



## MATERIAL SAFETY DATA SHEET

### SECTION 1. Chemical Product and Company Identification Misoprostol

**Product Code:** 13820 , **Reference #:** 59122-46-2

**Product Name:** Misoprostol

**CAS Number:** 59122-46-2

**Chemical Family:** Prostaglandins

**Synonyms**

9-oxo-11.alpha.,16-dihydroxy-16-methyl-prost-13E-en-1-oic acid, methyl ester; Cytotec;  
SC-29333

**Manufacturer Name and Address:**

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI. 48108

**Telephone Numbers: Dates:**

Cayman Chemical Company (800)364-9897 Date Entered: 07/23/1999  
Cayman Chemical Company (734)971-3335 Revision: 06/10/2004  
Printed: 06/10/2004

### SECTION 2. Composition/Information on Ingredients Misoprostol

**Hazardous Components (Specific Chemical Identity/Common Name)**

<b>Name:</b>	Misoprostol	<b>Percentage:</b>	1.0 %
<b>CAS #:</b>	59122-46-2	<b>ACGIH TLV:</b>	No data.
<b>OSHA PEL:</b>	No data.		

<b>Name:</b>	Methyl acetate {Methyl ester of acetic acid}	<b>Percentage:</b>	99.0 %
<b>CAS #:</b>	79-20-9	<b>ACGIH TLV:</b>	No data.
<b>OSHA PEL:</b>	8H TWA:200ppm (610 mg/m3)		

### SECTION 3. Hazards Identification Misoprostol

**Emergency Overview**

No data available.

**Route(s) of Entry:** Inhalation? Yes , Skin? Yes , Eyes? Yes , Ingestion? Yes , Other: Injection

**Potential Health Effects (Acute and Chronic)**

Females of childbearing potential should avoid this chemical; contact may induce uterine contractions.

Material is irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause adverse reproductive effects in males and/or females.

May cause congenital malformation in the fetus.

May cause eye, skin, or respiratory system irritation.

May cause gastrointestinal disturbances, nausea, and vomiting.

May impair fertility.  
Repeated exposure may cause skin dryness or cracking.  
Stimulates smooth muscle contraction.  
The toxicological properties of this compound have not been fully evaluated.  
This chemical has the potential to induce premature labor or abortion.  
Toxic.  
Vapors may cause drowsiness and dizziness.  
**Carcinogenicity:** NTP? No , IARC Monographs? No , OSHA Regulated? No  
**Carcinogenicity/Other Information**  
No data available.  
**Signs and Symptoms Of Exposure**  
Irritating to the skin, eyes, nose, throat, and respiratory tract.

#### SECTION 4. First Aid Measures Misoprostol

##### Emergency and First Aid Procedures

If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

##### Note to Physician

No data available.

##### Medical Conditions Generally Aggravated By Exposure

No data available.

#### SECTION 5. Fire Fighting Measures Misoprostol

**Flash Pt:** -16.00 C **Method Used:** closed cup

**Explosive Limits:** LEL: 3.1% UEL: 16%

##### Autoignition Pt: 502.00 C Extinguishing Media

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.  
Use of water spray when fire fighting may be inefficient.

##### Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Note: Flammable as diluted in methyl acetate

##### Flammable Properties and Hazards

Can release vapors that form explosive mixtures at temperatures at or above the flash point.

Container explosion may occur under fire conditions.

Emits toxic fumes under fire conditions.

Flammable liquid.

Vapors can travel to a source of ignition and flash back.

##### Hazardous Combustion Products

No data available.

#### SECTION 6. Accidental Release Measures Misoprostol

##### Steps To Be Taken In Case Material Is Released Or Spilled

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

After removal, ventilate contaminated area and flush thoroughly with water.

## SECTION 7. Handling and Storage Misoprostol

### Hazard Label Information:

Avoid contact with skin and eyes. Do not reuse this container.

Use with adequate ventilation. Wash thoroughly after handling.

### Precautions To Be Taken in Handling

Avoid contact with eyes, skin, and clothing.

Avoid prolonged or repeated exposure.

Do not reuse this container.

Keep away from sources of ignition.

Pregnant females should avoid exposure to this compound.

Use with adequate ventilation.

Wash thoroughly after handling.

### Precautions To Be Taken in Storing

Store at correct temperature.

### Other Precautions

Protect from moisture.

### Work/Hygienic/Maintenance Practices

Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

## SECTION 8. Exposure Controls/Personal Protection Misoprostol

### Protective Equipment Summary - Hazard Label Information

Eye wash station in work area    Lab coat    Latex disposable gloves

Safety glasses    Safety shower in work area    Vent Hood

### Respiratory Equipment (Specify Type)

No data available.

### Eye Protection

Safety glasses

### Protective Gloves

Latex disposable gloves

### Other Protective Clothing

Lab coat

### Engineering Controls (Ventilation etc.)

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

## SECTION 9. Physical and Chemical Properties Misoprostol

**Physical States:**                                     Gas ,  Liquid ,  Solid

**Boiling Point:**                                    No data.

**Melting Point:**                                    No data.

**Specific Gravity (Water = 1):**                    No data.

**Density:**    No data.

**Vapor Pressure (vs. Air or mm Hg):**            165 MM\_HG at 20.0 C

**Vapor Density (vs. Air = 1):**                    No data.

**Evaporation Rate (vs Butyl Acetate=1):**        No data.

**Solubility in Water:**                                >1.6 mg/ml\* at 25.0 C

**Other Solubility Notes:** \*PBS pH 7.2, sol. in EtOH, DMSO, & DMF  
**Percent Volatile:** No data.  
**Saturated Vapor Concentration:** No data.  
**Viscosity:** No data.  
**Molecular Formula:** C22H38O5  
**Molecular Weight:** 382.50  
**pH:** No data.  
**Appearance and Odor**  
A clear, colorless solution

### SECTION 10. Stability and Reactivity Misoprostol

**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability**  
protect from moisture  
**Incompatibility - Materials To Avoid**  
strong oxidizing agents  
**Hazardous Decomposition Or Byproducts**  
carbon dioxide  
carbon monoxide  
**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Polymerization**  
No data available.

### SECTION 11. Toxicological Information Misoprostol

The toxicological effects of this compound have not been thoroughly studied.  
**Chronic Toxicological Effects**  
No data available.

### SECTION 12. Ecological Information Misoprostol

Runoff from fire control or dilution water may cause pollution.

### SECTION 13. Disposal Considerations Misoprostol

**Waste Disposal Method**  
Dispose in accordance with local, state and federal regulations.

### SECTION 14. Transport Information Misoprostol

**DOT Proper Shipping Name**  
Methyl acetate  
**DOT Hazard Class:** 3  
**DOT Hazard Label:** FLAMMABLE LIQUID  
**UN/NA Number:** 1231  
**Additional Transport Information**  
Transport in accordance with local, state, and federal regulations.

### SECTION 15. Regulatory Information

**Misoprostol**

Regulatory information on this product is not available.

**SECTION 16. Other Information  
Misoprostol**

For research use only, not for human or veterinary clinical use.

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