

# Misoprostol (free acid): sc-205390



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

**Product Name:** Misoprostol (free acid)  
**Catalog Number:** sc-205390  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800

**Emergency:**  
ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

**Synonyms:** 9-oxo-11.alpha.,16-dihydroxy-16-methyl-prost-13E-en-1-oic acid;

### 2. Hazards Identification

**Emergency Overview:** Highly Flammable.  
Irritant.  
Toxic.  
Avoid contact and inhalation.  
Target Organ(s): central nervous system, digestive system, endocrine system, eyes, kidneys, reproductive system, respiratory system, skin.

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

**Health Hazards (Acute and Chronic):** Material may be 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 eye, skin, or respiratory tract irritation.  
May cause gastrointestinal disturbances.  
May stimulate contraction of intestinal and reproductive smooth muscle.  
Repeated exposure may cause skin dryness or cracking.  
This chemical has the potential to induce premature labor or abortion.  
The toxicological properties of this product have not been fully evaluated.

**LD 50 / LC 50:** Please refer to Section 11.

**Signs and Symptoms Of Exposure:** Exposure can cause: Nausea, diarrhea, headache, vomiting, flushing, shivering, hypotension, and dizziness.  
Inhalation may cause coughing, drowsiness, dizziness, dullness, and headache.

### 3. Composition/Information on Ingredients

| Hazardous Components (Chemical Name) | CAS #       | Concentration | EC#       | RTECS #   |
|--------------------------------------|-------------|---------------|-----------|-----------|
| 1. Misoprostol (free acid)           | 112137-89-0 | 1.0 %         | NA        | NA        |
| 2. Methyl acetate                    | 79-20-9     | 99.0 %        | 201-185-2 | AI9100000 |

### 4. First Aid Measures

**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 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 for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

## 5. Fire Fighting Measures

|                                            |                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flash Pt:</b>                           | -10.00 C    Method Used:    Closed Cup                                                                                                                                                                                                                                                          |
| <b>Explosive Limits:</b>                   | LEL: 3.1%    at 25.0 C    UEL: 16%    at 25.0 C                                                                                                                                                                                                                                                 |
| <b>Autoignition Pt:</b>                    | 455.00 C                                                                                                                                                                                                                                                                                        |
| <b>Special Fire Fighting Procedures:</b>   | As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.<br>Note: Flammable as diluted in methyl acetate.                                                                        |
| <b>Unusual Fire and Explosion Hazards:</b> | Can release vapors that form explosive mixtures at temperatures at or above the flash point.<br>Container explosion may occur under fire conditions.<br>Emits toxic fumes under fire conditions.<br>Sensitive to static discharge.<br>Vapors can travel to a source of ignition and flash back. |
| <b>Hazardous Combustion Products:</b>      | No data available.                                                                                                                                                                                                                                                                              |
| <b>Suitable Extinguishing Media:</b>       | Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.<br>Use water spray to cool fire-exposed containers.                                                                                                                                                                   |
| <b>Unsuitable Extinguishing Media:</b>     | A solid water stream may be inefficient.                                                                                                                                                                                                                                                        |

## 6. Accidental Release Measures

|                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Steps To Be Taken In Case Material Is Released Or Spilled:</b> | Avoid release into the environment.<br>Avoid breathing vapors and provide adequate ventilation.<br>Remove all sources of ignition.<br>As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).<br>Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 7. Handling and Storage

|                                             |                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard Label Information:</b>            | Avoid contact with skin and eyes.    Do not reuse this container.    Use with adequate ventilation.<br>Wash thoroughly after handling                                      |
| <b>Precautions To Be Taken in Handling:</b> | Avoid breathing (dust, vapor, mist, gas).<br>Avoid prolonged or repeated exposure.<br>Keep away from sources of ignition.<br>Prevent the build up of electrostatic charge. |
| <b>Precautions To Be Taken in Storing:</b>  | Keep away from heat, sparks, and flame.<br>Keep tightly closed.<br>Store at correct temperature.                                                                           |
| <b>Other Precautions:</b>                   | Light sensitive.<br>Protect from moisture.                                                                                                                                 |

## 8. Exposure Controls/Personal Protection

| Hazardous Components (Chemical Name) | CAS #       | OSHA PEL     | ACGIH TWA                     | Other Limits |
|--------------------------------------|-------------|--------------|-------------------------------|--------------|
| 1. Misoprostol (free acid)           | 112137-89-0 | No data.     | No data.                      | No data.     |
| 2. Methyl acetate                    | 79-20-9     | PEL: 200 ppm | TLV: 200 ppm<br>STEL: 250 ppm | No data.     |

|                                                                 |                                                                                                                                                                              |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protective Equipment Summary - Hazard Label Information:</b> | Compatible chemical-resistant gloves    Eye wash station in work area    Lab coat    Safety glasses    Safety shower in work area    Vent Hood                               |
| <b>Respiratory Equipment (Specify Type):</b>                    | NIOSH approved respirator, as conditions warrant.                                                                                                                            |
| <b>Eye Protection:</b>                                          | Safety glasses                                                                                                                                                               |
| <b>Protective Gloves:</b>                                       | Compatible chemical-resistant gloves                                                                                                                                         |
| <b>Other Protective Clothing:</b>                               | Lab coat                                                                                                                                                                     |
| <b>Ventilation:</b>                                             | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.                               |
| <b>Work/Hygienic/Maintenance Practices:</b>                     | Do not take internally.<br>Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.<br>Wash thoroughly after handling. |

