

## Safety Data Sheet BETOCEM FLOW

Safety Data Sheet dated 5/8/2015, version 3



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

1.1. Product identifier

Mixture identification:

Trade name: BETOCEM FLOW

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

Recommended use:

High resistance fibres reinforced fluid technical mortar for degraded concrete repairing

Uses advised against:

All uses not included in the recommended uses

1.3. Details of the supplier of the safety data sheet

Company:

COLMEF SRL

Z.I. Ponte d'Assi

06024 - GUBBIO (PG)

Tel. +39-075-923561 (8:00-13:00;14:30-18:00)

Competent person responsible for the safety data sheet:

ufficiotecnico@colmef.com


1.4. Emergency telephone number

COLMEF SRL Tel. +39-075-923561 (8:00-13:00;14:30-18:00)


### SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

 Danger, Eye Dam. 1, Causes serious eye damage.

 Warning, Skin Sens. 1, May cause an allergic skin reaction.

 Warning, STOT SE 3, May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements:

P102 Keep out of reach of children.

P261 Avoid breathing dust.

P280 Wear protective gloves/clothing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER or doctor/physician.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

#### Special Provisions:

None

#### Contents

Portland cement, Cr(VI) < 2ppm

#### Special provisions according to Annex XVII of REACH and subsequent amendments:

None

#### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

#### Other Hazards:

No other hazards





## SECTION 3: Composition/information on ingredients

### 3.1. Substances

N.A.

### 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
50% - 75%	free crystalline silica ( $\varnothing > 10 \mu$ )	CAS: 14808-60-7 EC: 238-878-4	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
25% - 50%	Portland cement, Cr(VI) < 2ppm	CAS: 65997-15-1 EC: 266-043-4	 3.8/3 STOT SE 3 H335  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### In case of skin contact:

Immediately take off all contaminated clothing.  
**OBTAIN IMMEDIATE MEDICAL ATTENTION.**  
 Remove contaminated clothing immediately and dispose off safely.  
 After contact with skin, wash immediately with soap and plenty of water.

#### In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.  
 Protect uninjured eye.

#### In case of Ingestion:

Do NOT induce vomiting.

#### In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### Treatment:

None

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#### SECTION 5: Firefighting measures

- 5.1. Extinguishing media  
Suitable extinguishing media:  
Water.  
Carbon dioxide (CO<sub>2</sub>).  
Extinguishing media which must not be used for safety reasons:  
None in particular.
- 5.2. Special hazards arising from the substance or mixture  
Do not inhale explosion and combustion gases.  
Burning produces heavy smoke.
- 5.3. Advice for firefighters  
Use suitable breathing apparatus .  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Move undamaged containers from immediate hazard area if it can be done safely.

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#### SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures  
Wear personal protection equipment.  
Remove all sources of ignition.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.  
Provide adequate ventilation.  
Use appropriate respiratory protection.  
See protective measures under point 7 and 8.
- 6.2. Environmental precautions  
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Retain contaminated washing water and dispose it.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.  
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

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#### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
Use localized ventilation system.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
None in particular

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#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

free crystalline silica ( $\text{Ø} > 10\mu$ ) - CAS: 14808-60-7

ACGIH - LTE  $\text{mg}/\text{m}^3$  (8h):  $0.025 \text{ mg}/\text{m}^3$  – Note A2 (R) – Pulm fibrosis, lung cancer

Portland cement, Cr(VI) < 2ppm - CAS: 65997-15-1

ACGIH - LTE  $\text{mg}/\text{m}^3$  (8h):  $1 \text{ mg}/\text{m}^3$  – Note: A4, (E,R) – Pulm func, resp symptoms, asthma

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

##### 8.2. Exposure controls

Eye protection:

Use close fitting safety goggles certified in accordance with EN 166, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber. certified in accordance with EN 374, part 1,2,3.

Respiratory protection:

In case of insufficient ventilation or prolonged exposure wear suitable respiratory protection equipment certified in accordance with EN 149-FFP2.

The life of the protection devices against the chemical agents depends on various factors (the way they are used, climatic factors and storage conditions), that can reduce also the life foreseen by CE standards.

Always consult the manufacturer's instructions.

Instruct the worker in the correct use of the equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

#### SECTION 9: Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

Appearance	POWDER
Colour:	GREY
Odour:	ODOURLESS
Odour threshold:	N.A.
pH:	IN AQUEOUS SOLUTION ca.12
Melting point / freezing point:	> 1200 °C
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	N.A.
Solubility in water:	N.A.
Solubility in oil:	N.A.
Apparent density ( $\text{g}/\text{cm}^3$ ):	1.3

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Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.
9.2. Other information	
Miscibility:	MISCIBLE PARTIALLY IN WATER
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

#### SECTION 10: Stability and reactivity

- 10.1. Reactivity
  - Stable under normal conditions
- 10.2. Chemical stability
  - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
  - None
- 10.4. Conditions to avoid
  - Stable under normal conditions.
- 10.5. Incompatible materials
  - None in particular.
- 10.6. Hazardous decomposition products
  - None.

#### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
    - Toxicological information of the mixture:
      - N.A.
    - Toxicological information of the main substances found in the mixture:
      - N.A.
- If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:
- a) acute toxicity;
  - b) skin corrosion/irritation;
  - c) serious eye damage/irritation;
  - d) respiratory or skin sensitisation;
  - e) germ cell mutagenicity;
  - f) carcinogenicity;
  - g) reproductive toxicity;
  - h) STOT-single exposure;
  - i) STOT-repeated exposure;
  - j) aspiration hazard.

#### SECTION 12: Ecological information

- 12.1. Toxicity
  - Adopt good working practices, so that the product is not released into the environment.
  - N.A.
- 12.2. Persistence and degradability
  - N.A.
- 12.3. Bioaccumulative potential
  - N.A.
- 12.4. Mobility in soil
  - N.A.
- 12.5. Results of PBT and vPvB assessment

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- vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

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#### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

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#### SECTION 14: Transport information

- 14.1. UN number  
14.2. UN proper shipping name  
ADR-Shipping Name: --  
IATA-Shipping Name: --  
IMDG-Shipping Name: --  
14.3. Transport hazard class(es) --  
14.4. Packing group --  
14.5. Environmental hazards --  
14.6. Special precautions for user --  
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code  
N.A.

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#### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) n. 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
None
- Where applicable, refer to the following regulatory provisions :  
Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.  
Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):  
N.A.
- 15.2. Chemical safety assessment  
No

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#### SECTION 16: Other information

- Full text of phrases referred to in Section 3:  
H335 May cause respiratory irritation.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.

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Paragraphs modified from the previous revision:

SECTION 2: Hazards identification  
SECTION 3: Composition/information on ingredients  
SECTION 4: First aid measures  
SECTION 6: Accidental release measures  
SECTION 8: Exposure controls/personal protection  
SECTION 13: Disposal considerations  
SECTION 15: Regulatory information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold  
CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LTE: Long-term exposure.  
PNEC: Predicted No Effect Concentration.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STE: Short-term exposure.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
WGK: German Water Hazard Class.