according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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

1.1 Product identifier

Trade name : PP Y40-04

Unique Formula Identifier

(UFI)

: H2SJ-5SU6-1468-JMFC

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

+1 760 476 3962 (3E), Access code: 336296

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.

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according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

Precautionary statements : Prevention:

P261 Avoid breathing dust.

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

Poly[(N,N"-1,2-ethanediylbis-1,3-propanediamine)-co-(2,4,6-trichloro-1,3,5-triazine)-co-(N-butyl-2,2,6,6-tetramethyl-4-piperidinam 6,6'-di-tert-butyl-4,4'-thiodi-m-cresol

maleic anhydride

Additional Labelling

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

uu

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.

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.

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PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : It contains post-industrial recycled polymer.

It contains carbon black.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
titaniumdioxide	13463-67-7 236-675-5 01-2119489379-17	Carc. 2; H351	>= 10 - < 20
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	106990-43-6 401-990-0 613-078-00-1 01-0000015180-83	Skin Sens. 1; H317 Aquatic Chronic 2; H411 STOT RE 2; H373	>= 0,25 - < 1
bis(2,2,6,6-tetramethyl-4- piperidinyl)decanedioate	52829-07-9 258-207-9	Eye Dam. 1; H318 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1	>= 0,25 - < 1
Poly[(N,N"-1,2-ethanediylbis-1,3-propanediamine)-co-(2,4,6-trichloro-1,3,5-triazine)-co-(N-butyl-2,2,6,6-tetramethyl-4-piperidinam	136504-96-6 500-311-6 01-2119917320-51	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 0,25 - < 1
maleic anhydride	108-31-6 203-571-6 607-096-00-9 UK-20-7333232785- 4-0000	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	>= 0,001 - < 0,1
		specific concentration limit Skin Sens. 1A; H317 >= 0,001 %	





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

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

Symptoms of poisoning (methanol):

Daze Dizziness Nausea

Abdominal pain Respiratory disorders

Symptoms of poisoning, prolonged exposure (methanol):

Blindness

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.





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

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.





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

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.

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

breaks and at the end of workday.

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.

Further information on

storage stability

Keep in a dry place.

7.3 Specific end use(s)

Specific use(s) : Raw material for industry

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	Control parameters	Basis
		of exposure)		
methanol	67-56-1	TWA	200 ppm	2006/15/EC
			260 mg/m3	
Further information	Indicative, Identifies the possibility of significant uptake through the skin			





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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		
	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

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.

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according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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 : pellets
Colour : black
Odour : slight

Melting point/range : 100 - 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

Vapour pressure

Not applicable insoluble

: Not applicable

(solid)

Density : 1,1 - 1,2 g/cm³

Particle size : 3 - 10 mm





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

Method: Image analysis (surface-based)

9.2 Other information

Explosives : Not explosive

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

Evaporation rate : Not applicable

(solid)

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.

During crosslinking reaction in combination with base resin: methanol





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

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.

Product:

Remarks : The classification as a carcinogen by inhalation applies only to

mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with

aerodynamic diameter <= 10 µm.

Reproductive toxicity

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

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according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

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)





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

Poly[(N,N"-1,2-ethanediylbis-1,3-propanediamine)-co-(2,4,6-trichloro-1,3,5-triazine)-co-(Nbutyl-2,2,6,6-tetramethyl-4-piperidinam:

: LC50 (zebrafish (Brachydanio rerio)): > 119 mg/l Toxicity to fish

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 7,3 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

: IC50 (Selenastrum capricornutum (green algae)): 1,2 mg/l

plants

Exposure time: 72 h

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:

: This substance/mixture contains no components considered Assessment

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:

The substance/mixture does not contain components Assessment

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.





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

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.

Category Quantity 1 Quantity 2
ENVIRONMENTAL 200 t 500 t

HAZARDS

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.

H351 : Suspected of causing cancer 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

Carc. : Carcinogenicity
Eye Dam. : Serious eye damage
Repr. : Reproductive toxicity
Resp. Sens. : Respiratory sensitisation

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





according to Regulation (EC) No. 1907/2006

PP Y40-04

Version 2.0 Revision Date: 03.06.2024 Former date: 21.02.2023

STOT RE : Specific target organ toxicity - repeated exposure 2006/15/EC : Europe. Indicative occupational exposure limit values

2006/15/EC / TWA : Limit Value - eight hours

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

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

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