According to EC-Regulation 1907/2006 (REACH)

SAFETY DATA SHEET

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

1.1. Product identifier
   Trade name
   Bitumix FLOW-60
   Product no.
   -
   REACH registration number
   Not applicable

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Relevant identified uses of the substance or mixture
   Hydraulic binder for the production of concrete or dry mortar.
   
   Uses advised against
   - 
   The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet
   Company and address
   Bitusal Danmark
   Åmosevej 80, Skellingsted
   4440 Mørkøv
   DK
   CVR 36684062
   Tlf: +45 56 26 82 06
   Contact person
   Bjarne Poulsen
   E-mail
   info@bitusal.com
   SDS date
   06-08-2015
   SDS Version
   1.0

1.4. Emergency telephone number
   Use your national or local emergency number
   See section 4 "First aid measures"

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   Eye Irrit. 2; H319
   See full text of H-phrases in section 2.2.

2.2. Label elements
   Hazard pictogram(s)
According to EC-Regulation 1907/2006 (REACH)

**Signal word**
Warning

**Hazard statement(s)**
Causes serious eye irritation. (H319)

**Safety statement(s)**

<table>
<thead>
<tr>
<th>General</th>
<th>If medical advice is needed, have product container or label at hand. (P101). Keep out of reach of children. (P102).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Wear eye protection. (P280).</td>
</tr>
<tr>
<td><strong>Prevention</strong></td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).</td>
</tr>
<tr>
<td><strong>Response</strong></td>
<td>If eye irritation persists: Get medical advice/attention. (P337+P313).</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Disposal</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

**Identity of the substances primarily responsible for the major health hazards**

2.3. Other hazards

The product is corrosive, when mixed with water.

**Additional labelling**
The content of water-soluble chromate is less than 2 ppm in dry storage up to 12 months from production date. If stored under moist conditions, the chromate reduction can be impaired.

**Additional warnings**

- **VOC**

**SECTION 3: Composition/information on ingredients**

3.1/3.2. Substances/Mixtures

<table>
<thead>
<tr>
<th>NAME:</th>
<th>Cement, alumina, chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDENTIFICATION NOS.:</td>
<td>CAS-no: 65997-16-2 EC-no: 266-045-5</td>
</tr>
<tr>
<td>CONTENT:</td>
<td>95-100%</td>
</tr>
<tr>
<td>CLP CLASSIFICATION:</td>
<td>Eye Irrit. 2</td>
</tr>
<tr>
<td></td>
<td>H319</td>
</tr>
</tbody>
</table>

(*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

**Other informations**

Eye Cat. 2 Sum = Sum(Ci/S(G)CL) = 7.96 - 0  
Skin Cat. 2 Sum = Sum(Ci/S(G)CL) = 0 - 0

**SECTION 4: First aid measures**

4.1. Description of first aid measures

**General information**
In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person’s condition or if the symptoms continue. Never give an unconscious person water or similar.

**Inhalation**
Get the person into fresh air and stay with them.

**Skin contact**
Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

**Eye contact**
Remove contact lenses and ensure eyelids are open and apart. Flush eyes with water or saline water(20-
According to EC-Regulation 1907/2006 (REACH)

30°C) for at least 15 minutes. Seek medical assistance and continue flushing during transport

**Ingestion**
Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

**Burns**
Not applicable

### 4.2. Most important symptoms and effects, both acute and delayed
Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

### 4.3. Indication of any immediate medical attention and special treatment needed
If eye irritation persists: Get medical advice/attention.

**Information to medics**
Bring this safety data sheet.

---

**SECTION 5: Firefighting measures**

5.1. **Extinguishing media**
Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. **Special hazards arising from the substance or mixture**
No special

5.3. **Advice for firefighters**
Wear self-contained breathing apparatus and protective clothing to prevent contact.

---

**SECTION 6: Accidental release measures**

6.1. **Personal precautions, protective equipment and emergency procedures**
No specific requirements.

6.2. **Environmental precautions**
No specific requirements.

6.3. **Methods and material for containment and cleaning up**
Sweep up spills carefully. Use water sprays or ventilated evacuation systems to prevent dust. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

6.4. **Reference to other sections**
See section on "Disposal considerations " with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

---

**SECTION 7: Handling and storage**

7.1. **Precautions for safe handling**
See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. **Conditions for safe storage, including any incompatibilities**
Always store in containers of the same material as the original.

