herein shall be deemed to create a warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this data to formulate the necessary safety precautions, as well as to decide the suitability of the material or product for any particular purpose. This product is intended for use only by persons having necessary technical skills and facilities for its proper handling. Since the conditions and manner are outside of the control of Cellular Technology Limited (CTL), CTL shall not be held liable for any damage or injury resulting from the use, misuse, or mishandling of the above product, or the information contained in this Safety Data Sheet.

Issued 04-10-17