



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

### **1.1 Product identifier**

Trade name BONDAN Cleaner

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

General use Cleaning agent

### **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	Aerosol 1 - H222; H229
Health hazards	STOT SE 3 - H336 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 3 - H412

## 2.2 Label elements

### Labelling CLP:



Signal word

**Danger**

### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

### 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing vapours or spray.
P271	Use only outdoors or in a well-ventilated area.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling

Contains:

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

Labelling for contents according to regulation (EC) No 648/2004, annex VII:

Contains: ≥ 30% aliphatic hydrocarbons

Supplementary precautionary statements

P301+P330+P331+P310

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
Immediately call a POISON CENTER or doctor.

P312

Call a POISON CENTER/doctor if you feel unwell.

P403+P233

Store in a well ventilated place. Keep container tightly closed.

P405

Store locked up.

## 2.3 Other hazards

Exposure to temperatures exceeding 50 C will increase pressure: resulting in danger of bursting or explosion.

Potentially explosive mixtures may form if adequate ventilation is not provided.

Higher doses may lead to a narcotic effect.

Results of PBT and vPvB assessment: No data available

## 3 Composition/information on ingredients

### 3.2 Mixtures

Hazardous ingredients

Ingredient	Designation	Content	Classification
CAS number: 109-87-5 EC number: 203-714-2 REACH registration number: 01-2119664781-31-XXXX	Dimethoxymethane	50 - 55 %	Flam. Liq. 2 - H225
EC number: 926-605-8 REACH registration number: 01-2119486291-36-XXXX	Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5% n-hexane	15 - 20 %	Flam. Liq. 2 - H225 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411 (EUH066)



CAS number: 106-97-8 EC number: 203-448-7 REACH registration number: 01-2119474691-32-XXXX	n-Butane, pure	15 - 25 %	Flam. Gas 1 - H220 Press. Gas (Comp.) - H280
CAS number: 74-98-6 EC number: 200-827-9 REACH registration number: 01-2119486944-21-XXXX	Propane	5 - 15 %	Flam. Gas 1 - H220 Press. Gas (Comp.) - H280

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

Labelling for contents according to regulation (EC) No 648/2004, annex VII:

Contains:  $\geq$  30% aliphatic hydrocarbons

## 4 First aid measures

### 4.1 Description of first aid measures

General information	IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection!
After inhalation	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Make sure he/she is warm and comfortable. Seek medical treatment in case of troubles. If victim is at risk of losing consciousness, position and transport on their side.
After swallowing	Do not induce vomiting. Immediately get medical attention. Caution if victim vomits: Risk of aspiration! In case of vomiting, lay at least head on side.
After skin contact	Wash with generous amount of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.
After eye contact	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.



4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. May cause drowsiness or dizziness.

Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Higher doses may lead to a narcotic effect.

When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

**5 Fire-fighting measures**

5.1 Extinguishing media

Suitable extinguishing media      Foam, extinguishing powder, carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media      Full water jet.

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container: May burst if heated. formation of explosive gas mixtures with air. On heating or in case of fire toxic gases may form.

In case of fire may be liberated: carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Special protective equipment for firefighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing. Do not breathe fumes.

Additional information

Hazchem-Code: -

Heating will lead to pressure increase: Danger of bursting and explosion.

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

## **6 Accidental release measures**

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

Eliminate all ignition sources if safe to do so.  
Provide adequate ventilation.  
Wear appropriate protective equipment.  
Do not breathe spray. Avoid contact with the substance.  
Keep unprotected people away.  
Cordon off downwind area at risk and warn inhabitants.

### **6.2 Environmental precautions**

Do not allow to penetrate into soil, waterbodies or drains. In case of release, notify competent authorities.

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

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).  
Thoroughly clean surrounding area.  
In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Never return spills in original containers for re-use.  
  
Additional information: Use explosion-proof equipment and non-sparking tools/utensils.

### **6.4 Reference to other sections**

Refer additionally to section 8 and 13.



## **7 Handling and storage**

### **7.1 Precautions for safe handling**

#### Advice on safe handling

Provide adequate ventilation, and local exhaust as needed.

Wear appropriate protective equipment. Do not breathe spray. Take off immediately all contaminated clothing and wash it before reuse. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. Work place should be equipped with a shower and an eye rinsing apparatus.

#### Precautions against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Do not open with force or incinerate, even when empty.

Use only non-sparking tools.

Take precautionary measures against static discharges.

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

Requirements for storage rooms and containers

Keep container tightly closed and in a well-ventilated place.

Keep container dry. Keep only in the original container.

Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F.