## 9. Physical and Chemical Properties

|                                        |                                        |
|----------------------------------------|----------------------------------------|
| Physical States:                       | [ ] Gas [ X ] Liquid [ ] Solid         |
| Melting Point:                         | No data.                               |
| Boiling Point:                         | No data.                               |
| Autoignition Pt:                       | 455.00 C                               |
| Flash Pt:                              | -10.00 C Method Used: Closed Cup       |
| Explosive Limits:                      | LEL: 3.1% at 25.0 C UEL: 16% at 25.0 C |
| Specific Gravity (Water = 1):          | No data.                               |
| Bulk density:                          | No data.                               |
| Vapor Pressure (vs. Air or mm Hg):     | 173 MM_HG at 20.0 C                    |
| Vapor Density (vs. Air = 1):           | No data.                               |
| Evaporation Rate (vs Butyl Acetate=1): | No data.                               |
| Solubility in Water:                   | No data.                               |
| Percent Volatile:                      | No data.                               |
| Heat Value:                            | No data.                               |
| Particle Size:                         | No data.                               |
| Corrosion Rate:                        | No data.                               |
| Formula:                               | C21H36O5                               |
| Molecular Weight:                      | 368.50                                 |
| pH:                                    | No data.                               |
| Appearance and Odor:                   | No data available.                     |

## 10. Stability and Reactivity

|                                            |                                                       |
|--------------------------------------------|-------------------------------------------------------|
| Stability:                                 | Unstable [ ] Stable [ X ]                             |
| Conditions To Avoid - Instability:         | heat, flames and sparks                               |
| Incompatibility - Materials To Avoid:      | acids<br>bases<br>nitrates<br>strong oxidizing agents |
| Hazardous Decomposition Or Byproducts:     | carbon dioxide<br>carbon monoxide<br>nitrogen oxides  |
| Possibility of Hazardous Reactions:        | Will occur [ ] Will not occur [ X ]                   |
| Conditions To Avoid - Hazardous Reactions: | No data available.                                    |

## 11. Toxicological Information

|                                    |                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| :                                  | The toxicological effects of this product have not been thoroughly studied.                                                                                                                                                                                                                                                                                                            |
| Chronic Toxicological Effects:     | Methyl Acetate - Toxicity Data: Oral LD50 (rat): > 5,000 mg/kg; Skin LD50 (rabbit): > 5,000 mg/kg; Irritation Data: Skin (rabbit): 500 mg (24h) mild; Eyes (rabbit): 100 mg (24h) moderate; Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.<br>Methyl Acetate RTECS Number: AI9100000 |
| Carcinogenicity/Other Information: | No data available.                                                                                                                                                                                                                                                                                                                                                                     |
| Carcinogenicity:                   | NTP? No IARC Monographs? No OSHA Regulated? No                                                                                                                                                                                                                                                                                                                                         |

## 12. Ecological Information

|   |                                                                                                        |
|---|--------------------------------------------------------------------------------------------------------|
| : | Avoid release into the environment.<br>Runoff from fire control or dilution water may cause pollution. |
|---|--------------------------------------------------------------------------------------------------------|

## 13. Disposal Considerations

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

## 14. Transport Information

### LAND TRANSPORT (US DOT)

**DOT Proper Shipping Name** Methyl Acetate Solution  
**DOT Hazard Class:** 3  
**DOT Hazard Label:** FLAMMABLE LIQUID  
**UN/NA Number:** 1231  
**Packing Group:** II

### LAND TRANSPORT (European ADR/RID)

**ADR/RID Shipping Name** Methyl Acetate Solution  
**UN Number:** 1231  
**Packing Group:** II

### AIR TRANSPORT (ICAO/IATA)

**ICAO/IATA Shipping Name** Methyl Acetate Solution  
**UN Number:** 1231  
**Packing Group:** II  
**IATA Classification:** 3

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

## 15. Regulatory Information

**European Community Hazard Symbol codes** F: Highly Flammable; T: Toxic; Xn: Harmful

### European Community Risk and Safety Phrases

R11 - Highly flammable.  
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.  
R36 - Irritating to eyes.  
R60 - May impair fertility.  
R61 - May cause harm to the unborn child.  
R66 - Repeated exposure may cause skin dryness or cracking  
R67 - Vapours may cause drowsiness and dizziness  
S16 - Keep away from sources of ignition.  
S24/25 - Avoid contact with skin and eyes.  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S29 - Do not empty into drains.  
S33 - Take precautionary measures against static discharges.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.  
S53 - Avoid exposure - obtain special instructions before use.

### US EPA SARA Title III

| Hazardous Components (Chemical Name) | CAS #       | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110 |
|--------------------------------------|-------------|---------------|------------|---------------|---------|
| 1. Misoprostol (free acid)           | 112137-89-0 | No            | No         | No            | No      |
| 2. Methyl acetate                    | 79-20-9     | No            | No         | No            | No      |

### US EPA CAA, CWA, TSCA

| Hazardous Components (Chemical Name) | CAS #       | EPA CAA      | EPA CWA NPDES | EPA TSCA           | HPV/LPV |
|--------------------------------------|-------------|--------------|---------------|--------------------|---------|
| 1. Misoprostol (free acid)           | 112137-89-0 | HAP, ODC ( ) | No            | No                 |         |
| 2. Methyl acetate                    | 79-20-9     | HAP, ODC ( ) | No            | Inventory, 8A PAIR |         |

## 16. Other Information

### Company Policy or Disclaimer

**The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.**