

## SAFETY DATA SHEET (SDS)


OSHA HCS 29 CFR 1910.1200(g) and GHS Rev 06

CTL-CRYO™ ABC KIT  
for CTL-CRYO™ B

### Section 1: IDENTIFICATION

- Product name:** CTL-Cryo™ ABC Kit for component CTL-Cryo™ B
- Catalog number:** CTLC-ABC, CTLC-ABC-100, CTLC-ABC-150, CTLC-ABC-300, CTLC-ABC-500
- 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, the CTL-Cryo™ ABC Kit is a serum-free solution formulated to cryopreserve freshly-isolated PBMC. 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:** Dimethyl Sulfoxide (DMSO)  
H227 – Combustible liquid  
H313 – Causes skin irritation, Category 2  
H319 – Causes serious eye irritation, Category 2
- GHS signal word:** Warning 
- Hazard statements:** H227 – Combustible liquid  
H313 – Causes skin irritation  
H319 – Causes serious eye irritation
- Precautionary statements:** P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
P210 – Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources.  
P262 – Do not get in eyes, on skin, or on clothing.  
P264 – Wash hands thoroughly after handling.
- Response statements:** P302+P352 – If on skin, wash with plenty of soap and water.  
P305+P351+P338 – If in eyes, rinse cautiously with water for several minutes, remove contact lenses if present and easy to do, continue rinsing.  
P332+P313 – If skin irritation occurs, get medical advice/attention.  
P362+P364 – Take off contaminated clothing and wash before reuse.
- Risk phrases:** R21 – Harmful if in contact with skin  
R36 – Irritating to eyes
- Safety phrases:** S36/S37 – Wear suitable protective clothing and gloves.

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### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINS	CAS NUMBER	EC NUMBER	CONTENT
DMSO	67-68-5	200-664-2	5-20%

### 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. Remove contaminated clothing.

**Inhalation:** If inhaled, move to fresh air and seek medical attention. If breathing is irregular or stopped, give artificial respiration.

**Ingestion:** If ingested obtain immediate medical attention. Keep at rest. Do not induce vomiting.

### 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:** Hazardous decomposition: Sulfur dioxide, formaldehyde, methyl mercaptan, dimethyl sulfide, dimethyl disulfide, and bis (methylthio) methane. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

**Advice for firefighters:** Burning dimethyl sulfoxide produces poisonous gases (sulfur oxides). Wear positive pressure, self-contained breathing apparatus (SCBA) with a full facepiece and protective clothing including rubber gloves and suit. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use proper personal protective equipment. Avoid breathing vapors and provide adequate ventilation.

**Environmental precautions:** Avoid run-off to waterways and sewers.

**Containment/clean-up measures:** For spills and leaks, ventilate area of leak or spill. Dilute and flush to wastewater treatment or absorb spill with inert material and transfer to chemical waste container in accordance with local and regional regulations. Do not breathe vapors or get liquid in eyes or on skin and clothing. Promptly remove soiled clothing and wash thoroughly before reuse.

### Section 7: HANDLING AND STORAGE

**Precautions for safe handling:** Keep away from sources of ignition. Use only with adequate ventilation. Do not breathe vapors or mist. Avoid contact with skin, eyes, and clothing. Wear eye protection, chemical-resistant gloves, and lab coat.

**Conditions for safe storage:** Store in a tightly closed container in a well-ventilated cool, dry place. Freezes (solidifies) at 18°C. Keep away from heat, sparks, and flame. Store out of direct sunlight. Prolonged heating above 150°C can cause rapid, exothermic decomposition.

**Incompatible materials:** Organic and inorganic acid chlorides, strong oxidizing agents, alkali metals, hydrobromic acid, acidic solutions of alkali bromides.

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### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**PEL:** N/A

**Personal protective equipment:** Ventilation – use only with adequate ventilation to keep exposure limits low. Wear chemical-resistant gloves, 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

<b>Appearance</b>	Clear colorless liquid	<b>Vapor pressure</b>	0.55mbar (0.46mmHg)@20°C
<b>Odor</b>	Odorless	<b>Vapor density</b>	2.7
<b>Odor threshold</b>	Not available	<b>Relative density</b>	1.1@20°C (water=1)
<b>pH</b>	8.5 (50/50 in water)	<b>Solubility</b>	Miscible
<b>Melting point</b>	17°C	<b>Partition coefficient</b>	-2.03
<b>Freezing point</b>	18°C	<b>Auto-ignition temperature</b>	300-302°C
<b>Initial boiling point and range</b>	189°C	<b>Decomposition temperature</b>	Not available
<b>Flash point</b>	89°C Closed cup; 95°C Open cup	<b>Evaporation rate</b>	0.026 (n-butyl acetate=1)
<b>Flammability (solid, gas)</b>	Not available	<b>Viscosity</b>	2.0mPas or cP (@25°C)
<b>Upper/lower flammability or explosive limits</b>	Lower: 3.0-3.5% by volume Upper: 42-63% by volume		

### Section 10: STABILITY AND REACTIVITY

**Reactivity:** Hazardous polymerization will not occur.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available

**Conditions to avoid:** Prolonged heating above 150°C can cause rapid, exothermic decomposition.

**Incompatible materials:** Organic and inorganic acid chlorides, strong oxidizing agents, alkali metals, hydrobromic acid, acidic solutions alkali bromides.

**Hazardous decomposition products:** Sulfur dioxide, formaldehyde, methyl mercaptan, dimethyl sulfide, dimethyl disulfide, and bis (methylthio) methane.

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### Section 11: TOXICOLOGICAL INFORMATION

- Routes of entry/exposure:** Skin, eyes, ingestion
- Reproductive toxicity:** No data available
- Acute toxicity:** Oral LD50 (rat): 14,500mg/kg; Skin LD50 (rat): 40,000mg/kg
- Acute effects on skin:** Causes skin irritation from short and long-term exposure.
- Chronic effects on skin:** No data available
- Acute effects on eyes:** Causes serious eye irritation from short and long-term exposure.
- Chronic effects on eyes:** No data available
- Carcinogenicity:** No data available
- Germ cell mutagenicity:** No data available
- Symptoms of chemical exposure:** Irritation and redness of skin and eyes

### Section 12: ECOLOGICAL INFORMATION

- Toxicity:** Avoid release into the environment. Run-off from dilution water may cause pollution.
- 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:** Accepted quantity: <119 gallons (not regulated)  
Reportable quantity: >119 gallons (Combustible liquid)  
Proper shipping name: Dimethyl Sulfoxide; Hazard Class 3, Packing group III
- UN number:** NA1933; Accepted quantity: <119 gallons (not regulated)  
Reportable quantity: >119 gallons (Combustible liquid)  
Proper shipping name: Dimethyl Sulfoxide; Hazard Class 3, Packing group III
- IMDG code:** Not regulated
- IATA code:** Not regulated

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### Section 15: REGULATORY INFORMATION

**U.S. federal and state regulations:**

**TSCA:** CAS# 67-68-5, Dimethyl Sulfoxide

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

**CERCLA/SARA:** Not listed

**EU labeling:** EC# 200-664-2

### 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 / Revised 12-12-16