Section 1: IDENTIFICATION

Product name: CTL-Test™, CTL-Test™ PLUS, CTL-Test™ B (ImmunoSpot® Kit)

Catalog number: CTLT-010, CTLT-005, 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>
</thead>
<tbody>
<tr>
<td>HSA</td>
<td>70024-90-7</td>
<td>274-272-6</td>
<td>N/A</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: 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.

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>
<th>Unit</th>
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<tr>
<td>Appearance</td>
<td>Clear orange-red liquid</td>
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<td>pH</td>
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<td>Flammability (solid, gas)</td>
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<td>Viscosity</td>
<td>Not available</td>
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</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

<table>
<thead>
<tr>
<th>DOT number</th>
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<tbody>
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</tr>
<tr>
<td>IMDG code</td>
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<tr>
<td>IATA code</td>
<td>Not a dangerous good</td>
</tr>
</tbody>
</table>

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 12-01-15
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06
COATING ANTIBODY

Section 1: IDENTIFICATION

Product name: Coating Antibody (ImmunoSpot® Kit)
Product Description: A component of all human 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: The Coating Antibody is used to capture cellular secretions from a PVDF membrane 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 0.02% thimerosal, 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/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>
<tbody>
<tr>
<td>Thimerosal</td>
<td>54-64-8</td>
<td>200-210-4</td>
<td>0.2%</td>
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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: 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 run-off to 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 Use only with adequate ventilation.
safe handling: 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. 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: Avoid release into the environment.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
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<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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<td>Melting point</td>
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<td>Flash point</td>
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<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Upper/lower flammability or explosive limits</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: Oral Rat, LD50: 75mg/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
COATING 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# 54-64-8
California proposition 65: Not listed as one of California’s known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC #200-210-4

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 12-01-15
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>
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</thead>
<tbody>
<tr>
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<td>247-852-1</td>
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<td>BSA</td>
<td>9048-46-8</td>
<td>232-936-2</td>
<td>0.2-1.0%</td>
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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: 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 safe handling: Use only with adequate ventilation.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
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<tr>
<td>Appearance</td>
<td>Clear colorless liquid</td>
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<td>Odor</td>
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<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available</td>
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</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: 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 12-01-15
Section 1: IDENTIFICATION

Product name: CTL-TrueBlue™ (S3) (ImmuNoSpot® Kit)
Catalog number: CTL-STB10; a component of all single- and double-color enzymatic 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: When mixed according to protocol with accompanying components of the ImmunoSpot® Kit, CTL-True-Blue™ (S3) becomes soluble in a solution used for an alkaline phosphatase precipitating reaction to visualize the color blue in single- and double-color enzymatic 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

GHS classification:
- Flammable liquid — Category 2, H225
- Acute toxicity, oral/inhalation/dermal – Category 3, H301/H331/H311
- Specific target organ toxicity (SE) – Category 1, H370

GHS signal word: Danger

Hazard statements:
- H225 – Highly flammable liquid and vapor
- H301/H311/H331 – Toxic if swallowed, in contact with skin, or inhaled
- H370 – Causes damage to organs

Precautionary statements:
- P210 – Keep away from heat/sparks/open flames – no smoking
- P211 – Do not spray on an open flame or other ignition source
- P233 – Keep container tightly closed
- P260 – Do not breathe fumes/gas/mist/vapors/spray
- P280 – Wash skin thoroughly after handling
- P281 – Wear protective gloves/protective clothing/eye protection/face protection

Response statements:
- P301/P312 – If swallowed call a poison control center or doctor/physician.
- P302/P303/P353 – If on skin, rinse with water/shower and remove contaminated clothing.
- P304/P311+P340 – If inhaled, move to fresh air and rest in a position comfortable for breathing, call poison control center or doctor/physician.

Risk phrases:
- R11 – Highly flammable
- R23/R24/R25 – Toxic by inhalation, in contact with skin, and if swallowed.
- R39/R23/R24/R25 – Danger of irreversible effects through inhalation, in contact with skin, and if swallowed.

Safety phrases:
- S7 – Keep container tightly closed
- S16 – Keep away from sources of ignition – no smoking
- S36/S37 – Wear suitable protective clothing and gloves.
- S45 – In case of accident or you feel unwell, seek medical advice immediately.
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06
CTL-TRUEBLUE™ (S3)

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
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<th>CONTAINS</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>CONTENT</th>
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<tr>
<td>Methanol</td>
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<td>200-659-6</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures:
- Skin and eyes: In case of contact, immediately flush affected area thoroughly with water. Irrigate eyes and skin for at least 15 minutes and seek medical attention.
- Inhalation: If inhaled, move to fresh air and seek medical attention.
- Ingestion: If ingested do not induce vomiting. Rinse mouth with water and seek medical attention.

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: Use respirator; toxic gases can be evolved.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use proper personal protective equipment.

