

# Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 02.10.2023

Version: 4.0

Product: **SOLVENON® DPnB**

(ID no. 30108454/SDS\_GEN\_IL/EN)

Date of print 30.06.2024

## 1. Identification

### Product identifier

## SOLVENON® DPnB

Chemical name: 1-(2-Butoxy-1-methylethoxy)propan-2-ol

CAS Number: 29911-28-2

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

Relevant identified uses: Chemical

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Petrochemicals

Telephone: +49 621 60-42151

E-mail address: sds-petrochemicals@basf.com

### Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## 2. Hazards Identification

### Classification of the substance or mixture

According to UN GHS criteria

Acute Tox. 5 (oral)

For the classifications not written out in full in this section the full text can be found in section 16.

## Label elements

### Globally Harmonized System (GHS)

Signal Word:

Warning

Hazard Statement:

H303 May be harmful if swallowed.

Precautionary Statements (Response):

P312 Call a POISON CENTER or physician if you feel unwell.

## Other hazards

### According to UN GHS criteria

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

See section 12 - Results of PBT and vPvB assessment.

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## 3. Composition/Information on Ingredients

### Substances

#### Chemical nature

1-(2-Butoxy-1-methylethoxy)propan-2-ol

CAS Number: 29911-28-2

EC-Number: 249-951-5

For the classifications not written out in full in this section the full text can be found in section 16.

### Mixtures

Not applicable

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## 4. First-Aid Measures

### Description of first aid measures

| Remove contaminated clothing.

If inhaled:

| Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

### **Most important symptoms and effects, both acute and delayed**

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

### **Indication of any immediate medical attention and special treatment needed**

Treatment: Symptomatic treatment (decontamination, vital functions).

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## **5. Fire-Fighting Measures**

### **Extinguishing media**

Suitable extinguishing media:

dry powder, water spray, carbon dioxide, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Use extinguishing measures to suit surroundings.

### **Special hazards arising from the substance or mixture**

The product is combustible. Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

### **Advice for fire-fighters**

Special protective equipment:

Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:

Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

### Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

### Environmental precautions

Discharge into the environment must be avoided.

### Methods and material for containment and cleaning up

Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

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## 7. Handling and Storage

### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

No special precautions necessary. Substance/product is non-flammable.

### Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## 8. Exposure Controls/Personal Protection

### Control parameters

#### Components with occupational exposure limits

No substance specific occupational exposure limits known.

### Exposure controls

#### Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

butyl rubber (butyl) - 0.7 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

#### General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	ether-like	
Odour threshold:	not determined	
pH value:	(20 °C) neutral	
Melting point:	< -75 °C	
Boiling point:	Literature data. 230,2 °C	(measured)
Flash point:	(1.016,18 hPa) 100,4 °C	(closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	hardly combustible	(derived from flash point)
Lower explosion limit:	1 %(V) (92,8 °C)	(air)
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	195 °C	(DIN 51794)
Vapour pressure:	4 Pa (20 °C) Extrapolated value	(measured)
Density:	0,91 g/cm <sup>3</sup> (22,8 °C)	(DIN 51757)
Relative density:	0,91 (22,8 °C)	(DIN 51757)

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Relative vapour density (air):	6,56 (20 °C) Heavier than air.	(calculated)
Solubility in water:	40 g/l (25 °C)	
Partitioning coefficient n-octanol/water (log Kow):	1,523 (25 °C; pH value: 7)	(calculated)
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	4,35 mPa.s (25,5 °C)	(DIN 51562)
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

### Other information

Self heating ability:	It is not a substance capable of spontaneous heating.	
pKA:	The substance does not dissociate.	
Adsorption/water - soil:	KOC: 10; log KOC: 1	(calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Grain size distribution:	Test substance	The substance / product is marketed or used in a non solid or granular form.
Molar mass:	190,28 g/mol	

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:	No corrosive effect on metal.	
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

**Conditions to avoid**

Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static discharge.

**Incompatible materials**

Substances to avoid:

strong oxidizing agents, strong acids

**Hazardous decomposition products**

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

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**11. Toxicological Information****Information on toxicological effects**Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. Of low toxicity after single ingestion.

Experimental/calculated data:

LD50 rat (oral): 3.160 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 5,4 mg/l 4 h (OECD Guideline 403)

No mortality was observed. An aerosol was tested.

LD50 rat (dermal): > 2.000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

#### Carcinogenicity

Assessment of carcinogenicity:

In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Reproductive toxicity

Assessment of reproduction toxicity:

Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.

#### Developmental toxicity

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. Prolonged and repeated exposure may cause effects on the liver.

#### Aspiration hazard

No aspiration hazard expected.

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## 12. Ecological Information

### Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) 841 mg/l, *Poecilia* sp. (OECD Guideline 203, static)

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)



No observed effect concentration (48 h) > 1.000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (96 h) 519 mg/l (growth rate), algae (calculated)

The product has not been tested. The statement has been derived from the structure of the product.

Microorganisms/Effect on activated sludge:

EC20 (0,5 h) > 1.000 mg/l, activated sludge, domestic (OECD Guideline 209, aerobic)

Nominal concentration.

Chronic toxicity to fish:

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates:

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

### **Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

Readily biodegradable (according to OECD criteria).

Elimination information:

90 - 100 % DOC reduction (21 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

91 % DOC reduction (28 d) (OECD 301E; 84/449/EWG, C.3) (aerobic, activated sludge, domestic, non-adapted)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

### **Bioaccumulative potential**

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

### **Mobility in soil**

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

### **Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

### **Other adverse effects**

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The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

### Additional information

Adsorbable organically-bound halogen (AOX):  
This product contains no organically-bound halogen.

## 13. Disposal Considerations

### Waste treatment methods

Dispose of in accordance with national, state and local regulations.

Contaminated packaging:  
Disposal must be made according to official regulations.

## 14. Transport Information

### Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable

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Environmental hazards: Not applicable  
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

**Sea transport**

IMDG

Not classified as a dangerous good under transport regulations  
UN number or ID number: Not applicable  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

**Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations  
UN number or ID number: Not applicable  
UN proper shipping name: Not applicable  
Transport hazard class(es): Not applicable  
Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for user: None known

**Maritime transport in bulk according to IMO instruments**

Maritime transport in bulk is not intended.

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## 15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

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## 16. Other Information

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

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Acute Tox.

Acute toxicity

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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