

**BONDAN FL04**

Revision date: 26.02.2021  
Version: 1.003



**1. Identification of the substance/mixture and of the company/undertaking**

1.1 Product identifier

Trade name BONDAN FL04

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

General use Adhesive, Sealant.

1.3 Details of the supplier of the safety data sheet

Drei Bond GmbH · Carl-Zeiss-Ring 13 · 85737 Ismaning  
t +49 (0)89 96 24 27-0 · f +49 (0)89 96 24 27-19  
Department responsible for information: [info@bondan.de](mailto:info@bondan.de) · t +49 89 962427-0

1.4 Emergency telephone number

Drei Bond GmbH	Tel. +49 (0)89 96 24 27-0
Carl-Zeiss-Ring 13	During office hours
85737 Ismaning	Mo – Do 9:00 am – 05:00 pm
	Fr 8:00 am – 3:00 pm

**2 Hazards identification**

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Physical hazards Flam. Liq. 3 - H226

Health hazards STOT SE 3 - H336

Environmental hazards Not classified

## 2.2 Label elements

### Labelling CLP:



Signal word

**Warning**

### Hazard statements

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

### Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P312	Call a POISON CENTER or doctor if you feel unwell.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

### Special labelling

Contains: 2-METHOXY-1-METHYLETHYL ACETATE

### Supplementary precautionary statements

P211	Do not spray on an open flame or other ignition source.
P233	Keep container tightly closed.
P243	Take action to prevent static discharges.

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P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405

Store locked up.

**2.3 Other hazards**

Potentially explosive mixtures may form if adequate ventilation is not provided. Inhaling can lead to irritations of the respiratory tract and mucous membrane. Higher doses may have a narcotic effect.

This substance is not classified as PBT or vPvB according to current EU criteria.

**3 Composition/information on ingredients****3.2 Mixtures**Hazardous ingredients

Ingredient	Designation	Content	Classification
CAS number: 108-65-6 EC number: 203-603-9 REACH registration number: 01-2119475791-29-XXXX	2-METHOXY-1-METHYLETHYL ACETATE	30 - 60 %	Flam. Liq. 3 - H226 STOT SE 3 - H336

The full text for all hazard statements is displayed in Section 16.

**4 First aid measures****4.1 Description of first aid measures**

Inhalation

Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.



Eye contact	Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth immediately and drink plenty of water. Do not induce vomiting without medical assistance. Seek medical attention.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed</b>
Inhalation	Prolonged or repeated exposure may cause the following adverse effects: Nausea, vomiting, headache, drowsiness, fatigue, dizziness.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Prolonged contact may cause redness and/or tearing.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed</b>
Notes for the doctor	Avoid vomiting and stomach flushing because of the risk of aspiration. Treat symptomatically.
<b>5</b>	<b>Fire-fighting measures</b>
<b>5.1</b>	<b>Extinguishing media</b>
Suitable extinguishing media	Extinguishing powder, water spray jet or carbon dioxide. In case of large fires: Alcohol resistant foam or water spray jet.
Extinguishing media which must	Full water jet



## 5.2 Special hazards arising from the substance or mixture

The product is flammable. Heating may generate flammable vapours. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Flammable liquid and vapour. On contact with air, potentially explosive mixtures may develop.

Hazardous vapours may form during fires. In case of fire may be liberated: carbon monoxide, carbon dioxide and unknown hydrocarbons.

## 5.3 Advice for firefighters

### Special protective equipment for firefighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

### Additional information

Hazchem-Code: •3Y

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## 6 Accidental release measures

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

Avoid contact with the substance. Eliminate all ignition sources if safe to do so. Do not breathe vapours. Wear appropriate protective equipment. Keep unprotected people away. Provide adequate ventilation.



## 6.2 Environmental precautions

Do not allow to enter soil, sewage, water bodies, lower level rooms or pits. Danger of explosion! If necessary notify appropriate authorities.

## 6.3 Methods and material for containment and cleaning up

Plug leak if safely possible.

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 section 13). Beware of reignition.

Thoroughly clean surrounding area. In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

### Additional information

Remove all sources of ignition. Use only spark proof tools. Take precautionary measures against static discharges.

Large amounts: Use explosion-proof equipment and non-sparking tools/utensils.

Special danger of slipping by leaking/spilling product.

## 6.4 Reference to other sections

Refer additionally to section 8 and 13.

# 7 Handling and storage

## 7.1 Precautions for safe handling

### Advices on safe handling

Provide adequate ventilation, and local exhaust as needed.

Do not breathe vapours. Avoid contact with skin and eyes. Immediately remove any contaminated clothing, shoes or stockings. Wear appropriate protective equipment.

Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When using do not eat, drink or smoke.



### Precautions against fire and explosion

Keep away from sources of ignition - No smoking. Do not weld. Use only spark proof tools. Take precautionary measures against static discharges. Ground all containers and instruments. Vapours can form explosive mixtures with air. Work on containers and pipelines is permitted only after thorough purging and inerting. Handle empty containers with care. Incineration may cause explosion.

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

#### Requirements for storerooms and containers

Keep container tightly closed and in a well-ventilated place.  
Keep container dry. Keep only in the original container.  
Protect from heat and direct sunlight. Store containers in upright position. Do not drop, drag or bang the container.  
Large amounts: Explosion protection required.

#### Hints on joint storage

Observe TRGS 510.  
Do not store together with combustible or self-igniting materials or any highly flammable solids.  
Keep away from food, drink and animal feedingstuffs.

### 7.3 Specific end use(s)

adhesive, sealant

**8 Exposure controls/personal protection**

**8.1 Control parameters**

Occupational exposure limit values

CAS No.	Designation	Type	Limit value
108-65-6	2-Methoxy-1-methylethyl acetate	Europa: IOELV: STEL	550 mg/m <sup>3</sup> ; 100 ppm (may be absorbed through the skin)
		Europa: IOELV: TWA	275 mg/m <sup>3</sup> ; 50 ppm (may be absorbed through the skin)
		Great Britain: WEL-STEEL	548 mg/m <sup>3</sup> ; 100 ppm (may be absorbed through the skin)
		Great Britain: WEL-TWA	274 mg/m <sup>3</sup> ; 50 ppm (may be absorbed through the skin)
		Ireland: 15 minutes	550 mg/m <sup>3</sup> ; 100 ppm (may be absorbed through the skin)
		Ireland: 8 hours	275 mg/m <sup>3</sup> ; 50 ppm (may be absorbed through the skin)
1317-65-3	Limestone	Great Britain: WEL-TWA	10 mg/m <sup>3</sup> (inhalable fraction)
		Great Britain: WEL-TWA	4 mg/m <sup>3</sup> (respirable fraction)
		Ireland: 8 hours	10 mg/m <sup>3</sup> (inhalable fraction)
		Ireland: 8 hours	4 mg/m <sup>3</sup> (respirable fraction)

**8.2 Exposure controls**

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

Large amounts: Explosion protection required.

Protection equipment







Appropriate engineering controls	Normal (mechanical) room ventilation should be adequate for small volumes. For higher volume activities, or if needed for worker comfort, local mechanical exhaust should be provided.
Eye/face protection	Use approved safety goggles or face shield. Personal eye protection should conform to EN 166.
Hand protection	Wear protective gloves according to EN 374. Glove material: butyl caoutchouc (butyl rubber)-Layer thickness: 0,7 mm Breakthrough time: > 480 min Unsuitable materials: natural rubber, nitrile rubber Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Other skin and body protection	Flame retardant, antistatic and chemical resistant protective clothing.
Hygiene measures	Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Avoid contact with skin, eyes, and clothing. Take off immediately all contaminated clothing. Do not breathe vapour/aerosol. Have eye wash bottle or eye rinse ready at work place. When using do not eat, drink or smoke. Wash hands before breaks and after work. Use of good industrial hygiene practices is required.
Respiratory protection	Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter, Type A (EN14387). Have a breathing apparatus that is not dependent on the circulating air ready for emergencies.



## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	viscous liquid
Colour	grey
Odour	ester-like
Odour threshold	not available
pH	not relevant
Melting point	approx. -60 °C
Initial boiling point and range	approx. 145 °C
Flash point	30 °C
Evaporation rate	not available
Upper/lower flammability or explosive limits	Flammable liquid and vapour.
Vapour pressure	approx. 3.5 hPa
Vapour density	not available
Relative density	approx. 1.2
Solubility(ies)	Insoluble in water.
Auto-ignition temperature	approx. 320 °C
Decomposition Temperature	not available
Viscosity, kinematic	≥ 5000 m <sup>2</sup> /s
Explosive properties	On contact with air, potentially explosive mixtures may develop.
Oxidising properties	not available

### 9.2 Other information

Solvent separation test 0 %

## 10 Stability and reactivity

### 10.1 Reactivity

Flammable liquid and vapour.  
On contact with air, potentially explosive mixtures may develop.

### 10.2 Chemical stability

Stable under recommended storage conditions.



### 10.3 Possibility of hazardous reactions

Heating will lead to pressure increase: Danger of bursting and explosion.  
Potentially explosive mixtures may form if adequate ventilation is not provided.

