
* **Solvent DPnB (Dipropylene- glycolmonobutylether)** Date revised: 05.05.2020
1000451 Version: 9 / WORLD Master No. M-102 Print date: 08.12.2020

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

1.1. Product identifier

Trade name

Solvent DPnB (Dipropylene- glycolmonobutylether)
REACH-Registration no. 01-2119451543-42-XXXX

Use of the substance/mixture

Solvents

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

Identified Uses

At the moment we have no information available for the identified uses. In the presence of these data will be included in the safety data sheet.

Uses advised against

There are no uses have been identified, advised against.

1.3. Details of the supplier of the safety data sheet

Address

Vivochem B.V.
Darwin 5
7609 RL Almelo
Telephone no. +31 546 577774
Fax no. +31 546 577701
Information provided Dept. Quality
by / telephone
E-mail address kwaliteit@vivochem.nl

1.4. Emergency telephone number

National poisoning information center (NVIC) +31 (0) 30 274 8888
Only for the purpose of informing medical personnel in cases of accidental intoxications.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Further supplemental information

Restricted to professional users
The product does not require a hazard warning label in accordance with EC directives/ GefStoffV (German regulations on dangerous substances).

2.3. Other hazards

No special hazards have to be mentioned.

PBT and vPvB

You find the results of PBT and vPvB assessment in section 12.

SECTION 3: Composition/information on ingredients

3.1. Substances

Further ingredients

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

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CAS No.	29911-28-2		
EINECS no.	249-951-5		
Registration no.	01-2119451543-42-XXXX		
Concentration		>=	98,5 %

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

If the patient is likely to become unconscious, place and transport in stable sideways position. Remove soiled or soaked clothing immediately, do not allow to dry.

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). In case of irritation consult an oculist.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Take medical treatment.

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

No information available.

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

Treat symptomatically

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, Dry chemical extinguisher, Water spray jet, Water mist, Alcohol-resistant foam

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Formation of explosive gas/air mixtures. In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂); Violent vapour formation under influence of water. If a fire breaks out nearby, pressure build-up and danger of bursting are possible.

5.3. Advice for firefighters

Use self-contained breathing apparatus.

Cool endangered containers with water spray jet. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective clothing. Keep unprotected persons away. Ensure adequate ventilation. Keep away sources of ignition.

6.2. Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). When picked up, treat material as prescribed under Section 13 "Disposal". Prevent spread over a wide area (by containment with sand or earth). Pump off large amounts.

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6.4. Reference to other sections

Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Observe the usual precautions for handling chemicals. Provide good ventilation of working area (local exhaust ventilation if necessary).

General protective and hygiene measures

Take off immediately all contaminated clothing. Avoid contact with skin and eyes. Keep separated from food-stuffs and feed-stocks. At work do not eat, drink, smoke or take drugs. Wash hands before breaks and after work. Do not inhale gases/vapours/aerosols. Hold eye wash fountain available.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Contact with hot fibrous insulation may reduce the auto-ignition temperature. Ignitable mixtures can form in the empty container.

7.2. Conditions for safe storage, including any incompatibilities

Storage time: 24 months

Use stainless steel containers. Do not use aluminium containers. Do not use containers, lines etc. made of copper or copper alloys. Do not use zinc containers.

storage category TRGS 510 10 Combustible liquid

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limit values**

Remarks There is not known any national exposure limit.

Derived No/Minimal Effect Levels (DNEL/DMEL)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Conditions	Consumer	Long term	dermal	Systemic effects
Concentration	80	mg/kg		
Conditions	Consumer	Long term	inhalative	Systemic effects
Concentration	56	mg/m ³		
Conditions	Consumer	Long term	oral	Systemic effects
Concentration	16	mg/kg		
Conditions	Worker	Long term	dermal	Systemic effects
Concentration	134	mg/kg		
Conditions	Worker	Long term	inhalative	Systemic effects
Concentration	189	mg/m ³		

Predicted No Effect Concentration (PNEC)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Type	Freshwater		
Concentration	0,519		mg/l

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Type	Saltwater	
Concentration	0,0519	mg/l
Type	periodic release	
Concentration	5,19	mg/l
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l
Type	Freshwater sediment	
Concentration	2,96	mg/kg TG
Type	Marine sediment	
Concentration	0,296	mg/kg TG
Type	Soil	
Concentration	0,287	mg/kg TG

