

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**Ambicat™ LE4476**

Version 17.1

Revision Date: 01.11.2019

Former date: 03.06.2019

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : Ambicat LE4476

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the : raw material for plastics industry  
Substance/Mixture

### 1.3 Details of the supplier of the safety data sheet

Supplier : Borealis AG  
Wagramer Strasse 17-19, 1220 Vienna, Austria  
Telephone: +43 1 22400 0

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

### 1.4 Emergency telephone number

+44 (0) 1235 239 670 (NCEC Carechem 24)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H361d Suspected of damaging the unborn child.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

Ambicat is a trademark of the Borealis group.

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P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
<b>Response:</b> P308 + P313	IF exposed or concerned: Get medical advice/ attention.
<b>Storage:</b> P405	Store locked up.
<b>Disposal:</b> P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

### 2.3 Other hazards

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 - see chapter 16) is released.

In contact with water or moisture methanol will be released.

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.

The product burns, but is not classified as flammable.

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

Results of PBT and vPvB assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : The product is a silane crosslinkable polyethylene copolymer.

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	68610-51-5 271-867-2 01-2119496062-39	Repr. 2; H361d Aquatic Chronic 4; H413	>= 3 - < 10
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	85536-14-7 287-494-3 01-2119490234-40	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318	>= 1 - < 2,5

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		Aquatic Chronic 3; H412	
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For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled : Move to fresh air in case of accidental inhalation of vapours.
- In case of skin contact : Cool melted product on skin with plenty of water. Do not remove solidified product.
- In case of eye contact : Rinse cautiously with water for several minutes.
- If swallowed : If swallowed, rinse mouth with water (only if the person is conscious).  
Seek medical advice immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Inhalation may provoke the following symptoms:  
Headache  
Irritation
- Symptoms of poisoning (methanol):  
Daze  
Dizziness  
Nausea  
Abdominal pain  
Respiratory disorders
- Symptoms of poisoning, prolonged exposure (methanol):  
Blindness

- Risks : Suspected of damaging the unborn child.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.  
No specific instructions needed.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water in spread jet, dry chemicals, foam or carbon dioxide.

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Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Principal toxicant in the smoke is carbon monoxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.  
Use personal protective equipment.

### 6.2 Environmental precautions

Prevent product from entering environment and drains.

### 6.3 Methods and material for containment and cleaning up

Vacuum or sweep up spill.  
All spill of material must be removed immediately to prevent slipping accidents.

### 6.4 Reference to other sections

For personal protection see section 8.  
For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Handle and open container with care.  
Use ventilation adequate to exhaust vapours.  
Do not breathe fume/ gas/ vapours.

Advice on protection against fire and explosion : Dust from the product gives a potential risk for dust explosion.  
All equipment shall be grounded.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage : Safety aspects do not require any special precautions in terms

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areas and containers

of storage.

Other data

: Keep in a dry place.

### 7.3 Specific end use(s)

Specific use(s)

: Raw material for wire and cable applications.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

For national exposure limit (OEL) values, check country specific safety data sheets.

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
methanol	67-56-1	TWA	200 ppm 260 mg/m <sup>3</sup>	2006/15/EC
Further information	Indicative, Identifies the possibility of significant uptake through the skin			

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Workers	Skin contact	Long-term systemic effects	170 mg/kg bw/d
	Workers	Inhalation	Long-term systemic effects, Long-term local effects	12 mg/m <sup>3</sup>
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	Workers	Oral	Long-term exposure	0,8 mg/kg
Remarks:	Exposure time: 24 hrs			
	Workers	Dermal	Long-term exposure	4 mg/kg
Remarks:	Exposure time: 24 hrs			
	Workers	Inhalation	Long-term exposure	0,35 mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	Sewage treatment plant	150,9 mg/l

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### 8.2 Exposure controls

#### Engineering measures

Provide adequate ventilation.

Local exhaust ventilation may be necessary.

#### Personal protective equipment

Eye protection : Safety glasses

Use eye protection according to EN 166.

Hand protection

Material : Nitrile rubber

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. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Skin and body protection : Protective clothing

Respiratory protection : In case of insufficient ventilation: Respirator with ABEK-P3 filter or self-contained breathing apparatus.

Protective measures : Wash hands before breaks and immediately after handling the product.

