SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres

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

1.1. Product identifier

:	Bekaer
:	
:	Not ap
:	Article
	:

: Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres .

: Not applicable (article)

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

1.2.1 Relevant identified uses

concrete reinforcement

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

NV Bekaert SA Bekaertstraat 2 B-8550 Zwevegem ☎ +32 56 76 61 11 ➡ +32 56 76 77 93 info@bekaert.com

1.4. Emergency telephone number

During business hours : +32 56 76 61 11

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.2. Label elements

Labelling does not apply to articles

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

This article does not contain any notifiable substances

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

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

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG) Technische Schoolstraat 43 A, B-2440 Geel http://www.big.be © BIG vzw Reason for revision: 1; 2; 5; 8; 12; 14 Revision number: 0102

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Product number: 47881

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134-16527-640-en

4.2.1 Acute symptoms
After inhalation:
No effects known.
After skin contact:
ON CONTINUOUS EXPOSURE/CONTACT: Dry skin.
After eye contact:
No effects known.
After ingestion:
No effects known.
4.2.2 Delayed symptoms
No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (not alcohol-resistant).

5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion. Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, phosphorus oxides.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

- 6.1.1 Protective equipment for non-emergency personnel
 - See heading 8.2
- 6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing. Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

No data available

6.3. Methods and material for containment and cleaning up

Pick-up the material.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store in a dry area. Keep out of direct sunlight. Meet the legal requirements.

- 7.2.2 Keep away from:
- Heat sources, oxidizing agents, halogens.
- **7.2.3 Suitable packaging material:** Synthetic material.
 - Synthetic material.
- 7.2.4 Non suitable packaging material: No data available

7.3. Specific end use(s)

Reason for revision: 1; 2; 5; 8; 12; 14

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

Belgium			
Particules non classifiées autrement (fraction alvéolaire)	Time-weighted average exposure limit 8 h	3 mg/m³	
Particules non classifiées autrement (fraction inhalable)	Time-weighted average exposure limit 8 h	10 mg/m³	
France			
Poussières réputées sans effet spécifique, fraction	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	5 mg/m³	
Poussières réputées sans effet spécifique	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 mg/m³	
Germany		·	
Allgemeiner Staubgrenzwert: Alveolengängige Fraktion	Time-weighted average exposure limit 8 h (TRGS 900)	1.25 mg/m ³	
Allgemeiner Staubgrenzwert: Einatembare Fraktion	Time-weighted average exposure limit 8 h (TRGS 900)	10 mg/m³	
UK			
Inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³	
Respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³	

USA (TLV-ACGIH)

Particulates (insoluble or poorly soluble)(NOS)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	10 mg/m³ (I)
	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	3 mg/m³ (R)
(I): Inhalable fraction		

(R): Respirable fraction

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

- 8.1.3 Applicable limit values when using the substance or mixture as intended
 - If limit values are applicable and available these will be listed below.
- 8.1.4 Threshold values
 - If applicable and available it will be listed below.
- 8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:

Dust production: dust mask with filter type P1.

b) Hand protection:

Protective gloves against chemicals (EN374).

c) Eye protection:

Safety glasses. In case of dust production: protective goggles.

- d) Skin protection:
- Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Solid	
	Fibres	
Odour	Odourless	
Odour threshold	Not applicable	
Colour	White	
Particle size	No data available	

Reason for revision: 1; 2; 5; 8; 12; 14

Explosion limits	No data available	
Flammability	Non-flammable	
Log Kow	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	
Melting point	> 165 °C	
Boiling point	No data available	
Evaporation rate	No data available	
Relative vapour density	Not applicable	
Vapour pressure	No data available	
Solubility	Water ; < 0.1 g/100 ml	
Relative density	0.91	
Decomposition temperature	No data available	
Auto-ignition temperature	400 °C	· · · · · · · · · · · · · · · · · · ·
Flash point	355 °C	
Explosive properties	No chemical group associated with explosive properties	
Oxidising properties	No chemical group associated with oxidising properties	
рН	No data available	

9.2. Other information

Absolute density	910 kg/m³
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SECTION 10: Stability and reactivity

10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard. No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No reactions to be expected.

10.4. Conditions to avoid

Precautionary measures

Avoid raising dust. Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents, halogens.

