

Cell Technology
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 Phone 612 331-4704

MATERIAL SAFETY DATA SHEET

EMERGENCY # FOR NATIONAL RESPONSE CENTER (800) 424-8802

Prepared 2/13/01

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SECTION 1. CHEMICAL IDENTIFICATION

Product Name: **FAM-VAD-FMK Reagent**
 Part No: 600037
 Synonyms: FAM-VAD-FMK stock / FAM-VAD-FMK solution
 CAS #: None.
 Chemical Formula: A fluorescein derivative of benzyloxycarbonyl val-ala-aspartic acid fluoromethyl ketone.

SECTION 2. HAZARDS IDENTIFICATION

Not known.

SECTION 3. CHARACTERISTICS

FAM-VAD-FMK Reagent is a brown powder.

Boiling point °f: No data available.
 Vapor pressure (mm Hg): No data available.
 Vapor density: No data available.
 Solubility in water: Very low.
 Specific gravity: Not applicable.
 % Volatile by volume: Not applicable.
 Evaporation rate: No data available.
 pH: Not applicable to a powder.

SECTION 4. STORAGE, HANDLING, STABILITY

FAM-VAD-FMK Reagent is stable for 18 months when stored at 2°C - 8°C and protected from light. When reconstituted to 150X, store **FAM-VAD-FMK** stock at -20°C for 6 months protected from light. When diluted to 5X, use **FAM-VAD-FMK** immediately. **FAM-VAD-FMK** reagent is light sensitive. It will not decompose in a hazardous manner. Hazardous polymerization will not occur.

SECTION 5. SAFETY CONTROL MEASURES

Gloves and standard laboratory protective clothing and eyewear are recommended. Safe laboratory practices should be followed.

SECTION 6. HEALTH HAZARD DATA

May enter the body through inhalation, ingestion, eye, and skin contact.

SECTION 7. FIRST AID MEASURES

Avoid prolonged exposure. Remove contaminated clothing and shoes, and wash before reuse.

Skin: Wash skin thoroughly with soap and water.
 Eyes: Flush with water for at least 15 minutes.
 Ingestion: If conscious, give large amounts of water. Seek medical attention.
 Inhalation: Remove to fresh air. If not breathing, administer CPR. If breathing is difficult, give oxygen.

SECTION 8. FIRE/EXPLOSION HAZARD DATA

FAM-VAD-FMK Reagent is not a fire hazard nor an explosion hazard. Use any means suitable for extinguishing surrounding fire. It is not necessary to use any special firefighting procedures. Water spray, carbon dioxide, dry chemical powder or appropriate foam can all be used.

SECTION 9. ACCIDENTAL RELEASE MEASURES

For release of large amounts of material, wear safety glasses and rubber gloves. Stop source of leak and isolate spill area. Collect material in an appropriate container and dispose with regular trash. Wash exposed surfaces with acetone or alcohol and rinse with copious amounts of soap and water. Dispose of all waste in accordance with all national, state, and local regulations.

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SECTION 1.

CHEMICAL IDENTIFICATION

Product Name: **Fixative**
 Part No: 600036
 Synonyms: Apoptosis Fixative / FAM-FMK Fixative
 CAS #: Not applicable to mixtures.
 Chemical Formula: Not applicable to mixtures.

SECTION 2.

HAZARDS IDENTIFICATION

Contains formaldehyde. Potential cancer hazard. Repeated or prolonged exposure increases the risk. Formaldehyde exposure has been linked to cancers of the lungs, vasopharynx, oropharynx, and nasal passages. Eye contact may cause permanent damage. Flammable liquid and vapor.

Contains methanol. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Harmful if inhaled or absorbed through skin. Strong sensitizer. May cause allergic reaction.

Contains PBS. Irritant to eyes, skin, and respiratory system. Do not get in eyes, on skin, or on clothing.

SECTION 3.

CHARACTERISTICS

Fixative is a clear, colorless solution with a moderately pungent odor.

Boiling point °f: No data available.
 Vapor pressure (mm Hg): No data available.
 Vapor density: No data available.
 Solubility in water: Soluble at room temperature.
 Specific gravity: Not applicable.
 % Volatile by volume: Not applicable.
 Evaporation rate: No data available.
 pH: 7.3-7.7

SECTION 4.

STORAGE AND STABILITY

Fixative is stable for 18 months when stored at RT under ordinary conditions of use and storage. Avoid heat, sparks, open flame. Product is somewhat volatile. Keep in a tightly closed container. Protect against physical damage. Separate from oxidizing and alkaline material. Store apart from any source of ignition. Containers may be hazardous when empty since they contain product residues. Do not breathe vapor or mist.

It may generate hazardous decomposition products such as formic acid. Hazardous polymerization will not occur. This product is incompatible with strong acids, oxidizers, isocyanates, strong alkalines, phenol, anhydrides, oxides and inorganic acids. Contact with HCl may cause formation of the potent carcinogen, bischloromethyl ether.

SECTION 5.

HEALTH HAZARD DATA

May enter the body through inhalation, ingestion, eye, and skin contact.

SECTION 6.

SAFETY CONTROL MEASURES

Personal protective equipment, such as lab coat, safety glasses with side shields, gloves should be worn at all times while handling this product. Use of this product should be restricted to a fume hood or equivalent ventilation conditions. Maintain eye wash fountain and safety shower in work area. Safe laboratory practices should be followed. Always wash thoroughly after handling. Never take internally. Do not breathe vapor or mist.

