# MATERIAL SAFETY DATA SHEET
## 5-trans U-46619

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

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## 1. Product and Company Identification

**Product Code:** 16452
**Product Name:** 5-trans U-46619
**Manufacturer Information**
**Company Name:** Cayman Chemical Company
**Emergency Contact:** Cayman Chemical Company (800)364-9897
**Information:** Cayman Chemical Company (734)971-3335
**Chemical Family:** Prostaglandins & Thromboxanes
**Synonyms:** 9,11-dideoxy-9.alpha.,11.alpha.-methanoepoxy-prosta-5E,13E-dien- 1-oic acid;

## 2. Composition/Information on Ingredients

| Hazardous Components (Chemical Name) | CAS # | Concentration | OSHA PEL | ACGIH TWA | Other Limits |
|---|---|---|---|---|---|
| 1. 5-trans U-46619 | NA | 1.0 % | No data. | No data. | No data. |
| 2. Methyl acetate | 79-20-9 | 99.0 % | 8H TWA:200 ppm (610 mg/m3) | 200 ppm | No data. |

| Hazardous Components (Chemical Name) | RTECS # | OSHA STEL | OSHA CEIL | ACGIH STEL | ACGIH CEIL |
|---|---|---|---|---|---|
| 1. 5-trans U-46619 | NA | No data. | No data. | No data. | No data. |
| 2. Methyl acetate | AI9100000 | No data. | No data. | 250 ppm | No data. |

## 3. Hazards Identification

**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):** The hazards identified with this product are those associated with the solvent(s).
Material is irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, or skin absorption.
May cause eye, skin, or respiratory system irritation.
Repeated exposure may cause skin dryness or cracking.
The toxicological properties of this compound have not been fully evaluated.
Vapors may cause drowsiness and dizziness.

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

**Signs and Symptoms Of Exposure:** Methyl acetate is metabolized into formic acid. Humans and other primates metabolize formic acid more slowly than do rodents. Formic acid can build up in the body producing toxic effects possibly leading to death; therefore data from studies in rodents may have limited relevance for human risk assessment.

## 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. 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.

## 5. Fire Fighting Measures

| | |
|---|---|
| **Flash Pt:** | -10.00 C Method Used: See note below |
| **Explosive Limits:** | LEL: 3.1% at 25.0 C UEL: 16% at 25.0 C |
| **Autoignition Pt:** | 502.00 C |
| **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.<br>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.<br>Container explosion may occur under fire conditions.<br>Emits toxic fumes under fire conditions.<br>Flammable liquid.<br>Vapors can travel to a source of ignition and flash back. |
| **Extinguishing Media:** | Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.<br>Use of water spray when fire fighting may be inefficient.<br>Use water spray to cool fire-exposed containers. |
| **Unsuitable Extinguishing Media:** | No data available. |

## 6. Accidental Release Measures

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|---|---|
| **Steps To Be Taken In Case Material Is Released Or Spilled:** | Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.<br>After removal, ventilate contaminated area and flush thoroughly with water. |

## 7. Handling and Storage

| | |
|---|---|
| **Precautions To Be Taken in Handling:** | Avoid breathing (dust, vapor, mist, gas).<br>Avoid contact with eyes, skin, and clothing.<br>Avoid prolonged or repeated exposure.<br>Do not reuse this container.<br>Keep away from sources of ignition.<br>Use with adequate ventilation.<br>Wash thoroughly after handling. |
| **Precautions To Be Taken in Storing:** | Keep tightly closed.<br>Store at correct temperature. |

## 8. Exposure Controls/Personal Protection

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|---|---|
| **Respiratory Equipment (Specify Type):** | Government approved respirator as conditions warrant. |
| **Eye Protection:** | Safety glasses |
| **Protective Gloves:** | Use appropriate hand protection based on solvent. |
| **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. |
| **Work/Hygienic/Maintenance Practices:** | 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:** | 502.00 C |

| | |
|---|---|
| **Flash Pt:** | -10.00 C Method: See note below |
| **Explosive Limits:** | LEL: 3.1% at 25.0 C UEL: 16% at 25.0 C |
| **Specific Gravity (Water = 1):** | 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:** | > 2 mg/ml* at 25.0 C |
| **Other Solubility Notes:** | * PBS pH 7.2; also sol in DMF, DMSO, and EtOH; see product insert. |
| **Percent Volatile:** | N.A. |
| **Corrosion Rate:** | No data. |
| **Formula:** | C21H34O4 |
| **Molecular Weight:** | 350.50 |
| **pH:** | No data. |
| **Appearance and Odor:** | A clear, colorless solution |

## 10. Stability and Reactivity

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

## 11. Toxicological Information

| | |
|---|---|
| **Toxicological Information:** | The toxicological effects of this compound have not been thoroughly studied.<br><br>Methyl Acetate - Toxicity Data:<br>Oral LD50 (rat): > 5000 mg/kg<br>Oral LD50 (rabbit): 3705 mg/kg<br>Skin LD50 (rabbit): > 5000 mg/kg<br><br>Methyl Acetate - Irritation Data:<br>Skin (rabbit): 500 mg 24H mild effect<br>Skin (rabbit): 20 mg 24H moderate effect<br>Eyes (rabbit): 100 mg 24H moderate effect |
| **Chronic Toxicological Effects:** | Methyl Acetate - Investigated as a tumorigen, mutagen, and reproductive effector.<br>Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.<br>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

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|---|---|
| **Ecological Information:** | Runoff from fire control or dilution water may cause pollution. |

## 13. Disposal Considerations

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

## 14. Transport Information

**LAND TRANSPORT (US DOT)**

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| **DOT Proper Shipping Name** | Methyl acetate |

| | |
|---|---|
| **DOT Hazard Class:** | 3 |
| **DOT Hazard Label:** | FLAMMABLE LIQUID |
| **UN/NA Number:** | 1231 |
| **Packing Group:** | II |
| **Additional Transport Information:** | Transport in accordance with local, state, and federal regulations. |

## 15. Regulatory Information

**US EPA SARA Title III**

| Hazardous Components (Chemical Name) | CAS # | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110 |
|---|---|---|---|---|---|
| 1. 5-trans U-46619 | NA | 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 | CA PROP 65 |
|---|---|---|---|---|---|
| 1. 5-trans U-46619 | NA | No | No | No | No |
| 2. Methyl acetate | 79-20-9 | No | No | Inventory, 8A PAIR | No |

## 16. Other Information

**Company Policy or Disclaimer**

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

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