8.2. Exposure controls**Respiratory protection in accordance with DIN EN 136 / DIN EN 140 / DIN EN 143 / DIN EN 149**

In case of insufficient ventilation, wear suitable respiratory equipment. Short term: filter apparatus, Filter A

Hand protection in accordance with DIN EN 374

Appropriate Material	Natural Latex
Material thickness	>= 1 mm
Breakthrough time	>= 120 min
Appropriate Material	Butyl rubber
Material thickness	>= 0,5 mm
Breakthrough time	>= 120 min

Eye protection in accordance with DIN EN 166

Tightly fitting safety glasses

Body protection in accordance with DIN EN 465

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Form	liquid
Colour	colourless

Odour

ether-like

Odour threshold

Remarks No data available

pH value

Remarks No data available

Melting point/freezing point

Value	< -75	°C
Source	Literature value	

Initial boiling point and boiling range

Value	230	°C
Source	Literature value	

Flash point

Value	100	°C
Method	closed cup	

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Evaporation rate

Remarks No data available

Flammability (solid, gas)

No data available

Upper/lower flammability or explosive limits

Lower explosion limit 0,6 %(V)

Upper explosion limit 20,4 %(V)

Source Literature value

Vapour pressure

Value 4 Pa

Temperature 20 °C

Source Literature value

Vapour density

Value 6,6

Relative densityValue 0,915 g/cm³

Temperature 20 °C

Source Literature value

Solubility(ies)

Medium Water

Value 45 g/l

Temperature 25 °C

Partition coefficient: n-octanol/water

log Pow 1,523

The possibility of bioaccumulation is slight.

Auto-ignition temperature

Value 194 °C

Source Literature value

Decomposition temperature

Remarks No decomposition if used as prescribed.

Viscosity**kinematic**Value 4,9 mm²/s

Temperature 25 °C

Source Literature value

Explosive properties

Remarks Vapours can form an explosive mixture with air.

Oxidising properties

evaluation not oxidizing

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Under normal conditions of storage and use, hazardous reactions will not occur.

10.2. Chemical stability

Under normal conditions of storage and use is the product stable.

10.3. Possibility of hazardous reactions

Polymerization does not occur.

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10.4. Conditions to avoid

To avoid thermal decomposition do not overheat. Prevent drying-out. Because of the high vapour pressure, containers are liable to burst if temperature rises. Protect from heat and direct sunlight.

10.5. Incompatible materials

Reactions with strong acids. Reactions with strong oxidising agents. Reactions with strong alkalies.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide, Ketones, Aldehydes, organic acids

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

By appropriate use of the product no health damage is known.

Acute oral toxicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Species	rat		
LD50		3700	mg/kg

Acute dermal toxicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Species	rat		
LD50	>	2000	mg/kg

Acute inhalative toxicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Species	rat		
LC 0	>	2,04	mg/l
Aerosol			

Skin corrosion/irritation

evaluation	slight irritant effect - does not require labelling
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Serious eye damage/irritation

evaluation	slight irritant effect - does not require labelling
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Sensitization (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

No sensitizing effect known.

Mutagenicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

No mutagenicity according to various in vitro tests.

Carcinogenicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

Indications of possible carcinogenic effects are not available.

Reproduction toxicity (Components)**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

No indications of toxic effects were observed in reproduction studies in animals.

Specific Target Organ Toxicity (STOT)**Repeated exposure**

Caused kidney effects in male rats which are not considered relevant to humans.

Route of exposure	oral
Organs:	Kidneys
Species	rat (male)

Aspiration hazard

No information available.

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SECTION 12: Ecological information

12.1. Toxicity

There is no data available on the product apart from the information given in this subsection.

Fish toxicity (Components)

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

Species	guppy (Poecilia reticulata)		
LC50	841		mg/l
Duration of exposure	96	h	
Remarks	Static system		

Daphnia toxicity (Components)

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

Species	Daphnia magna		
LC50	> 1000		mg/l
Duration of exposure	48	h	

12.2. Persistence and degradability

Biodegradability (Components)

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

Value	91		%
Duration of test	28	d	
Method	OECD 301 E		
Value	95		%
Duration of test	21	d	
Method	OECD TG 301 A		
Value	96		%
Duration of test	28	d	
evaluation	Readily biodegradable (according to OECD criteria)		
Method	OECD 302 B		

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow	1,523
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The possibility of bioaccumulation is slight.