Store containers in upright position.

#### Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

### **7.3 Specific end use(s)**

There is no information available.



## 8 Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

CAS-Nr.	Bezeichnung	Typ	Grenzwert
109-87-5	Dimethoxymethane	Great Britain: WEL-STEL Great Britain: WEL-TWA Ireland: 8 hours	3950 mg/m <sup>3</sup> ; 1250 ppm 3160 mg/m <sup>3</sup> ; 1000 ppm 3100 mg/m <sup>3</sup> ; 1000 ppm
-	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	Great Britain: WEL-TWA	1800 mg/m <sup>3</sup> (C5-C6 alkenes) 700 mg/m <sup>3</sup> (C6-C8 Aliphaten)
106-97-8	n-Butane, pure	Great Britain: WEL-STEL Great Britain: WEL-TWA Ireland: 8 hours	1810 mg/m <sup>3</sup> ; 750 ppm 1450 mg/m <sup>3</sup> ; 600 ppm 1000 ppm
74-98-6	Propane	Ireland: 8 hours	1000 ppm

#### DNEL/DMEL values

##### **Dimethoxymethane**

DNEL workers, inhalative, systemic, long-term: 126.6 mg/m<sup>3</sup>

DNEL workers, dermal, systemic, long-term: 17.9 mg/kg bw/d

DNEL consumer, inhalative, systemic, long-term: 31.5 mg/m<sup>3</sup>

DNEL consumer, dermal, systemic, long-term: 18.1 mg/kg bw/d

DNEL consumer, oral, systemic, long-term: 18.1 mg/kg bw/d

##### **Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane**

DNEL workers, inhalative, systemic, long-term: 5,306 mg/m<sup>3</sup>

DNEL workers, dermal, systemic, long-term: 13,964 mg/kg bw/d

DNEL consumer, inhalative, systemic, long-term: 1,131 mg/kg bw/d

DNEL consumer, dermal, systemic, long-term: 1,377 mg/kg bw/d

DNEL consumer, oral, systemic, long-term: 1,301 mg/kg bw/d





PNEC values

**Dimethoxymethane**

PNEC water (freshwater): 14.577 mg/L  
PNEC water (marine water): 1.477 mg/L  
PNEC sewage treatment plant: 10 g/L  
PNEC sediment (freshwater): 13.135 mg/kg dw  
PNEC sediment (marine water): 1.313 mg/kg dw  
PNEC soil: 4.654 mg/kg dw

**8.2 Exposure controls**

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

Personal protection equipment

Occupational exposure controls

Respiratory protection	In case of inadequate ventilation wear respiratory protection. Respiratory protection must be worn whenever the WEL levels have been exceeded. Combination filtering device (EN 14387) A-P2
Hand protection	Protective gloves according to EN 374. Glove material: Nitrile rubber, Layer thickness: 0.4 mm, Breakthrough time: 60 min Butyl caoutchouc (butyl rubber), Layer thickness: 0.3 mm, Breakthrough time: 10 min Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection	Tightly sealed goggles according to EN 166.
Body protection	Wear anti-static footwear and clothing.
General protection and hygiene measures	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or



other ignition source. Use only non-sparking tools. Do not breathe spray. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Work place should be equipped with a shower and an eye rinsing apparatus.

Environmental exposure  
controls

Do not allow to enter into ground-water, surface water or drains.  
Refer to "6.2 Environmental precautions".

## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	Physical state at 20 C and 101.3 kPa: liquid
Form:	Aerosol
Colour	colourless
Odour	like: ether
Odour threshold	no data available
pH-Value	not applicable
Melting point/freezing point	not applicable
Initial boiling point and range	≤ -20 °C
Flash point/flash point range	≤ -20 °C
Evaporation rate:	no data available
Flammability	Extremely flammable aerosol.
Explosion limits	LEL (Lower Explosion Limit): 0.60 Vol-% UEL (Upper Explosive Limit): 24.70 Vol-%
Vapour pressure	no data available
Vapour density	no data available
Density	at 20 C: 0.71 g/mL
Water solubility	practically insoluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity, kinematic	no data available
Explosive properties	In use, may form flammable/explosive vapour-air mixture.
Oxidizing characteristics	no data available



9.2 Other information

Ignition temperature > 200 °C

**10 Stability and reactivity**

10.1 Reactivity

Extremely flammable aerosol.  
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Pressurised container: May burst if heated.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F.

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

No hazardous decomposition products known.

Thermal decomposition no data available



## **11 Toxicological information**

### **11.1 Information on toxicological effects**

#### Toxicological effects

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

Skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.  
Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): STOT SE 3; H336 = May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.

