

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) No 453/2010

Article No.: F21.0021  
Print date: 28.07.2015  
Version: 1-6

Flexonal PU 2688  
Revision date: 02.06.2015  
Issue date: 30.03.2015

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

### 1.1. Product identifiers

Article No. (manufacturer/supplier) F21.0021  
Identification of the substance or mixture Flexonal PU 2688

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

#### Relevant identified uses:

Manufacture of plastics products, including compounding and conversion.

### 1.3. Details of the supplier of the safety data sheet

#### supplier (manufacturer/importer/downstream user/distributor)

Bachmann Kunststoff Technologien GmbH  
Rudolf-Diesel-Straße 2 Telephone: +49 6074 94394  
D- 63322 Rödermark Telefax: +49 6074 98544

#### Dept. responsible for information:

Information contact

E-mail (competent person) [service@bktgermany.com](mailto:service@bktgermany.com)

### 1.4. Emergency telephone number:

Telephone: +49 6074 94394  
Only available during office hours

Emergency telephone number

toxication help, Mainz +49 6131 19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard pictograms



Danger

#### Hazard statements

H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P280 Wear protective gloves and eye/face protection.  
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.

#### contains:

Diethyl ethylphosphonate

#### Supplemental Hazard information (EU)

n.a.

### 2.3. Other hazards

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

#### Product description / chemical characterization

Description mixture of polyols, cross-linkers, catalysts, additives, where applicable colour-paste.

#### Hazardous ingredients

Classification according to Regulation (EC) No. 1272/2008 [CLP]

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EC No. CAS No. INDEX No.	REACH No. Chemical name classification	Wt % Remark
911-815-4 1244733-77-4	01-2119486772-26-XXXX Phosphorous oxychloride, reaction products with propylene oxide Acute Tox. 4 H302	5-10
203-872-2 111-46-6 603-140-00-6 201-111-9 78-38-6	01-2119457857-21-XXXX 2,2' -oxybisethanol Acute Tox. 4 H302  Diethyl ethylphosphonate Acute Tox. 4 H302 / Eye Dam. 1 H318 / Aquatic Chronic 2 H411	5-10  2,5-5
251-459-0 33329-35-0	01-2119985661-27-XXXX N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine Acute Tox. 3 H311 / Acute Tox. 4 H332 / Skin Corr. 1B H314 / Eye Dam. 1 H318 / Aquatic Chronic 3 H412	< 0,5
202-715-5 98-94-2	01-2119533030-60-XXXX N,N-Dimethylcyclohexylamine Flam. Liq. 3 H226 / Acute Tox. 3 H301 / Acute Tox. 3 H311 / Acute Tox. 3 H331 / Skin Corr. 1B H314 / Eye Dam. 1 H318 / Aquatic Chronic 2 H411	< 0,5

#### Additional information

Full text of classification: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice. In case of eye irritation consult an ophthalmologist.

##### In case of inhalation

Remove casualty to fresh air and keep warm and at rest.

##### Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

##### After eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

##### After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

##### Self-protection of the first aider

Avoid contact with skin, eyes and clothes.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

##### Treatment

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Water spray jet, Foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>). spray mist, (water).

##### Extinguishing media which must not be used for safety reasons:

strong water jet.

#### 5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. In case of fire may be liberated: carbon dioxide, carbon monoxide, nitrogen oxides,

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chlorine, Hydrogen chloride (HCl), phosgene, Phosphorus oxides.

## 5.3. Advice for firefighters

Fight fire with normal precautions from a reasonable distance., Wear respiratory protection. Cool closed containers that are near the source of the fire.

### Additional information

Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear suitable gloves.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Clear spills immediately. Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Treat the recovered material as prescribed in the section on waste disposal. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

### 6.3. Methods and material for containment and cleaning up

Suitable material for taking up: Universal binder, Kieselguhr, Sawdust. Clean using cleansing agents. Do not use solvents.

### 6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

Avoid contact with skin, eyes and clothes. When using do not eat, drink or smoke. Always close containers tightly after the removal of product. Take off contaminated clothing and wash before reuse. Wash hands before breaks and after work. Combustible liquid, viscous. Keep away from sources of ignition. Provide adequate ventilation. Collect spillage. Follow the legal protection and safety regulations.

#### Precautions against fire and explosion:

Vapours are heavier than air.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions

The floor should be leak tight, jointless and not absorbent. Store in a well-ventilated place.