Environmental precautions:
- 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 oxidizers

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

PEL: TWA 200ppm

Personal protective equipment:
- Ventilation – use only with adequate ventilation to keep exposure limits low.
- Wear chemical-resistant gloves
- Wear protective goggles and lab coat

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.
- Avoid release into the environment.
Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark yellow liquid</td>
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<td>Odor</td>
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<td>Odor threshold</td>
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<td>pH</td>
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<tr>
<td>explosive limits</td>
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<td>Vapor pressure</td>
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<tr>
<td>pH</td>
<td>Not available</td>
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<tr>
<td>Solubility</td>
<td>Miscible</td>
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<tr>
<td>Partition coefficient</td>
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<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
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<td>Partition coefficient</td>
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<td>Viscosity</td>
<td>Not available</td>
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<tr>
<td>Initial boiling point and range</td>
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</tr>
<tr>
<td>Flash point</td>
<td>11°C</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper/lower flammability or</td>
<td>Not available</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
</tbody>
</table>

Section 10: STABILITY AND REACTIVITY

- **Reactivity:** Flammable
- **Chemical stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** Heat, sparks, open flame
- **Incompatible materials:** Strong oxidizers
- **Hazardous decomposition products:** Decomposes into carbon monoxide, carbon dioxide.

Section 11: TOXICOLOGICAL INFORMATION

- **Routes of entry/exposure:** Skin, eyes, ingestion
- **Reproductive toxicity:** Damage to fetus not classifiable. Fertility classification not possible from current data.
- **Acute toxicity:**
  - Orl-hmn LDLo: 340mg/kg
  - Orl-mus LD50: 870mg/kg
  - Skn-rbt LD50: 20mg/kg
- **Acute effects on skin:** Effects due to direct contact with skin include skin irritation.
- **Chronic effects on skin:** No data available
- **Acute effects on eyes:** Effects due to overexposure include eye irritation, visual impairment, or complete blindness.
- **Chronic effects on eyes:** No data available
- **Carcinogenicity:** No data available
- **Germ cell mutagenicity:** No data available
- **Symptoms of chemical exposure:** Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Effects due to overexposure may also include headache, dizziness, and drowsiness.
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: Accepted quantity reportable — Quantity (RQ): 5,000 lbs.; Proper shipping name: Methanol
UN number: 1230 Class 3 (6.1) packing group II; Proper shipping name: Methanol
IMDG code: Accepted quantity, 1230 Class 3 (6.1) packing group II; Proper shipping name: Methanol
IATA code: Accepted quantity, 1230 Class 3 (6.1) packing group II; Proper shipping name: Methanol

Section 15: REGULATORY INFORMATION

U.S. federal and state regulations:
TSCA: CAS# 67-56-1, Methanol
California proposition 65: This product contains a chemical known to cause birth defects or other reproductive harm.
CERCLA/SARA: SARA 302 – No chemicals in the material are subject to the reporting requirements.
SARA 313 – The following components are subject to reporting levels: Methanol, CAS-No.65-56-1.
SARA 311/312 Hazards – Fire hazard, acute health hazard, chronic health hazard.
EU labeling: EC# 200-659-6

Section 16: OTHER INFORMATION

Issued 12-01-15

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.
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/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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<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.
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. 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>
<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>
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<tr>
<td>Odor threshold</td>
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<td>Relative density</td>
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<td>Solubility</td>
<td>Complete</td>
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<td>Melting point</td>
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<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>
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<td>Decomposition temperature</td>
<td>Not available</td>
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<td>Flash point</td>
<td>Not available</td>
<td>Evaporation rate</td>
<td>Not available</td>
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<td>Flammability (solid, gas)</td>
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<td>Viscosity</td>
<td>Not available</td>
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<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: 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
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# 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 12-01-15
Section 1: IDENTIFICATION

Product name: Diluent B (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 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>
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<td>Tween 20</td>
<td>9005-64-5</td>
<td>500-018-3</td>
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<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, 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: 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: Avoid release into drains and the environment.

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>
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<tr>
<td>Odor</td>
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<td>Odor threshold</td>
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<td>Freezing point</td>
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<td>Initial boiling point and range</td>
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<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
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</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 12-01-15
SAFETY DATA SHEET (SDS)
OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

DILUENT BLUE

Section 1: IDENTIFICATION

Product name: Diluent Blue (ImmunoSpot® Kit)

Product description: A component used in single- and double-color enzymatic 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: When mixed according to protocol with accompanying components of the ImmunoSpot® Kit, Diluent Blue is a solution used in an alkaline phosphatase precipitating reaction to visualize the color blue in single- and double-color enzymatic 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 1.2% Tris by weight; non-hazardous.

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>
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<td>Tris</td>
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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 run-off to waterways and sewers.

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. 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: Avoid release into the environment.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<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>Flammability (solid, gas)</td>
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<td>Viscosity</td>
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</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: Oral rat, LD50: 5900mg/kg
Acute effects on skin: No skin irritation
Chronic effects on skin: No data available
Acute effects on eyes: No 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: Readily biodegradable
Bioaccumulative potential: No bioaccumulation
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# 77-86-1
California proposition 65: Not listed as one of California’s known or potential carcinogens.
CERCLA/SARA: Not listed
EU labeling: EC# 201-164-4

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.

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