**Storage temperature**
No data available.

7.3. **Specific end use(s)**
This product should only be used for applications described in Section 1.2

---

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

8.1. **Control parameters**
OEL
According to EC-Regulation 1907/2006 (REACH)

Inhalable dust (EH40, 2005)
Long-term exposure limit (8-hour TWA reference period): - ppm | 10 mg/m³
Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

Respirable dust (EH40, 2005)
Long-term exposure limit (8-hour TWA reference period): - ppm | 4 mg/m³
Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

DNEL / PNEC
No data available.

8.2. Exposure controls
Compliance with the stated exposure limits values should be checked on a regular basis.

General recommendations
Observe general occupational hygiene.

Exposure scenarios
If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits
Trade users are covered by the rules of the working environment legislation on maximum concentrations for exposure. See work hygiene threshold values above.

Appropriate technical measures
Airborne gas and dust concentrations must be kept as low as possible and below the current threshold values (see above). Use for example an exhaust system if the normal air flow in the work room is not sufficient. Make sure that eyewash and emergency showers are clearly marked.

Hygiene measures
Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

Measures to avoid environmental exposure
No specific requirements.

Individual protection measures, such as personal protective equipment

Generally
Use only CE marked protective equipment.

Respiratory Equipment
If the ventilation at the work place is not sufficient, use a half or whole mask with an appropriate filter or an air-supplied respiratory protector. The choice depends on the concrete work situation and how long you will be using the product.

Skin protection
Special work clothing should be used.

Hand protection
Use protective gloves. The concrete work situation is not known. Contact the suppliers of the gloves for help on the glove type. Please note that elastic gloves stretch when used. The thickness of the gloves, and therefore their penetration time, will be reduced. Moreover, the temperature of the glove in use is about 35°C, while the standard test, EN 374-3, is done at 23°C. The penetration time is therefore reduced by a factor of 3.

Eye protection
Use face shield. Use safety glasses with a side shield as an alternative.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
<th>pH</th>
<th>Viscosity</th>
<th>Density (g/cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powder</td>
<td>Grey/Brown</td>
<td>None</td>
<td>11-11,5</td>
<td>-</td>
<td>3,15-3,3</td>
</tr>
</tbody>
</table>

Phase changes
According to EC-Regulation 1907/2006 (REACH)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point (°C)</td>
<td>1300</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure (mm Hg)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Data on fire and explosion hazards**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashpoint (°C)</td>
<td>-</td>
</tr>
<tr>
<td>Ignition (°C)</td>
<td>-</td>
</tr>
<tr>
<td>Self ignition (°C)</td>
<td>-</td>
</tr>
<tr>
<td>Explosion limits (Vol %)</td>
<td>-</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>-</td>
</tr>
</tbody>
</table>

**Solubility**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility in water</td>
<td>n-octanol/water coefficient</td>
</tr>
<tr>
<td>Soluble</td>
<td>-</td>
</tr>
</tbody>
</table>

**9.2. Other information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility in fat</td>
<td>Additional information</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

The product is stable under the conditions, noted in the section on "Handling and storage".

**10.3. Possibility of hazardous reactions**

No special

**10.4. Conditions to avoid**

No special

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance</td>
<td>Species</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>No data available.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No data available.</td>
</tr>
<tr>
<td>Long term effects</td>
<td>Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.</td>
</tr>
</tbody>
</table>
According to EC-Regulation 1907/2006 (REACH)

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Test</th>
<th>Test duration</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Biodegradability</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Potential bioaccumulation</th>
<th>LogPow</th>
<th>BFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement, alumina, chemicals</td>
<td>No</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

<table>
<thead>
<tr>
<th>Waste</th>
<th>EWC code</th>
<th>Specific labelling</th>
<th>Contaminated packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

Not listed as dangerous goods under ADR and IMDG regulations.

14.1 – 14.4

<table>
<thead>
<tr>
<th>ADR/RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
</tr>
<tr>
<td>14.4. Packing group</td>
</tr>
<tr>
<td>Notes</td>
</tr>
<tr>
<td>Tunnel restriction code</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG</th>
<th>UN-no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>PG*</td>
<td></td>
</tr>
<tr>
<td>EmS</td>
<td></td>
</tr>
<tr>
<td>MP**</td>
<td></td>
</tr>
<tr>
<td>Hazardous constituent</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IATA/ICAO</th>
<th>UN-no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>PG*</td>
<td></td>
</tr>
</tbody>
</table>
According to EC-Regulation 1907/2006 (REACH)

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

Demands for specific education

Additional information

Sources

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H319 - Causes serious eye irritation.

The full text of identified uses as mentioned in section 1

Other symbols mentioned in section 2

Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

The safety data sheet is validated by

MJ/ CHYMEIA

Date of last essential change
(First cipher in SDS version)

Date of last minor change
(Last cipher in SDS version)