### 10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.  
Protect from direct sunlight.  
Avoid formation of aerosols/vapours.

### 10.5 Incompatible materials

oxidising agents, alkalis, strong acids  
Attacks many plastics and rubbers.

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Toxic gases/vapours, sulphur oxides, hydrogen chloride,  
Carbon monoxide and carbon dioxide

Thermal decomposition                      No data available

## 11 Toxicological information

### 11.1 Information on toxicological effects

#### Toxicological effects

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### Aspiration hazard

Aspiration hazard

Aspiration hazard if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.



Inhalation	In high concentrations, vapours may irritate throat and respiratory system and cause coughing. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache, fatigue, dizziness, nausea and vomiting
Skin contact	non-irritating to the skin
Eye contact	May cause temporary eye irritation.

Toxicological information on ingredients

**2-METHOXY-1-METHYLETHYL ACETATE**

Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 5,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 5,000.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation 10.6

(LC<sub>50</sub> dust/mist mg/l)

Species Rat

**12 Ecological information**

12.1 Toxicity

The product is not expected to be hazardous to the environment.

12.1 Toxicity

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.



Ecological information on ingredients

**2-METHOXY-1-METHYLETHYL ACETATE**

Acute aquatic toxicity

Acute toxicity - fish

LC<sub>50</sub>, 96 hours: 100-180 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity – aquatic invertebrates

LC<sub>50</sub>, 48 hours: 408-500 mg/l, Daphnia magna

Acute toxicity – aquatic Plants

NOEC, 96 hours: >= 1000 mg/l, Selenastrum capricornutum  
EC<sub>50</sub>, 96 hours: 1000 mg/l, Selenastrum capricornutum

Chronic aquatic toxicity

Chronic toxicity - fish early life stage

NOEC, 14 days: 47.5 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity – aquatic Invertebrates

NOEC, 21 days: >= 100 mg/l, Daphnia magna

12.2. Persistence and degradability

There is no data available.

12.3 Bioaccumulative potential

There is no data available on bioaccumulation.

12.4 Mobility in soil

The product contains organic solvents which will evaporate easily from all surfaces.

12.5 Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.



12.6 Other adverse effects

General information Do not allow to enter into ground-water, surface water or drains.

**13 Disposal considerations**

13.1 Waste treatment methods

General information Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

**Product**

Waste key number 08 04 09\* = Waste adhesives and sealants containing organic solvents or other dangerous substances  
MFSU = manufacture, formulation, supply and use  
\* = Evidence for disposal must be provided.

Recommendation Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Containers should be thoroughly emptied before disposal because of the risk of an explosion.

**Contaminated packaging**

Recommendation Handle empty containers with care. Incineration may cause explosion. Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled. Do not remove label until container is thoroughly cleaned.

**14 Transport information**

14.1 UN number

ADR/RID, IMDG, IATA-DGR UN 1133

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14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR                      UN 1133, ADHESIVES

14.3 Transport hazard class(es)

ADR/RID    Class 3, Code: F1  
IMDG    Class 3, Subrisk -  
IATA-DGR    Class 3



14.4 Packing group

ADR/RID, IMDG, IATA-DGR                      III

14.5 Environmental hazards

Marine pollutant:                                      No

14.6 Special precautions for user

**Land transport (ADR/RID):**

Warning board:                                      ADR/RID: Kemmler-number 30, UN number UN 1133  
Hazard label:    3  
Remarks:    ADR/RID: If this product is transported in containers of a maximum capacity of 450 l according to ADR/RID No. 2.2.3.1.5., it is not referred to as a dangerous good in terms of transport regulations.

**Sea transport (IMDG):**

EmS:    F-E, S-D  
Segregation group:                                      none  
Remarks:    Transport in containers with max. 30 litres contents are not subject to the regulations of IMDG according to No 2.3.2.5.

**Air transport (IATA):**

Hazard label:    Flamm. liquid



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

not applicable

**15 Regulatory information**

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

National regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

National regulations – Great Britain

Hazchem-Code •3Y

EU legislation Regulation (EC)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Guidance

Workplace Exposure Limits EH40.

CHIP for everyone HSG228.

Approved Classification and Labelling Guide (Sixth edition) L131.

Safety Data Sheets for Substances and Preparations.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

**16 Other information**

Revision date: 26.02.2021

Supersedes date: 18.12.2020





**Wording of the hazard statements under paragraph 2 and 3:**

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

**Department issuing data sheet:**

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

*(The data of dangerous ingredients were taken from the last valid safety data sheet of the respective pre-supplier.)*