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) - UMix; Polypropylene fibres

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

1.1. Product identifier
Product name: Bekaert Duomix ® (M6-M12-M20) - Duomix ® Fire (M6,M12) - Bekaert Synmix ® (SP, HP) - Umix; Polypropylene fibres
Synonyms: Not applicable (article)
Registration number REACH: Article
Product type REACH

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
힐 +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
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:

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.
7.2.4 Non suitable packaging material:
No data available

7.3. Specific end use(s)
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.

<table>
<thead>
<tr>
<th>Country</th>
<th>Particulate Type</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Particules non classifiées autrement (fraction alvéolaire)</td>
<td>Time-weighted average exposure limit 8 h = 3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Particules non classifiées autrement (fraction inhalable)</td>
<td>Time-weighted average exposure limit 8 h = 10 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>Poussières réputées sans effet spécifique, fraction</td>
<td>Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) = 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Poussières réputées sans effet spécifique</td>
<td>Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) = 10 mg/m³</td>
</tr>
<tr>
<td>Germany</td>
<td>Allgemeiner Staubgrenzwert: Alveolengängige Fraktion</td>
<td>Time-weighted average exposure limit 8 h (TRGS 900) = 1.25 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Allgemeiner Staubgrenzwert: Einatembare Fraktion</td>
<td>Time-weighted average exposure limit 8 h (TRGS 900) = 10 mg/m³</td>
</tr>
<tr>
<td>UK</td>
<td>Inhalable dust</td>
<td>Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) = 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Respirable dust</td>
<td>Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) = 4 mg/m³</td>
</tr>
<tr>
<td>USA (TLV-ACGIH)</td>
<td>Particulates (insoluble or poorly soluble)(NOS)</td>
<td>Time-weighted average exposure limit 8 h (TLV - Adopted Value) = 10 mg/m³ (I)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time-weighted average exposure limit 8 h (TLV - Adopted Value) = 3 mg/m³ (R)</td>
</tr>
</tbody>
</table>

(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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical form</td>
<td>Solid Fibres</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Particle size</td>
<td>No data available</td>
</tr>
</tbody>
</table>
### 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

### 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

### pH
No data available

### Absolute density
910 kg/m³

### 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**

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

No (test)data available

**Conclusion**
Not classified for acute toxicity

**Corrosion/irritation**

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

No (test)data available

**Conclusion**
Not classified as irritating to the skin
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) - UMix; Polypropylene fibres

No (test)data available

**Conclusion**
Not classified as sensitizing for inhalation
Not classified as sensitizing for skin

**Specific target organ toxicity**
Bekaert Duomix ® (M6-M12-M20) - Duomix ® Fire (M6,M12) - Bekaert Synmix ® (SP, HP) - UMix; Polypropylene fibres

Mutagenicity (in vitro)

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

Conclusion
Not classified for carcinogenicity

Reproductive toxicity

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

Log Kow

<table>
<thead>
<tr>
<th>Method</th>
<th>Remark</th>
<th>Value</th>
<th>Temperature</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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) fulfill(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) - UMix; Polypropylene fibres
Fluorinated greenhouse gases (Regulation (EU) No 517/2014)
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

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
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. UN number
Transport
Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)
Hazard identification number

14.4. Packing group
Packing group

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
European legislation:
VOC content Directive 2010/75/EU

<table>
<thead>
<tr>
<th>VOC content</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 %</td>
<td></td>
</tr>
</tbody>
</table>

National legislation Belgium
No data available

National legislation The Netherlands
Waterbezwaarlijkheid
Not applicable (article)

National legislation France
No data available

National legislation Germany
WGK
Not applicable (article)

National legislation United Kingdom
No data available

Other relevant data
No data available

15.2. Chemical safety assessment
No chemical safety assessment is required.
SECTION 16: Other information

(*) INTERNAL CLASSIFICATION BY BIG
ADL Acceptable daily intake
AOEL Acceptable operator exposure level
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
EC50 Effect Concentration 50 %
ErC50 EC50 in terms of reduction of growth rate
LC50 Lethal Concentration 50 %
LD50 Lethal Dose 50 %
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
OECD Organisation for Economic Co-operation and Development
PBT Persistent, Bioaccumulative & Toxic
PNEC Predicted No Effect Concentration
STP Sludge Treatment Process
vPvB very Persistent & 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.