Bioconcentration factor (BCF)

BCF	< 100
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12.4. Mobility in soil

Highly mobile in soils

12.5. Results of PBT and vPvB assessment

Evaluation of persistence and bioaccumulation potential

The Substance do not meets PBT-criterions. The Substance do not meets vPvB-criterions.

12.6. Other adverse effects

Behaviour in environment compartments

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

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Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

SECTION 14: Transport information**Land transport ADR/RID**

Non-dangerous goods

14.1. UN number -

14.2. UN proper shipping name -

14.3. Transport hazard class(es) -

14.4. Packing group -

14.5. Environmental hazards -

14.6. Special precautions for user No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code No information available.

Marine transport IMDG/GGVSee

The product does not constitute a hazardous substance in sea transport.

14.1. UN number -

14.2. UN proper shipping name -

14.3. Transport hazard class(es) -

14.4. Packing group -

Marine Pollutant no

14.5. Environmental hazards -

14.6. Special precautions for user No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code No information available.

Air transport ICAO/IATA

The product does not constitute a hazardous substance in air transport.

14.1. UN number -

14.2. UN proper shipping name -

14.3. Transport hazard class(es) -

14.4. Packing group -

14.6. Special precautions for user No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code No information available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****SVHC**

The product does not contain substances of very high concern (SVHC).

Registration status**1-(2-Butoxy-1-methylethoxy)propane-2-ol**

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IECSC (China)	listed or meets the requirements
TSCA (USA)	listed or meets the requirements
NZIOOC(New Zealand)	listed or meets the requirements
ENCS (Japan)	listed or meets the requirements
ECL/TCCL (Korea)	listed or meets the requirements
PICCS (Philippines)	listed or meets the requirements
DSL (Canada)	listed or meets the requirements
AICS (Australian Inventory of Chemical Substances)	listed or meets the requirements
TCSI(Taiwan chemical substance inventory)	listed or meets the requirements
NCI (Vietnam)	listed or meets the requirements

TA-Luft

Section 5.2.5: Organic Substances

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information**Abbreviations**

AC: Article Category

ACGIH: American Conference of Governmental Industrial Hygienists

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

ADNR: Accord européen relatif au transport international des marchandises dangereuses par navigation sur le Rhin

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route

AGW: Arbeitsplatzgrenzwert

AICS: Australian Inventory of Chemical Substances

AOX: adsorbable organically bound halogens

ARW: Arbeitsplatzrichtwert (Germany)

ASTM: American Society for Testing And Materials

ATE: acute toxicity estimates

ATP: Adaptation to technical and scientific progress

AWsV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Germany)

BAR: Biologischer Arbeitsstoff-Referenzwert

BCF: bioconcentration factor

BetrSichV: Betriebssicherheitsverordnung (Germany)

BG: Berufsgenossenschaft (Germany)

BGW: Biologischer Grenzwert

BLW: Biologischer Leitwert

BOD: biochemical oxygen demand

CAS: Chemical Abstracts Service

cATpE: converted acute toxicity point estimate

CEA: Comité Européen des Assurances

CEFIC: European Chemical Industry Council

CESIO: Comité Européen des Agents de Surface et leurs Intermédiaires Organiques

ChemG: Chemikaliengesetz (Germany)

