

# Safety Data Sheet

**Issuing date** no data available

**Revision Date** 13-Jul-2015

**Version** 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** Leukotriene E4

**UN/ID No** 1230

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

**E-mail address** technical@abcam.com

**Emergency telephone** Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free) - Monday-Friday 8am-9pm EST

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute inhalation toxicity - vapor	Category 2
Specific target organ systemic toxicity (single exposure)	Category 1
Flammable liquids	Category 2

### GHS Label elements, including precautionary statements



**Signal Word**  
Danger

**Hazard statements**

H225 - Highly flammable liquid and vapor  
 H301 - Toxic if swallowed  
 H311 - Toxic in contact with skin  
 H330 - Fatal if inhaled  
 H370 - Causes damage to organs

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician  
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 P370 + P378 - In case of fire: Use foam for extinction  
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P307 + P311 - IF exposed: Call a POISON CENTER or doctor/ physician  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P280 - Wear protective gloves/ eye protection/ face protection  
 P284 - Wear respiratory protection  
 P361 - Remove/Take off immediately all contaminated clothing  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P403 + P235 - Store in a well-ventilated place. Keep cool  
 P233 - Keep container tightly closed  
 P330 - Rinse mouth  
 P501 - Dispose of contents/ container to an approved waste disposal plant  
 P405 - Store locked up  
 P363 - Wash contaminated clothing before reuse

**Other information**

No information available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
Methanol	67-56-1	30-60	Flam Liq. 1 (H224) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) STOT SE 1 (H370)

**For the full text of the H-Statements mentioned in this Section, see Section 16**

#### 4. FIRST AID MEASURES

<b>General advice</b>	Immediate medical attention is required.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician or poison control center immediately.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. If symptoms persist, call a physician.
<b>Notes to physician</b>	Treat symptomatically.
<b>Protection of first-aiders</b>	Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
<b>Flash point</b>	not determined
<b>Suitable extinguishing media</b>	Water spray. Alcohol-resistant foam. Dry chemical.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	none.
<b>Sensitivity to Static Discharge</b>	none.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Use personal protective equipment. Avoid contact with skin, eyes and inhalation of vapors. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Try to prevent the material from entering drains or water courses.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
<b>Methods for cleaning up</b>	Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.
<b>Other information</b>	Refer to protective measures listed in sections 7 and 8.

#### 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation. Prevent the formation of vapors, mists and aerosols. Keep away from open flames, hot surfaces and sources of ignition. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.
--------------------------------	---

**Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methanol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m <sup>3</sup> (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m <sup>3</sup> (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>

**Engineering measures**

Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

**Eye/face protection**

Tightly fitting safety goggles.

**Skin and body protection**

No special protective equipment required.

**Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures**

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	No information available.	<b>Odor</b>	No information available.
<b>Odor Threshold</b>	No information available	<b>Physical State @20°C</b>	Liquid
<b>pH</b>	No information available	<b>Autoignition temperature</b>	No information available
<b>Flash point</b>	No information available	<b>Boiling point/boiling range</b>	No information available
<b>Decomposition temperature</b>	No information available	<b>Flammability Limits in Air</b>	No information available
<b>Melting point/range</b>	No information available	<b>solubility</b>	No information available.
<b>Explosion limits</b>	No information available	<b>Vapor density</b>	no data available
<b>Specific Gravity</b>	no data available		
<b>Evaporation rate</b>	No information available		
<b>VOC Content(%)</b>	100		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible products</b>	None known based on information supplied.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ). Sulfur oxides.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

<b>Product Information</b>	Toxic by inhalation, in contact with skin and/or if swallowed
<b>Inhalation</b>	Toxic by inhalation
<b>Skin contact</b>	Toxic in contact with skin
<b>Ingestion</b>	Toxic if swallowed

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methanol	5,628 mg/kg (Rat)	15,800 mg/kg (Rabbit)	64,000 ppm (84 mg/l) (Rat, 4 h)

### Chronic toxicity

<b>Target Organ Effects</b>	Central nervous system (CNS). Eyes. Gastrointestinal tract (GI). Respiratory system. Skin.
-----------------------------	--

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Methanol	EC50 (Static) <i>Selenastrum capricornutum</i> (Green algae): 22,000 mg/l (96 h)  LOEC (Static) <i>Scenedesmus quadricauda</i> (Green algae): 8,000 mg/l (8 d)	LC50 (Flow-through) <i>Pimephales promelas</i> (Fathead minnow): 28,200 mg/l (96 h)  LC50 (Static) <i>Pimephales promelas</i> (Fathead minnow): 100 mg/l (96 h)  LC50 (Flow-through) <i>Oncorhynchus mykiss</i> (Rainbow trout): 20,100 mg/l (96 h)  LC50 (Static) <i>Oncorhynchus mykiss</i> (rainbow trout): 19 mg/l LC50 (96 h)  LC50 (Flow-through) <i>Lepomis macrochirus</i> (Bluegill sunfish): 15,400 mg/l (96 h)  LC50 (Static) <i>Lepomis macrochirus</i> (Bluegill sunfish): 1,000 mg/l (96 h)	EC0 <i>Pseudomonas putida</i> (Bacteria): 6,600 mg/l (16 h)  EC50 <i>Photobacterium phosphoreum</i> : 43,000 mg/l (5 min)  EC50 <i>Photobacterium phosphoreum</i> : 40,000 mg/l (15 min)  EC50 <i>Photobacterium phosphoreum</i> : 39,000 mg/l (25 min)  EC50 <i>Entosiphon sulcatum</i> (Protozoa): > 10,000 mg/l	EC50 <i>Daphnia magna</i> (Water flea): > 10,000 mg/l (24 h)
<b>Chemical Name</b>		<b>log Pow</b>		
Methanol		-0.77		

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging**

Do not re-use empty containers.

**US EPA Waste Number**

U154

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methanol - 67-56-1		Included in waste stream: F039		U154

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Methanol	Toxic Ignitable

**14. TRANSPORT INFORMATION**

**DOT** Excepted Quantity  
**Proper shipping name** Methanol  
**Hazard class** 3 (6.1)  
**UN/ID No** 1230  
**Packing group** II

**IATA** Excepted Quantity  
**UN/ID No** 1230  
**Proper shipping name** Methanol  
**Hazard class** 3 (6.1)  
**Packing group** II

**ADR** Excepted Quantity  
**Proper shipping name** Methanol  
**Hazard class** 3 (6.1)  
**UN/ID No** 1230  
**Packing group** II

**15. REGULATORY INFORMATION**

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Methanol	67-56-1	100	1.0

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** yes  
**Chronic Health Hazard** no  
**Fire Hazard** no  
**Sudden Release of Pressure Hazard** no  
**Reactive Hazard** no

**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).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methanol	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methanol	X	X	X	X	X

**International Regulations**

Chemical Name	Carcinogen Status	Exposure limits
Methanol		Mexico: TWA 200 ppm Mexico: TWA 260 mg/m <sup>3</sup> Mexico: STEL 250 ppm Mexico: STEL 310 mg/m <sup>3</sup>

**WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

## 16. OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3**

H225 - Highly flammable liquid and vapor H301 - Toxic if swallowed H311 - Toxic in contact with skin H330 - Fatal if inhaled H370 - Causes damage to organs

**Hazard statements**

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H330 - Fatal if inhaled

H370 - Causes damage to organs

**Revision Date**

13-Jul-2015

**Revision Note**

No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

**End of MSDS**