according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Trade name : BYPCOF11C

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

Trabrennstrasse 6-8, 1020 Vienna, Austria

Telephone: +43 1 22400 0

E-mail address : 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)

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Precautionary statements : Prevention:

P261 Avoid breathing dust.



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P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:

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

Hazardous components which must be listed on the label:

N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethyl piperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine maleic anhydride

2.3 Other hazards

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

The product burns, but is not classified as flammable.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : The product is a polypropylene polymer.

It contains additives.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
N,N,N,N-tetrakis(4,6-bis(butyl-(N-	106990-43-6	Skin Sens. 1; H317	>= 0,25 - < 1



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methyl-2,2,6,6-tetramethyl piperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine bis(2,2,6,6-tetramethyl-4-piperidinyl)decanedioate	401-990-0 613-078-00-1 01-0000015180-83 52829-07-9 258-207-9	Aquatic Chronic 2; H411 STOT RE 2; H373 Eye Dam. 1; H318 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute	>= 0,25 - < 1
maleic anhydride	108-31-6 203-571-6 607-096-00-9 UK-20-7333232785- 4-0000	aquatic toxicity): 1 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1A; H317 STOT RE 1; H372 EUH071 specific concentration limit Skin Sens. 1A; H317 >= 0,001 %	>= 0,001 - < 0,1

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.

If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and plenty of water.

Call a physician if irritation develops or persists.

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.

In case of eye contact : Flush eyes with water as a precaution.

Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth with water.

Consult a physician if necessary.



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4.2 Most important symptoms and effects, both acute and delayed

Symptoms : 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.

Skin contact may provoke the following symptoms:

Irritation

Risks : May cause an allergic skin reaction.

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.

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

for firefighters

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

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

Should not be released into the environment.

It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of plastics in to the environment.



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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.

Recycle or dispose loose material properly.

Do not flush into surface water or sanitary sewer system.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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.

Avoid contact with skin and eyes.

During processing and thermal treatment of the product, fumes of possible decomposition products can be formed.

Avoid inhalation of dust and decomposition fumes.

Provide adequate ventilation.

Local exhaust ventilation or additional personal protective

equipment (PPE) may be necessary.

May cause sensitisation of susceptible persons.

Personnel sensitised to this substance should not be allowed

to handle the product.

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.

Dust from the product represents a risk for dust explosions when dispersed with air in a sufficient concentration and with the presence of an ignition source. Therefore special focus is required for handling activities such as air conveying, which may form dust. Equipment exposed to dust needs to be ATEX compliant and designed accordingly. Routine housekeeping will also contribute in preventing risks of dust explosions.

Further information available on request.

Hygiene measures : When using do not eat, drink or smoke. Wash hands before

breaks and at the end of workday.



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Provide adequate ventilation. Local exhaust ventilation may be necessary.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Safety aspects do not require any special precautions in terms

of storage.

On places where bagged products are stored control of ignition sources shall be implemented because big quantities represent a big combustible load. For storage in silo's equipment needs to be properly earthed to prevent static

electricity.

Further information on storage stability

Keep in a dry place.

7.3 Specific end use(s)

Specific use(s) : Raw material for plastics industry

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

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

Substance name	End Use	Exposure routes	Potential health effects	Value
N,N,N,N-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethyl piperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine	Workers	Inhalation	Long-term	0,36 mg/kg
	Workers	Dermal	Long-term	0,05 mg/kg
	Consumers	Dermal	Long-term	0,025 mg/kg
	Consumers	Oral	Long-term	0,025 mg/kg

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

Substance name	Environmental Compartment	Value
N,N,N,N-tetrakis(4,6-bis(butyl-(N-	Fresh water	0,06 mg/l
methyl-2,2,6,6-tetramethyl		-
piperidin-4-yl)amino)triazin-2-yl)-		
4,7-diazadecane-1,10-diamine		



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Marine water	0,006 mg/l
Fresh water sediment	28,3 mg/kg
Marine sediment	2,83 mg/kg

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

Remarks : Protective gloves complying with EN 374.

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.

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 : Appropriate personal protective equipment (PPE) shall be

worn in accordance with Regulation (EU) 2016/425.

Environmental exposure controls

General advice : Should not be released into the environment.

It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of

plastics in to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : powder

Colour : coloured

Odour : odourless



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Melting point/range : 130 - 170 °C

Boiling range : Decomposes on heating.

Flammability : The product is not flammable.

Upper explosion limit / Upper

flammability limit

Not applicable

Lower explosion limit / Lower :

flammability limit

Not applicable

Flash point : Not applicable, (solid)

Auto-ignition temperature : > 320 °C

pH : Not applicable insoluble

Viscosity

Viscosity, dynamic : No data available

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

Not applicable insoluble

Vapour pressure : Not applicable

(solid)

Density : 0,9 - 1,0 g/cm³

Particle size : 3 - 10 mm

9.2 Other information

Explosives : Not explosive

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

Evaporation rate : Not applicable

(solid)

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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.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

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.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Components:

bis(2,2,6,6-tetramethyl-4-piperidinyl)decanedioate:

Acute oral toxicity : LD50 (Rat): 3.700 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,5 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rat): > 3.170 mg/kg

Skin corrosion/irritation

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



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Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

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

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.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

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

12.1 Toxicity

Components:

bis(2,2,6,6-tetramethyl-4-piperidinyl)decanedioate:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0,57 mg/l

aquatic invertebrates

Exposure time: 48 h Test Type: Short term

M-Factor (Short-term (acute) : 1

aquatic hazard)

Toxicity to daphnia and other : EC50: 0.96 mg/l

aquatic invertebrates

Exposure time: 21 d

(Chronic toxicity) Species: Daphnia magna (Water flea)

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: Not expected to adsorb on soil.

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 Endocrine disrupting properties

Product:

Assessment The substance/mixture does not contain components

considered to have endocrine disrupting properties according



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to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological

information

: Should not be released into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of contents/ container to an approved waste disposal

plant.

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

14.1 UN number or ID 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

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN,

IMDG-Code, ICAO/IATA-DGR



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14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not 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.

H317 : May cause an allergic skin reaction. H318 : Causes serious eye damage.

H334 : May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

H361f : Suspected of damaging fertility.

H372 : Causes damage to organs through prolonged or repeated

exposure if inhaled.

H373 : May cause damage to organs through prolonged or repeated

exposure.

H400 : Very toxic to aquatic life.

H411 : Toxic to aquatic life with long lasting effects.

EUH071 : Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam.Repr.Reproductive toxicityResp. Sens.Respiratory sensitisation

Skin Corr. : Skin corrosion Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure



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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 / Robert Lucas

Sources of key data used to compile the Safety Data

Sheet

The classification information of components is based on raw

material supplier data.

Classification of the mixture: Classification procedure:

Skin Sens. 1 H317 Calculation method

Disclaimer

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