CMR: Cancerogen Mutagen Reprotoxic

COD: chemical oxygen demand

DFG: Deutsche Forschungsgemeinschaft

DIN: german industry standard

DMEL: Derived minimal effect level

DNEL: Derived no effect level

DOC: dissolved organic carbon

DSL: Canada Domestic Substances List

EAK: Europäischer Abfallkatalog

EbC: inhibitory concentration of growth

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EC: effective concentration
EC: European Community
ECETOC: European Centre For Ecotoxicology and toxicology of Chemicals
ECHA: European Chemicals Agency
EEC: European Economic Community
EG: Europäische Gemeinschaft
EH40: List of approved workplace exposure limits
EINECS: European Inventory of Existing Commercial Chemical Substances
EKA: Expositionsäquivalente für krebserzeugende Arbeitsstoffe
EL: effect level
ELINCS: European List of Notified Chemical Substances
EmS: Emergency Schedules
EN: european standards
ENCS: Japanese Existing and New Chemical Substances Inventory
ERC: Environmental Release Category
ErC: inhibitory concentration of the growth rate
EU: European Union
EWG: Europäische Wirtschaftsgemeinschaft
FDA: Food and Drug Administration
FMVSS: National Highway Traffic Safety Administration
GefStoffV: Gefahrstoffverordnung
GGVSee: Gefahrgutverordnung See
GHS: Globally Harmonized System of classification and Labelling of Chemicals
IARC: International Agency for Research on Cancer
IATA: International Civil Aviation Organization
IBC: Intermediate Bulk Container
IC: inhibitory concentration
ICAO: International Air Transport Association
IECSC: Chinese Chemical Inventory of Existing Chemical Substances
IMDG: International Maritime Code for Dangerous Goods
IMO: International Maritime Organization
INCI: International Nomenclature of Cosmetic Ingredients
IRPTC: International Register of Potentially Toxic Chemicals
ISO: International Organization for Standardization
IUCLID: International Uniform Chemical Information Database
Cat: category
KBwS: Kommission zur Bewertung wassergefährdender Stoffe (Germany)
KECI: Korea Existing Chemicals Inventory
LC: Lethal concentration
LD: Lethal dose
LDLo: lethal dose low
LGK: storage category
LL: Lethal level
LLC: Lowest lethal concentration
NCI: National Chemicals Inventory
LOAEL: Lowest observed adverse effect level
LOEC: Lowest observed effect concentration
LOEL: Lowest observed effect level
Log pow: logarithm of the distribution coefficient n-octanol / water
LQ: limited quantity
MAC: Maximale aanvaarde concentratie (Netherlands)
MAK: Maximale Arbeitsplatz-Konzentration
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (MARPOL: Marine Pollution)
MEL: Maximum exposure limits
MITI: Ministry of International Trade and Industry (Japan)
n.a.g.: nicht anders genannt
NATEC: Naval Air Technical Data and Engineering Service Command
NCI: National Chemicals Inventory

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NLP: No-longer Polymer
 NOAEC: No observed adverse effect concentration
 NOAEL: no observable adverse effect level
 NOEC: No observable effect concentration
 NOEL: No observable effect level
 NOELR: no observable effect loading rate
 NZIOC: New Zealand Inventory of Chemicals
 OECD: Organisation for Economic Co-operation and Development
 OEL: Occupational exposure limit
 OELV: Occupational exposure limit value
 OES: Occupational exposure standards
 PBT: Persistent, Bioaccumulative and Toxic
 PC: Product Category
 PEC: Predicted environmental concentration
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 PNEC: predicted no effect concentration
 PNEC: Predicted no effect concentration
 pOW: Octanol-water partition coefficient
 PROC: Process Category
 REACH: Registration, Evaluation, Autohorisation and Restriction of Chemicals
 RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
 RTECS: Registry of Toxic Effects of Chemical Substances
 SAE: Society of Automotive Engineers
 STP: Sewage treatment plant
 SU: Sector of Use
 SUVA: Schweizerische Unfallversicherungsanstalt
 SVHC: Substances of very high concern
 TA Luft: Technische Anleitung zur Reinhaltung der Luft
 TCCL: Toxic Chemical Control Law
 ThOD: theoretical oxygen demand
 TRA: targeted risk assessment
 TRG: Technische Regeln Druckgase (Germany)
 TRgA: Technische Regeln für gefährliche Arbeitsstoffe(Germany)
 TRGS: Technische Regeln für Gefahrstoffe
 TRK: Technische Richtkonzentration
 TSCA: Toxic Substances Control Act (USA)
 UN: United Nations
 VbF: Verordnung über brennbare Flüssigkeiten
 VCI: Verband der Chemischen Industrie e.V.
 VDE: Verband der Elektrotechnik, Elektronik und Informtaionstechnik e.V.
 VDI: Verein Deutscher Ingenieure
 VLEP: Valeurs Limites d'exposition Professionnelle
 VOC: Volatile Organic Compound
 vPvB: Very persistent and very bioaccumulative
 VwVwS: Verwaltungsvorschrift wassergefärdende Stoffe
 WEL: Workplace exposure limit
 WGK: water hazard class (Germany)
 WHO: World Health Organization
 WoE: Weight of Evidence

Department issuing safety data sheet

Department product safety

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
 This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.