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 AC Hardener
   - 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
     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
   - Flam. Liq. 2; H225
   - Acute Tox. 3; H301
   - Skin Sens. 1; H317
   - Skin Irrit. 2; H315
   - STOT SE 3; H335

   - 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**
Danger

**Hazard statement(s)**
- Highly flammable liquid and vapour. (H225)
- Toxic if swallowed. (H301)
- May cause an allergic skin reaction. (H317)
- Causes skin irritation. (H315)
- May cause respiratory irritation. (H335)

**General**
Wash hands/exposed areas/exposed skin/hands and exposed skin thoroughly after handling. (P264).

**Safety statement(s)**
- Wear protective gloves/protective clothing. (P280).
- Specific treatment (see on this label). (P321).
- IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310).

**Storage**
Store in a well-ventilated place. Keep cool. (P403+P235).

**Disposal**
Dispose of contents/container to an approved waste disposal plant. (P501).

**Identity of the substances primarily responsible for the major health hazards**
- methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate, 2-ethylhexyl acrylate, 1,1,4-methylphenyl, imino, dipropan-2-ol

**2.3. Other hazards**
The product is corrosive, when mixed with water.

**Additional labelling**
- 

**Additional warnings**
- 

**VOC**
- 

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

### 3.1/3.2. Substances/Mixtures

<table>
<thead>
<tr>
<th>NAME</th>
<th>IDENTIFICATION NOS.:</th>
<th>CONTENT:</th>
<th>CLP CLASSIFICATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate</td>
<td>CAS-no: 80-62-6 EC-no: 201-297-1 REACH-no: 01-2119452498-28-xxxx Index-no: 607-035-00-6</td>
<td>60-80%</td>
<td>Flam. Liq. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H225, H315, H317, H335</td>
</tr>
<tr>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>IDENTIFICATION NOS.:</th>
<th>CONTENT:</th>
<th>CLP CLASSIFICATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-ethylhexyl acrylate</td>
<td>CAS-no: 103-11-7 EC-no: 203-080-7 REACH-no: 01-2119453158-37-xxxx Index-no: 607-107-00-7</td>
<td>10-15%</td>
<td>STOT SE 3, Skin Irrit. 2, Skin Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H315, H317, H335</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>IDENTIFICATION NOS.:</th>
<th>CONTENT:</th>
<th>CLP CLASSIFICATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,4-methylphenyl, imino, dipropan-2-ol</td>
<td>CAS-no: 38668-48-3 EC-no: 254-075-1</td>
<td>1-3%</td>
<td>Acute Tox. 2, Eye Irrit. 2, Aquatic Chronic 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H300, H319, H412</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.
According to EC-Regulation 1907/2006 (REACH)

S = Organic solvent

**Other informations**

ATEmix(oral) = 161.6 - 242.4
Eye Cat. 2 Sum = \( \text{Sum}(\text{Ci}/S(\text{G})(\text{CL})) = 0.2 - 0.3 \)
Skin Cat. 2 Sum = \( \text{Sum}(\text{Ci}/S(\text{G})(\text{CL})) = 6.8 - 10.2 \)
N chronic (CAT 4) Sum = \( \text{Sum}(\text{Ci}/M(\text{chronic}))^{*}25^{*}0.1^{*}10^{*}\text{CAT}4) = 0.08 - 0.12 \)

**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. Flush eyes immediately with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

**Ingestion**

In the case of ingestion, contact a doctor immediately and take this safety data sheet or the label from the material with you. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down so that no vomit runs back into the mouth and throat. Prevent shock by keeping the injured person warm and calm. Give mouth-to-mouth resuscitation if breathing stops. If unconscious, roll the injured person onto side with the top leg bent at both knee and hip. Call an ambulance.

**Burns**

Rinse with water until the pain stops and continue for 30 minutes.

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

**Neurotoxic effect:** This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin’s natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.

**Sensitivity effects:** This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body’s immune system sees the chemically changed protein as a foreign body and will try to destroy it.

**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 exposed or concerned:

Get immediate 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.
According to EC-Regulation 1907/2006 (REACH)

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
Avoid inhalation of vapours from waste material. Avoid direct contact with spilled substances. Stores that have not ignited must be cooled by water mist. Where possible, remove flammable materials. Make sure there is sufficient ventilation.