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Store carefully closed containers upright to prevent any leaks.

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed.

### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limit values:

2,2' -oxybisethanol

INDEX No. 603-140-00-6 / EC No. 203-872-2 / CAS No. 111-46-6

WEL, TWA: 101 mg/m<sup>3</sup>; 23 ppm

#### Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

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## 8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

### Occupational exposure controls

#### **Provide good ventilation.**

Usually no personal respirative protection necessary.

#### **Hand protection**

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber) Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin: Recommended glove articles DIN EN 374

#### **Eye protection**

Wear closely fitting protective glasses in case of splashes.

#### **Protective clothing**

recommended: Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

#### **Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser. Separate storage of work clothes.

### Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7 of the safety data sheet.

## SECTION 9: Physical and chemical properties

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

<b>Appearance:</b>	viscous
<b>Physical state</b>	liquid
<b>Colour</b>	amber
<b>Odour</b>	characteristic

Safety relevant basis data	Unit	Method	Remark
<b>Flash point:</b>	> 100 °C		
<b>Ignition temperature in °C:</b>	n.b.		
<b>Lower explosion limit:</b>	n.a.		
<b>Upper explosion limit:</b>	n.a.		
<b>Vapour pressure at 20 °C:</b>	28,00 mbar		
<b>Density at 20 °C:</b>	1,12 g/cm <sup>3</sup>		
<b>Water solubility (g/L):</b>	partially miscible		
<b>pH at 20 °C:</b>	-		
<b>Viscosity at 25 °C:</b>	500 mPa·s		

### 9.2. Other information

none.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

not relevant.

### 10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

### 10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4. Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

### 10.5. Incompatible materials

### 10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, Nitrogen oxides (NOx).

## SECTION 11: Toxicological information

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Classification according to Regulation (EC) No. 1272/2008 [CLP]  
No data on preparation itself available.

## 11.1. Information on toxicological effects

### Acute toxicity

Toxicological data are not available.

### skin corrosion/irritation; Serious eye damage/eye irritation

Toxicological data are not available.

### Respiratory or skin sensitisation

Toxicological data are not available.

### Specific target organ toxicity

Toxicological data are not available.

### Aspiration hazard

Toxicological data are not available.

### Practical experience/human evidence

Other observations:

Ingestion may cause nausea, weakness and affect the central nervous system. Splashing may cause eye irritation and reversible damage.

### Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

### Remark

There is no information available on the preparation itself .

## SECTION 12: Ecological information

### overall evaluation

Classification according to Regulation (EC) No. 1272/2008 [CLP]  
There is no information available on the preparation itself .  
Do not allow to enter into surface water or drains.

### 12.1. Toxicity

Toxicological data are not available.

### 12.2. Persistence and degradability

Toxicological data are not available.

### 12.3. Bioaccumulative potential

Toxicological data are not available.

### 12.4. Mobility in soil

Toxicological data are not available.

### 12.5. Results of PBT assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Appropriate disposal / Product

#### Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Carry out a burning of hazardous waste according to official regulations.

#### List of proposed waste codes/waste designations in accordance with EWC

Waste requires special monitoring. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

070208 other still bottoms and reaction residues

#### packaging

#### Recommendation

Completely emptied containers are to be recycled as discarded metal or to be reconditioned. Return IBCs to supplier.

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Vessels not properly emptied are special waste.

## SECTION 14: Transport information

**No dangerous good in sense of this transport regulation.**

### 14.1. UN number

n.a.

### 14.2. UN proper shipping name

### 14.3. Transport hazard class(es)

n.a.

### 14.4. Packing group

n.a.

### 14.5. Environmental hazards

Land transport (ADR/RID) n.a.

Marine pollutant n.a.

### 14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 – 8

#### Additional information

#### Land transport (ADR/RID)

tunnel restriction code

#### Sea transport (IMDG)

EmS-No. n.a.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

#### National regulations

#### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### Other regulations, restrictions and prohibition regulations

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

## SECTION 16: Other information

### Full text of classification in section 3:

Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Corr. 1B / H314	skin corrosion/irritation	Causes severe skin burns and eye damage.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Acute Tox. 3 / H301	Acute toxicity (oral)	Toxic if swallowed.
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.

### Abbreviations and acronyms

n.a. = not applicable

n.b. = not

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determined

## **Additional information**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.