Toxicological information on ingredients**Dimethoxymethane**Acute toxicity - oralAcute toxicity oral (LD<sub>50</sub> mg/kg) 6,423

Species Rat

Acute toxicity - dermalAcute toxicity dermal (LD<sub>50</sub> mg/kg) > 5,000

Species Rabbit

**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane**Acute toxicity - oralAcute toxicity oral (LD<sub>50</sub> mg/kg) > 5,000 (OECD 401)

Species Rat

Acute toxicity - dermalAcute toxicity dermal (LD<sub>50</sub> mg/kg) > 2,000 (OECD 402)

Species Rat

Acute toxicity - inhalationAcute toxicity inhalation, vapour 259,354 (OECD 403, read across)  
(LC<sub>50</sub> mg/l/4h)

Species Rat

**12 Ecological information****12.1 Toxicity**Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

Ecological information on ingredients**Dimethoxymethane**Acute aquatic toxicity

Acute toxicity - fish

LC<sub>50</sub>, 96 hours: > 1,000 mg/l, Danio rerio (zebrafish), (OECD 203)

NOEC, 30 days: 450.281 mg/l

Acute toxicity – aquatic  
InvertebratesEC<sub>50</sub>, 48 hours: > 1,200 mg/l, Daphnia magna, (OECD 202)  
NOEC, 30 days: 150.5 mg/l, Daphnia magnaAcute toxicity – aquatic  
plantsErC<sub>50</sub>, 96 hours: 874.12 mg/l**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane**Acute aquatic toxicity

Acute toxicity - fish

LC<sub>50</sub>, 96 hours: 12 mg/l, Oncorhynchus mykiss (rainbow trout), (OECD 203)

NOEC, 28 days: 2.187 mg/l, Oncorhynchus mykiss (rainbow trout)

Acute toxicity – aquatic  
InvertebratesEC<sub>50</sub>, 48 hours: 3 mg/l, Daphnia magna, (OECD 202)  
NOEC, 21 days: 3.818 mg/l, Daphnia magnaAcute toxicity – aquatic  
plantsErC<sub>50</sub>, 72 hours: 7.276 mg/l, Selenastrum capricornutum**12.2. Persistence and degradability**

There is no information available.

Ecological information on ingredients**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane**

Biodegradation

98 %, 28 days: The substance is readily biodegradable (according to OECD criteria).



12.3 Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients

**Dimethoxymethane**

Partition coefficient                      log Pow: 0

**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane**

Partition coefficient                      log Pow: 3.6

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information                      Do not allow to penetrate into soil, waterbodies or drains.

**13 Disposal considerations**

13.1 Waste treatment methods

Product

Waste key number                      16 05 04\* = Gases in pressure containers (including halons) containing hazardous substances  
\* = Evidence for disposal must be provided.

Recommendation                      Special waste. Do not pierce or burn, even after use.  
Dispose of waste according to applicable legislation.

Contaminated packaging

## Recommendation

Empty carefully and completely, if possible.  
Dispose of waste according to applicable legislation.  
Handle empty containers with care. Incineration may cause explosion.

**14 Transport information****14.1 UN number**

ADR/RID, IMDG, IATA-DGR

UN 1950

**14.2 UN proper shipping name**ADR/RID, IMDG  
IATA-DGRUN 1950, AEROSOLS  
UN 1950, AEROSOLS, FLAMMABLE**14.3 Transport hazard class(es)**ADR/RID  
IMDG  
IATA-DGRClass 2, Code: 5F  
Class 2.1, Subrisk -  
Class 2.1**14.4 Packing group**ADR/RID, IATA-DGR  
IMDGnot applicable  
-**14.5 Environmental hazards**

Marine pollutant      no

**14.6 Special precautions for user**Land transport (ADR/RID)

Warning board: RID: Kemmler-number 23, UN number UN 1950

Hazard label: 2.1

Sea transport (IMDG)

EmS: F-D, S-U

Segregation group: none



Air transport (IATA)

Hazard label: Flamm. gas

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

No data available

**15 Regulatory information**

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

National regulations - Great Britain

Hazchem-Code: -  
No data available

National regulations – EC member states

Volatile organic compounds (VOC)  
100 % by weight = 710 g/L

Labelling of packaging with <= 125mL content



Signal word: **Danger**

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H412	Harmful to aquatic life with long lasting effects.

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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3; 40; 75

**15.2 Chemical Safety Assessment**

For this substance a chemical safety assessment is not required.

**16 Other information**

Revision date: 23.08.2021

Supersedes date: 15.02.2021

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

**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.)*