
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Etoposide**
Product Number **2200**
Identified Uses For Research Use Only (RUO). Not intended for use in humans or animals.
 Not intended for therapeutic or diagnostic procedures.

Manufacturer/Supplier Cell Signaling Technology, Inc.
 3 Trask Lane
 Danvers, MA 01923 USA

Phone #: 978-867-2300

2. HAZARDS IDENTIFICATION

Emergency Overview



Danger

OSHA Hazards
Carcinogen, Target organ effect. Harmful by ingestion

GHS Classification
Acute Toxicity, Oral (Category 4)
Carcinogenicity (Category 1B)

Physical State
Solid

Potential Health Effects

Acute Toxicity

Eyes	Harmful if absorbed through eyes. May cause eye irritation.
Skin	Harmful if absorbed through skin. May cause skin irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.

Target organ effects Bone marrow, Blood Bone marrow, Blood

Chronic Effects

Carcinogenic effects	This product is or contains a component that is reported to be probably carcinogenic based on IARC, OSHA, ACGIH, NTP, or EPA classification.
Mutagenic effects	No data available
Reproductive toxicity	No data available
Sensitization	No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Chemical Name	CAS No.	EC No.	Concentration
Etoposide	33419-42-0	251-509-1	>98%

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	Rinse immediately with soap and plenty of water. Get medical attention immediately.
Inhalation	Move to fresh air. Get medical attention.
Ingestion	Call Poison Control immediately. Never give anything by mouth to an unconscious person. Rinse mouth with water.
Notes to physician	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point	Not flammable. See Section 9. Physical and Chemical Properties
Suitable Extinguishing Media	Use dry chemical , water spray, alcohol resistant foam or carbon dioxide.
Special exposure hazards	Hazardous decomposition products formed under fire conditions –toxic gases can be evolved.
Special protection for fire fighters	Wear self-contained breathing apparatus and protective unit
Other information	No data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid contact with skin, eyes, clothing. Avoid creating dusts during clean up.
Environmental precautions	Prevent product from entering drains. Prevent further spillage if safe to do so.

7. HANDLING AND STORAGE

Safe handling advice	Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.
Storage conditions	Keep container tightly closed in cool dry place.
Incompatibilities	No data available
Specific end uses	No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

This product contains no substances with established exposure limit values.

Engineering Measures

Emergency eyewash and safety shower. Mechanical exhaust required.

Hygiene Measures

Do not eat, drink or smoke when handling product. Wear suitable gloves and eye/face protection. Wash hands thoroughly after handling product. Regular cleaning of equipment, work area and clothing is recommended. Wash contaminated clothing before reuse.

Personal Protective Equipment

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory protective equipment tested and approved under appropriate government standards such as NIOSH, CEN)

Eye Protection:

Face shield and safety glasses tested and approved under appropriate government standards such as NIOSH,

Skin and body protection:

Wear suitable protective clothing, protective shoes or boots.

Hand protection:

Wear compatible chemical resistant gloves. Dispose of gloves in accordance with applicable laws and good laboratory practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	crystalline solid, granular or powder
Appearance	white
Odor	no data available
pH	no data available
Melting point/freezing point	259-273°C
Boiling point	no data available
Evaporation rate	no data available
Flash point	no data available
Autoignition temperature	no data available
Flammability limits in air	no data available
Explosive properties	no data available
VOC content	no data available
Decomposition temperature	no data available
Solubility	Soluble in DMSO

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions/Materials to avoid	Protect from light and heat.
Hazardous decomposition products	no data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

To the best of our knowledge, the chemical, physical and toxicological properties have not been fully investigated.

Acute Oral Toxicity (LD50) 1,784 mg/kg (rat)

Routes of Exposure**Potential Health Effects****Acute Toxicity****Acute Toxicity**

Eyes

Harmful if absorbed through eyes. May cause eye irritation.

Skin Harmful if absorbed through skin. May cause skin irritation.
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion Harmful if swallowed.

Target organ effects Bone marrow, Blood Bone marrow, Blood

Chronic Effects

Carcinogenic effects Possible Human Carcinogen.
This product is or contains a component that is reported to be probably carcinogenic based on IARC, OSHA, ACGIH, NTP, or EPA classification.
IARC 1- Group 1- Carcinogenic to humans (Etoposide)

Mutagenic effects No data available
Reproductive toxicity No data available
Sensitization No data available

Additional Information: RTECS KC0190000

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic organisms

Persistence and degradability No data available

Bioaccumulation No data available

Mobility No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable environmental laws and regulations.

14. TRANSPORT INFORMATION

IATA Not regulated for transport

DOT Not regulated for transport

IMDG Not regulated for transport

15. REGULATORY INFORMATION

OSHA Hazards

Carcinogen, Target organ effect. Harmful by ingestion

GHS Classification

Acute Toxicity, Oral (Category 4)
Carcinogenicity (Category 1B)

Signal Word: Danger

Pictogram:



Hazard Statements

H302 Harmful if swallowed.
 H350 May cause cancer.

Precautionary Statements

P201 Obtain special instructions before use.
 P308 + P313 IF exposed or concerned: Get medical advice.

U.S. Federal Regulations

SARA 302

No components are subject to reporting requirements established by SARA Title III, Section 302.

SARA 311/312

Acute Health Hazard/Chronic Health Hazard

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals that exceed the reporting levels of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPs) under Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulations

Massachusetts Right-to-Know Components:	None	-
New Jersey Right-to-Know Components:	Etoposide	CAS# 33419-42-0
Pennsylvania Right-to-Know Components:	Etoposide	CAS# 33419-42-0

California Proposition 65

Warning! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm:	Etoposide	CAS# 33419-42-0
---	-----------	-----------------

WHMIS Hazard Class

D2A Very Toxic Material Causing Other Toxic Effects	Carcinogen
D2B Toxic Material Causing Other Toxic Effects	Mutagen

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

Revision date 2012-08-10
Revision Note ***Indicates updated section

Disclaimer

The information provided on this material safety data sheet is to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Material Safety Data Sheet