#### Environmental exposure controls

General advice : Prevent product from entering environment and drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : pellets

Colour : beige

Odour : acrylic-like

Odour Threshold :  $\geq 0,00096$  ppm  
Butyl acrylate

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Methanol: Do NOT rely on the odour: olfactory level is above the exposure limit.

pH	: No data available
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.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable (solid)
Density	: 0,9 - 1,0 g/cm <sup>3</sup>
Bulk density	: 500 - 600 kg/m <sup>3</sup> Method: ASTM D 1895
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: Not applicable (solid)
Ignition temperature	: > 320 °C
Viscosity	
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

### 9.2 Other information

No data available

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Stable under recommended storage conditions.

#### 10.2 Chemical stability

The product is a stable thermoplastic.

The intended crosslinking reaction occurs in combination with the base resin and moisture: at ambient conditions, in sauna or hot water bath.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : In contact with water or moisture methanol will be released.

#### 10.4 Conditions to avoid

Conditions to avoid : Exposure to moisture

#### 10.5 Incompatible materials

Materials to avoid : None known.

#### 10.6 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

#### 11.1 Information on toxicological effects

##### Acute toxicity

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

##### Components:

##### **Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.:**

Acute oral toxicity : LD50 (Rat): 1.470 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Read-across (Analogy)

##### **Skin corrosion/irritation**

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



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### **Product:**

Species: reconstructed human epidermis (RhE)  
Method: OECD Test Guideline 439  
Result: No skin irritation

### **Serious eye damage/eye irritation**

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

### **Product:**

Species: Bovine cornea  
Method: OECD Test Guideline 437  
Result: No eye irritation

### **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**

Suspected of damaging the unborn child.

### **Components:**

#### **Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene:**

Effects on fertility : Test Type: Pre-/postnatal development  
Species: Rabbit, female  
Application Route: Oral  
Dose: 50 mg/kg  
Method: OECD Test Guideline 414  
Result: Some evidence of adverse effects on development, based on animal experiments.  
GLP: yes

### **STOT - single exposure**

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

### **STOT - repeated exposure**

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

### **Aspiration toxicity**

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

### **Further information**

### **Product:**

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Remarks: However, during crosslinking reaction in combination with base resin: methanol may be released. Methanol: Toxic by inhalation, in contact with skin and if swallowed. Very serious irreversible effects through inhalation, in contact with skin and if swallowed. 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.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### **Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0,2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: No effect up to the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,2 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No effect up to the limit of solubility.

Toxicity to algae : EC50 (Selenastrum capricornutum (fresh water algae)): > 0,2 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No effect up to the limit of solubility.

### 12.2 Persistence and degradability

#### Product:

Biodegradability : Remarks: Not readily biodegradable.

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Does not accumulate in organisms.

### 12.4 Mobility in soil

#### Product:

Mobility : Remarks: The product is insoluble and floats on water., Not expected to adsorb on soil.

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### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### 12.6 Other adverse effects

**Product:**

Additional ecological information : Remarks: The product is not considered hazardous for the environment.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Check with local regulations.  
Dispose of contents/ container to an approved waste disposal plant.

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

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## SECTION 14: Transport information

### 14.1 UN number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

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

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

Remarks : Not applicable

## SECTION 15: Regulatory information

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

#### Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

### 15.2 Chemical safety assessment

no

## SECTION 16: Other information

#### Full text of H-Statements

H302 : Harmful if swallowed.  
H314 : Causes severe skin burns and eye damage.  
H318 : Causes serious eye damage.  
H361d : Suspected of damaging the unborn child.  
H412 : Harmful to aquatic life with long lasting effects.  
H413 : May cause long lasting harmful effects to aquatic life.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Dam. : Serious eye damage  
Repr. : Reproductive toxicity  
Skin Corr. : Skin corrosion

#### Further information

Other information : Issued according to Regulation (EC) No 1907/2006, Annex II, and its amendments.  
Changes since the last version are highlighted in the margin.  
This version replaces all previous versions.

Issuer : Borealis, Group Product Stewardship / Niina Kerttula

Sources of key data used to : Information given is based on tests on the mixture itself.

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compile the Safety Data  
Sheet

Information given is based on data of the components.  
The classification information of components is based on raw  
material supplier data.

### Disclaimer

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