10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

<u>Bekaert Duomix ® (M6-M12-M20) - Duomix ® Fire (M6,M12) - Bekaert Synmix ® (SP, HP); Polypropylene fibres</u> No (test)data available

<u>Conclusion</u> Not classified for acute toxicity

Corrosion/irritation

Bekaert Duomix ® (M6-M12-M20) - Duomix ® Fire (M6,M12) - Bekaert Synmix ® (SP, HP); Polypropylene fibres

No (test)data available <u>Conclusion</u> Not classified as irritating to the skin Not classified as irritating to the succ

Not classified as irritating to the eyes Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available <u>Conclusion</u> Not classified as sensitizing for inhalation Not classified as sensitizing for skin

Specific target organ toxicity

Reason for revision: 1; 2; 5; 8; 12; 14

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available

Mutagenicity (in vivo)

Bekaert Duomix * (M6-M12-M20) - Duomix * Fire (M6,M12) - Bekaert Synmix * (SP, HP); Polypropylene fibres No (test)data available

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

Bekaert Duomix
[®] (M6-M12-M20) - Duomix
[®] Fire (M6,M12) - Bekaert Synmix
[®] (SP, HP); Polypropylene fibres
No (test)data available

<u>Conclusion</u>

Not classified for carcinogenicity

Reproductive toxicity

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available

Chronic effects from short and long-term exposure

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Bekaert Duomix [®] (M6-M12-M20) - Duomix [®] Fire (M6,M12) - Bekaert Synmix [®] (SP, HP); Polypropylene fibres No (test)data available

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

Not readily biodegradable in water

12.3. Bioaccumulative potential

Bekaert Duomix ® (M6-M12-M20) - Duomix ® Fire (M6,M12) - Bekaert Synmix ® (SP, HP); Polypropylene fibres

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Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

Not bioaccumulative

12.4. Mobility in soil

Adsorbs into the soil

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Bekaert Duomix
[®] (M6-M12-M20) - Duomix
[®] Fire (M6,M12) - Bekaert Synmix
[®] (SP, HP); Polypropylene fibres
Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Reason for revision: 1; 2; 5; 8; 12; 14

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

17 02 03 (wood, glass and plastic: Plastic).

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Remove to an authorized waste treatment plant.

13.1.3 Packaging/Container

European Union

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Waste material code packaging (Directive 2008/98/EC). 15 01 02 (plastic packaging).

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14.	.1. ON number	-	
	Transport	Not subject	
14.	.2. UN proper shipping name		
14.	.3. Transport hazard class(es)		
	Hazard identification number		
	Class		
	Classification code		
14.	.4. Packing group		
	Packing group		
	Labels		
14.	.5. Environmental hazards	•	
	Environmentally hazardous substance mark	no	
14.	6. Special precautions for user		
	Special provisions		
	Limited quantities		
14.	.7. Transport in bulk according to Annex II of Marpol and the IBC Code		
	Annex II of MARPOL 73/78	Not applicable	
		, ···	
ECTIO	N 15: Regulatory information		
	Safety, health and environmental regulations/legislation sp	ocific for the substance or mixture	
		ecilic for the substance of mixture	
<u>EU</u>	ropean legislation:		
١	VOC content Directive 2010/75/EU		
	VOC content	Remark	
	0 %		
	0,0		
Na	tional legislation Belgium		
	No data available		
<u>Na</u>	tional legislation The Netherlands		
	Waterbezwaarlijkheid Not applicable (article)		
Na	tional legislation France		
110	No data available		
Na	tional legislation Germany		
	WGK Not applicable (article)		
Na	tional legislation United Kingdom		
	No data available		
Ot	her relevant data		
<u></u>	No data available		
15.2.	Chemical safety assessment		
	No chemical safety assessment is required.		
Dooron f-		Dublication data: 2000.00.00	
reason to	r revision: 1; 2; 5; 8; 12; 14	Publication date: 2009-06-09	
		Date of revision: 2019-01-30	
Revision n	umber: 0102	Product number: 47881	6/7

SECTION 16: Other information

(*) INTER	NAL CLASSIFICATION BY BIG
ADI Accep	table daily intake
AOEL Accep	table operator exposure level
CLP (EU-GHS) Classif	fication, labelling and packaging (Globally Harmonised System in Europe)
DMEL Derive	ed Minimal Effect Level
DNEL Derive	ed No Effect Level
EC50 Effect	Concentration 50 %
ErC50 EC50 i	in terms of reduction of growth rate
LC50 Lethal	Concentration 50 %
LD50 Lethal	Dose 50 %
NOAEL No Ob	oserved Adverse Effect Level
NOEC No Ob	oserved Effect Concentration
OECD Organ	isation for Economic Co-operation and Development
PBT Persis	tent, Bioaccumulative & Toxic
PNEC Predic	ted No Effect Concentration
STP Sludge	e Treatment Process
vPvB very P	ersistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Reason for revision: 1; 2; 5; 8; 12; 14