6.2. Environmental precautions
No specific requirements.

6.3. Methods and material for containment and cleaning up
Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. 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. Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities
Always store in containers of the same material as the original. Must be stored in a cool and ventilated area, away from possible sources of combustion.

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
methyl methacrylate methyl 2-methylprop-2-enoate methyl 2... (EH40, 2005)
Long-term exposure limit (8-hour TWA reference period): 50 ppm | 208 mg/m3
Short-term exposure limit (15-minute reference period): 100 ppm | 416 mg/m3

DNEL / PNEC

DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 210 mg/m3 - Duration: Long term – Local effects - Workers
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 210 mg/m3 - Duration: Long term – Inhalation - Workers
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 1.5 mg/cm2 - Duration: Dermal - Local effects - Workers
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 13.67 mg/kg - Duration: Local effects - Workers
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 1.5 mg/cm2 - Duration: Dermal - Local effects - General population
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 105 mg/m3 - Duration: Inhalation - Local effects - General population
DNEL (methyl methacrylate methyl 2-methylprop-2-enoate methyl 2-methylpropenoate): 74.3 mg/m3 - Duration: Inhalation - Local effects - General population
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. For general occupational hygiene.

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

Keep damming materials near the workplace. If possible collect spillage during work.

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. When working with this product for a long period of time, use a protective suit.

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
According to EC-Regulation 1907/2006 (REACH)

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>Liquid</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0,96</td>
</tr>
</tbody>
</table>

**Phase changes**
- Melting point (°C)
- Boiling point (°C)

**Data on fire and explosion hazards**
- Flashpoint (°C)
- Ignition (°C)
- Explosion limits (Vol %)
- Oxidizing properties

**Solubility**
- Solubility in water
- n-octanol/water coefficient
- Insoluble

#### 9.2. Other information

<table>
<thead>
<tr>
<th>Solubility in fat</th>
<th>Additional information</th>
<th>N/A</th>
</tr>
</thead>
</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
Avoid static electricity. Do not expose to heat (e.g. sunlight), because it can lead to excess pressure.

#### 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>Species</th>
<th>Test</th>
<th>Route of exposure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No data available.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes skin irritation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May cause an allergic skin reaction.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to EC-Regulation 1907/2006 (REACH)

STOT-single exposure
May cause respiratory irritation.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Long term effects
Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.

Sensitivity effects: This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

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.

SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>12.1. Toxicity</th>
<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>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.2. Persistence and degradability</th>
<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>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.3. Bioaccumulative potential</th>
<th>Substance</th>
<th>Potential bioaccumulation</th>
<th>LogPow</th>
<th>BFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.4. Mobility in soil</th>
<th>No data available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>12.5. Results of PBT and vPvB assessment</th>
<th>No data available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>12.6. Other adverse effects</th>
<th>This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.</th>
</tr>
</thead>
</table>

SECTION 13: Disposal considerations

<table>
<thead>
<tr>
<th>13.1. Waste treatment methods</th>
<th>The product is covered by the regulations on dangerous waste.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>EWC code</td>
</tr>
<tr>
<td>EWC code</td>
<td>08 04 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13.2. Specific labelling</th>
<th>-</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>13.3. Contaminated packing</th>
<th>Packaging which contains leftovers from the product must be disposed of in the same way as the product.</th>
</tr>
</thead>
</table>

SECTION 14: Transport information

This product is covered by the conventions on dangerous goods.

14.1 – 14.4
According to EC-Regulation 1907/2006 (REACH)

ADR/RID

14.1. UN number
1263
14.2. UN proper shipping name
Bitumix AC Hardener
14.3. Transport hazard
class(es)
3
14.4. Packing group
II
Notes
-
Tunnel restriction code
-

IMDG

UN-no.
1263
Proper Shipping Name
PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Class
3
PG*
II
EmS
F-E, S-E
MP**
-
Hazardous constituent
-

IATA/ICAO

UN-no.
-
Proper Shipping Name
-
Class
-
PG*
-

14.5. Environmental hazards
-
14.6. Special precautions for user
-
14.7. Transport in bulk according to Annex II of MARPOL73/78 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
People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. Only for industrial use.

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
According to EC-Regulation 1907/2006 (REACH)

H225 - Highly flammable liquid and vapour.
H300 - Fatal if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.

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)