

Section 1 - Product and Company Information

Product Name 11,12-EPOXY-(5Z,8Z,14Z)-EICOSATRIENOIC &
Product Number E5641
Brand SIGMA
Company Sigma-Aldrich Canada, Ltd
Address 2149 Winston Park Drive
Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Fax: 9058299292
Emergency Phone: 800-424-9300

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	
11,12-EPOXY-(5Z,8Z,14Z)-EICOSATRIEN OICACID	None	No	
Ingredient Name	CAS #	Percent	SARA 313
11,12-EPOXY-(5Z,8Z,14Z)-EICOSATRIENOIC ACID	81276-02-0	0.01	
ETHYL ALCOHOL	None	99.99	Yes

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Flammable (USA) Highly Flammable (EU). Irritant.
Irritating to eyes, respiratory system and skin.
Target organ(s): Liver. Nerves.

HMIS RATING

HEALTH: 2*
FLAMMABILITY: 3
REACTIVITY: 0

NFFA RATING

HEALTH: 2
FLAMMABILITY: 3
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is
conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give
artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious
amounts of water.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of
water for at least 15 minutes. Assure adequate flushing by
separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS

Flammable Hazards: Yes

FLASH POINT

49 °F 9 °C Method: closed cup

EXPLOSION LIMITS

Lower: 3.3 % Upper: 24.5 %

AUTOIGNITION TEMP

362 °C

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate
foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus
and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Flammable liquid. Vapor may travel
considerable distance to source of ignition and flash back.
Specific Method(s) of Fire Fighting: Use water spray to cool
fire-exposed containers.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy
rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered
containers using non-sparking tools and transport outdoors.
Ventilate area and wash spill site after material pickup is
complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on
skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

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Suitable: Keep tightly closed. Keep away from heat, sparks, and
open flame.
Store at -20°C

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved
under appropriate government standards such as NIOSH (US) or CEN
(EU). Where risk assessment shows air-purifying respirators are
appropriate use a full-face respirator with multi-purpose
combination (US) or type ABEK (EN 14387) respirator cartridges as
a backup to engineering controls. If the respirator is the sole
means of protection, use a full-face supplied air respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.
Skin-Specific: Chemical resistant apron.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	1900 MG/M3
Poland		NDSch	-
Poland		NDSp	-

Section 9 - Physical/Chemical Properties

Appearance Physical State: Liquid

Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	78 °C	760 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	49 °F 9 °C	Method: closed cup
Explosion Limits	Lower: 3.3 % Upper: 24.5 %	
Flammability	N/A	
Autoignition Temp	362 °C	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	

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Solubility N/A

N/A - not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.
Conditions to Avoid: Moisture.
Materials to Avoid: Acids, Acid chlorides, Acid anhydrides, Alkali
metals, Ammonia, Oxidizing agents, Peroxides.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and
upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Nerves. Liver. Heart.

SIGNS AND SYMPTOMS OF EXPOSURE

Can cause CNS depression. Exposure can cause: Narcotic effect.
Nausea, headache, and vomiting. Damage to the heart. To the best
of our knowledge, the chemical, physical, and toxicological
properties have not been thoroughly investigated.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not
classifiable as to its carcinogenicity based on its IARC, ACGIH,
NTP, or EPA classification.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed dispositional waste disposal service to dispose
of this material. Burn in a chemical incinerator equipped with an
afterburner and scrubber but exert extra care in igniting as this
material is highly flammable. Observe all federal, state, and
local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Ethanol [or] Ethyl alcohol [or]
Ethanol solutions [or] Ethyl alcohol solutions
UN#: 1170
Class: 3

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Packing Group: Packing Group II
Hazard Label: Flammable liquid
PIH: Not PIH

IATA

Proper Shipping Name: Ethanol solution
IATA UN Number: 1170
Hazard Class: 3
Packing Group: II

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: F-Xi
Indication of Danger: Highly Flammable. Irritant.
R: 11-36/37/38
Risk Statements: Highly flammable. Irritating to eyes,
respiratory system and skin.
S: 16-26-36
Safety Statements: Keep away from sources of ignition - no
smoking. In case of contact with eyes, rinse immediately with
plenty of water and seek medical advice. Wear suitable
protective clothing.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Flammable (USA) Highly Flammable (EU).
Irritant.
Risk Statements: Irritating to eyes, respiratory system and skin.
Safety Statements: Keep away from sources of ignition - no
smoking. In case of contact with eyes, rinse immediately with
plenty of water and seek medical advice. Wear suitable
protective clothing.
US Statements: Target organ(s): Liver. Nerves.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in
accordance with the hazard criteria of the CPR, and the MSDS
contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not
purport to be all inclusive and shall be used only as a guide. The
information in this document is based on the present state of our
knowledge and is applicable to the product with regard to
appropriate safety precautions. It does not represent any
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