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SECTION 7. EXPOSURE GUIDELINES:

AGENCY	component	TWA, STEL, OR CL	UNITS	VALUE
OSHA(PEL)	Methanol	TWA	PPM	200
OSHA (PEL)	Methanol	TWA	Mg/M ³	260
OSHA(PEL)	Methanol	STEL	PPM	250
OSHA(PEL)	Methanol	STEL	Mg/M ³	325
OSHA(PEL)	Formaldehyde	TWA	PPM	0.75
OSHA(PEL)	Formaldehyde	STEL	PPM	2
ACGIH(TLV)	Methanol	TWA	PPM	200
ACGIH(TLV)	Methanol	TWA	Mg/M ³	252
ACGIH(TLV)	Methanol	STEL	PPM	250
ACGIH(TLV)	Methanol	STEL	Mg/M ³	328
ACGIH(TLV)	Formaldehyde	STEL	PPM	0.3
ACGIH(TLV)	Formaldehyde	STEL	Mg/M ³	0.37
ACGIH(TLV)	Formaldehyde	CL	PPM	0.3

SECTION 8. FIRST AID MEASURES

Get immediate medical assistance for all cases of overexposure. Avoid prolonged exposure. Remove contaminated clothing and shoes, and wash before reuse.

- Skin: Wash thoroughly with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Launder contaminated clothing. Throw away contaminated shoes.
- Eyes: Immediately flush with plenty of water for at least 15 minutes.
- Ingestion: If conscious, give large amounts of water, milk, or activated charcoal. Seek medical attention immediately.
- Inhalation: Remove to fresh air. If not breathing, administer CPR. If breathing is difficult, give oxygen.

SECTION 9. FIRE/EXPLOSION HAZARD

Fixative is considered a moderate fire hazard and a moderate explosion hazard. Formaldehyde reacts with nitrogen dioxide, nitromethane, perchloric acid and aniline, or peroxyformic acid to yield explosive compounds. Use dry chemical, "alcohol foam", carbon dioxide to extinguish fires. Firefighters should wear proper protective equipment and NIOSH-approved self-contained breathing apparatus.

SECTION 10. ACCIDENTAL RELEASE MEASURES

For large spills, evacuate area of all unnecessary employees. Wear appropriate personal protective equipment including: neoprene (or equivalent) gloves, safety glasses with side shields, and lab coat. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the spill and dispose of in compliance with federal, state, and local regulations. Us regulations (CERCLA) require reporting spills and releases to soil, water, and air in excess of reportable quantities. Toll free number to US coast guard national response center is (800) 424-8802.

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SECTION 1. CHEMICAL IDENTIFICATION

Product Name: **10X APO LOGIX JC-1
Assay Buffer**

Part No: 600085 and 600086
 Synonyms: 10X Assay Buffer / 10X Wash Buffer
 CAS #: Not applicable to mixtures
 Chemical Formula: Not applicable to mixtures

SECTION 2. HAZARDS IDENTIFICATION

Contains phosphate buffered saline (PBS). Irritant to eyes, skin, and respiratory system. Dilute solutions are less irritating.

SECTION 3. CHARACTERISTICS

10X APO LOGIX JC-1 Assay Buffer is a clear liquid; however some salts may precipitate and form clear crystals at low temperatures.

Boiling point °f: No data available.
 Vapor pressure (mm Hg): No data available.
 Vapor density: No data available.
 Solubility in water: Soluble at room temperature.
 Specific gravity: Not applicable.
 % Volatile by volume: Not applicable.
 Evaporation rate: No data available.
 pH: 6.9

SECTION 4. STORAGE, HANDLING, STABILITY

10X APO LOGIX JC-1 Assay Buffer is stable for 18 months when stored at 2°C - 8°C. When diluted to 1X, store at 2°C - 8°C for 7 days. It will not decompose in a hazardous manner. Hazardous polymerization will not occur.

SECTION 5. SAFETY CONTROL MEASURES

Gloves and standard laboratory protective clothing and eyewear are recommended. Safe laboratory practices should be followed.

SECTION 6. HEALTH HAZARD DATA

May enter the body through ingestion, eye, and skin contact.

SECTION 7. FIRST AID MEASURES

Remove contaminated clothing and shoes, and wash before reuse.

Skin: Wash skin thoroughly with soap and water.
 Eyes: Flush with water for at least 15 minutes.
 Ingestion: If conscious, give large amounts of water. Induce vomiting. Seek medical attention.
 Inhalation: Remove to fresh air. If not breathing, administer CPR. If breathing is difficult, give oxygen.

SECTION 8. FIRE/EXPLOSION HAZARD DATA

10X APO LOGIX JC-1 Assay Buffer is not flammable. It is not a fire hazard nor an explosion hazard. Use any means suitable for extinguishing surrounding fire. It is not necessary to use any special firefighting procedures. Water spray, carbon dioxide, dry chemical powder or appropriate foam can all be used.

SECTION 9. ACCIDENTAL RELEASE MEASURES

For release of large amounts of material, wear safety glasses and rubber gloves. Stop source of leak and isolate spill area. Collect liquid and flush down the drain with copious amounts of water, or absorb with dry material (such as paper towels) and place in a regular waste container. Dispose of all waste in accordance with all national, state, and local regulations.

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