

# SAFETY DATA SHEET

## Visico™ LE4439

Version 2.0

Revision Date 05/02/2024

Former date 05/02/2019

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Visico LE4439

#### Manufacturer or supplier's details

Supplier : Borealis Compounds Inc  
176 Thomas Road, NJ 07865 Port Murray, United States of America (USA)  
Telephone: +1 908 850 6200

E-mail address : [sds@borealisgroup.com](mailto:sds@borealisgroup.com)

Emergency telephone number : +52 55 41696225 (3E), Access code: 336296Borealis Compounds Inc, Borealis North America HSE: 908-850-6200 for Monday – Friday 8-4:30pm excluding holidays

#### Recommended use of the chemical and restrictions on use

Recommended use : Raw material for plastics industry  
Restrictions on use : Use only according to our recommendations.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Reproductive toxicity : Category 1B  
Specific target organ toxicity - repeated exposure : Category 1 (Immune system)

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H360D May damage the unborn child.  
H372 Causes damage to organs (Immune system) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/ protective clothing/ eye protection/

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face protection.

### Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

### Storage:

P405 Store locked up.

### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

The product burns, but is not classified as flammable.

Dust from the product gives a potential risk for dust explosion.

During crosslinking reaction in combination with base resin: methanol (Flam. Liq. 2; H225, Acute Tox. 3; H301, Acute Tox. 3; H311, Acute Tox. 3; H331, STOT SE 1; H370) is released.

In contact with water or moisture methanol will be released.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture  
Chemical nature : The product is a polyethylene copolymer.  
It contains stabilisers.

### Components

Chemical name	CAS-No.	Concentration (% w/w)
dioctyltin dilaurate	3648-18-8	>= 1 -< 3
zinc dioctadecanoate	557-05-1	>= 1 -< 5

## SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air in case of accidental inhalation of vapours or decomposition products.  
Seek medical advice immediately.

In case of skin contact : If molten material comes in contact with the skin, cool with plenty of water. DO NOT remove solidified product, as removal could result in severe tissue damage.  
Obtain medical attention.  
Wash off with soap and plenty of water.  
Call a physician if irritation develops or persists.

In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids.  
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, rinse mouth with water (only if the person is conscious).  
Seek medical advice immediately.

Most important symptoms and effects, both acute and delayed : Inhalation of dust may irritate the respiratory tract.  
Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.  
Symptoms of poisoning (methanol):

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Daze  
Dizziness  
Nausea  
Abdominal pain  
Respiratory disorders  
Symptoms of poisoning, prolonged exposure (methanol):  
Blindness  
May damage the unborn child.  
Causes damage to organs through prolonged or repeated exposure.

Notes to physician : Treat symptomatically.  
No specific instructions needed.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water in spread jet, dry chemicals, foam or carbon dioxide.  
Unsuitable extinguishing media : High volume water jet  
Specific hazards during firefighting : Principal toxicant in the smoke is carbon monoxide.  
Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.

Environmental precautions : It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of plastics in to the environment.  
  
Should not be released into the environment.

Methods and materials for containment and cleaning up : Vacuum or sweep up spill.  
All spill of material must be removed immediately to prevent slipping accidents.  
Recycle or dispose loose material properly.  
Do not flush into surface water or sanitary sewer system.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Dust from the product gives a potential risk for dust explosion.  
All equipment shall be grounded.  
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Advice on safe handling : During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released.  
Provide adequate ventilation.

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Local exhaust ventilation may be necessary.  
Avoid inhalation of dust and decomposition fumes.  
Avoid contact with skin and eyes.

Hygiene measures : When using do not eat, drink or smoke.  
Wash hands before breaks and at the end of workday.

Conditions for safe storage : Store locked up.

Further information on storage stability : Keep in a dry place.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dioctyltin dilaurate	3648-18-8	VLE-PPT	0.1 mg/m <sup>3</sup> (Tin)	NOM-010-STPS-2014
		VLE-CT	0.2 mg/m <sup>3</sup> (Tin)	NOM-010-STPS-2014
		TWA	0.1 mg/m <sup>3</sup> (Tin)	ACGIH
		STEL	0.2 mg/m <sup>3</sup> (Tin)	ACGIH
zinc dioctadecanoate	557-05-1	VLE-PPT	10 mg/m <sup>3</sup>	NOM-010-STPS-2014
		TWA (Inhalable particulate matter)	10 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable particulate matter)	3 mg/m <sup>3</sup>	ACGIH

However, as the chemicals are embedded in a solid polymer, exposure is unlikely, unless the polymer is processed in a way that makes such exposure possible.

