

SAFETY DATA SHEET

Borlink™ LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Borlink LE0500-15

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

Emergency telephone number : Borealis Compounds Inc, William E Wallace: +1 908 850 6243
+1 215 207 0061 (regional number, NCEC Carechem 24)

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.

Prepared by : Borealis, Group Product Stewardship / Maarit Vakkala

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

The product burns, but is not classified as flammable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : The product is a polyethylene copolymer.
It contains carbon black.

Hazardous components

Chemical name	CAS-No.	Concentration (%)
carbon black	1333-86-4	>= 30 - < 60

Actual concentration or concentration range is withheld as a trade secret

Borlink is a trademark of the Borealis group.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com



SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

SECTION 4. FIRST AID MEASURES

- If inhaled : No hazards which require special first aid measures.
- In case of skin contact : Cool melted product on skin with plenty of water. Do not remove solidified product.
- In case of eye contact : Flush eyes with water as a precaution. If symptoms persist, call a physician.
- If swallowed : Rinse mouth with water. If symptoms persist, call a physician.
- 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.
- 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 : No specific measures identified. The product is not considered hazardous for 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.

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

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.
- Advice on safe handling : During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released. Provide adequate ventilation. Local exhaust ventilation may be necessary. Avoid inhalation of dust and decomposition fumes.
- Conditions for safe storage : Safety aspects do not require any special precautions in terms of storage.
- 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
carbon black	1333-86-4	TWA	3.5 mg/m ³	CA AB OEL
		TWAEV	3.5 mg/m ³	CA QC OEL
		TWA (Inhalable)	3 mg/m ³	CA BC OEL
		TWA (Inhalable fraction)	3 mg/m ³	ACGIH

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

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

Personal protective equipment

- Respiratory protection : In case of dust development use dust mask.

Hand protection

- Remarks : For prolonged or repeated contact use protective gloves. PVC or other plastic material gloves

- Eye protection : Safety glasses with side-shields

- Skin and body protection : Protective suit

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : pellets

Colour : black

Odour : odourless

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.

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable (solid)

Density : 1.1 - 1.2 g/cm³

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Partition coefficient: n-octanol/water : Not applicable insoluble

Auto-ignition temperature : > 320 °C

Viscosity
Viscosity, kinematic : Not applicable (solid)

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is a stable thermoplastic with no chemical reactivity below 140°C. Above 140°C the intended crosslinking reaction occurs.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong oxidizing agents Reducing agents Strong acids and strong bases
Hazardous decomposition products	:	Under fire conditions: Carbon monoxide

During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released.

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.

ACGIH

Confirmed animal carcinogen with unknown relevance to humans

carbon black

1333-86-4

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

Reproductive toxicity

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

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:

Remarks: The product is not classified as hazardous for human. Information given is based on data of the components.

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 % saturated solution
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202
Remarks: No effect up to the limit of solubility.

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 % saturated solution
End point: Growth rate
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
Remarks: No effect up to the limit of solubility.

LOEC (Pseudokirchneriella subcapitata (green algae)): > 100 % saturated solution
Method: calculated

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC (Daphnia magna (Water flea)): > 100 % saturated solution
Method: calculated
Remarks: No effect up to the limit of solubility.

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

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: The product is insoluble and sinks in water.
Not expected to adsorb on soil.

Other adverse effects

Product:

Additional ecological information : The product is not classified as hazardous for the environment.
Information given is based on tests on the mixture itself.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Reuse or recycle if not contaminated.
The product may be safely used as fuel.
Proper combustion does not require any special flue gas control.
Check with local regulations.

Contaminated packaging : 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

IMDG-Code

Not regulated as a dangerous good

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017

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

Not applicable for product as supplied.

National Regulations

TDG

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

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

- Canadian PBT Chemicals** : This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:
1,4-bis[1-(tert-butylperoxy)-1-methylethyl]benzene
- NPRI** : Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

SECTION 16. OTHER INFORMATION

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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 : 08/23/2019

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 RESPONSIBLE FOR THE APPROPRIATE, SAFE AND LEGAL USE, PROCESSING AND HANDLING OF OUR PRODUCTS.

No liability can be accepted in respect of the use of Borealis' products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

SAFETY DATA SHEET

Borlink LE0500-15

Version 4.0

Revision Date 08/23/2019

Former date 04/20/2017