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methanol	67-56-1	VLE-PPT	200 ppm	NOM-010-STPS-2014
		VLE-CT	250 ppm	NOM-010-STPS-2014
		TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH

Engineering measures : Provide adequate ventilation.  
Local exhaust ventilation may be necessary.

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### Personal protective equipment

Respiratory protection	:	In case of dust development use dust mask. In the case of vapour formation use a respirator with an approved filter. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection	:	
Material	:	butyl-rubber
Break through time	:	>= 480 min
Glove thickness	:	0.5 mm
Material	:	Fluorinated rubber
Break through time	:	>= 480 min
Glove thickness	:	0.4 mm
Remarks	:	Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Eye protection	:	Safety glasses
Skin and body protection	:	Protective clothing

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	pellets
Colour	:	natural colour
Odour	:	odourless
Odour Threshold	:	Methanol: Do NOT rely on the odour: olfactory level is above the exposure limit.
pH	:	Not applicable insoluble
Melting range	:	100 - 140 °C
Boiling range	:	Decomposes on heating.
Flash point	:	Not applicable (solid)
Evaporation rate	:	Not applicable (solid)
Flammability (solid, gas)	:	The product is not flammable.

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Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable (solid)
Relative vapour density	:	Not applicable
Density	:	0.9 - 1.0 g/cm <sup>3</sup>
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Not applicable insoluble
Auto-ignition temperature	:	> 320 °C
Viscosity Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle size	:	3 - 10 mm Method: Image analysis (surface-based)

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is a stable thermoplastic, with no chemical reactivity. The intended crosslinking reaction occurs in combination with the base resin and moisture: at ambient conditions, in sauna or hot water bath.
Possibility of hazardous reactions	:	In contact with water or moisture methanol will be released.
Conditions to avoid	:	Exposure to moisture Extremes of temperature and direct sunlight.
Incompatible materials	:	None known.
Hazardous decomposition products	:	Under fire conditions: Carbon monoxide During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released. During crosslinking reaction in combination with base resin: methanol

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation**

Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation****Skin sensitisation**

Based on available data, the classification criteria are not met.

**Respiratory sensitisation**

Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Reproductive toxicity**

May damage the unborn child.

**STOT - single exposure**

Based on available data, the classification criteria are not met.

**STOT - repeated exposure**

Causes damage to organs (Immune system) through prolonged or repeated exposure.

**Aspiration toxicity**

Based on available data, the classification criteria are not met.

**Further information****Product:**

Remarks : During crosslinking reaction in combination with base resin: methanol (Flam. Liq. 2; H225, Acute Tox. 3; H301, Acute Tox. 3; H311, Acute Tox. 3; H331, STOT SE 1; H370) is released. Methanol: Toxic by inhalation, in contact with skin and if swallowed. Causes damage to organs.

Remarks : Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.

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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

No data available

#### Persistence and degradability

##### Product:

Biodegradability : Remarks: Not readily biodegradable.

#### Bioaccumulative potential

##### Product:

Bioaccumulation : Remarks: Does not accumulate in organisms.

#### Mobility in soil

##### Product:

Mobility : Remarks: Not expected to adsorb on soil.

Remarks: The product is insoluble and floats on water.

#### Other adverse effects

##### Product:

Additional ecological information : Should not be released into the environment.

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : Dispose of contents/ container to an approved waste disposal plant.

Check with local regulations.

Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### **UNRTDG**

Not regulated as a dangerous good

##### **IATA-DGR**

Not regulated as a dangerous good



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### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

#### NOM-002-SCT

Not regulated as a dangerous good

### Special precautions for user

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

## SECTION 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills. : Not applicable

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No data available  
Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills. : Not applicable

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
NOM-010-STPS-2014 : Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits  
ACGIH / TWA : 8-hour, time-weighted average  
ACGIH / STEL : Short-term exposure limit  
NOM-010-STPS-2014 / VLE- : Time weighted average limit value  
PPT  
NOM-010-STPS-2014 / VLE- : Short term exposure limit value  
CT

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AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Issued according to Regulation NOM-018-STPS-2015 and its amendments.

Sources of key data used to compile the Safety Data Sheet : The classification information of components is based on raw material supplier data.  
Revision Date : 05/02/2024

### Disclaimer

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

**Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.**

**It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is**

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**responsible for the appropriate, safe and legal use, processing and handling of our products.**

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