

1,3 Butylene Glycol

Date of compilation: 24/02/2025

Version: 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: 1,3 Butylene Glycol

Butane-1,3-diol

CAS: 107-88-0

EC: 203-529-7

Index: Not available

REACH: 01-2119409085-46-XXXX

Other means of identification:

Not available

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

Relevant uses (Industrial user): Industrial cleaning solvent

For Industrial user only.

Polymer productions

pharmaceutical

Formulation

laboratory chemicals

Lubricant in medicale care

Ceramic pastes and glazes (dental technology)

Ingredient in fog machines

Intermediate

Consumer use of washing and cleaning products

Cosmetics, personal care products

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:DutCH₂ B.V.

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1441 EJ Purmerend - Nederland

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1.4 Emergency telephone number: +31299 391850 (24h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:**CLP Regulation (EC) No 1272/2008:**

The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

2.2 Label elements:**CLP Regulation (EC) No 1272/2008:**

None

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:**Chemical description:** Glycol/s

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 107-88-0 EC: 203-529-7 Index: Not available REACH: 01-2119409085-46-XXXX	Butane-1,3-diol	Not classified	100 %
	Regulation 1272/2008		

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

3.2 Mixture:

Not available

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Consult a doctor in case of discomfort showing the SDS for the product.

By inhalation:

In case of symptoms, move the person affected into fresh air.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse with water until the product has been eliminated. In case of problems, consult a doctor showing the SDS for the product.

By ingestion/aspiration:

In case of consumption in large quantities, it is recommended to seek medical assistance.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Not available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task.

For emergency responders:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.: 1 °C

Maximum Temp.: 40 °C

Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

Not available

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Butane-1,3-diol	Oral	Not available	Not available	25 mg/kg	Not available
CAS: 107-88-0	Dermal	Not available	Not available	Not available	Not available
EC: 203-529-7	Inhalation	Not available	Not available	Not available	Not available

PNEC:

Identification					
Butane-1,3-diol	STP	1803,5 mg/L	Fresh water	Not available	
CAS: 107-88-0	Soil	Not available	Marine water	Not available	
EC: 203-529-7	Intermittent	Not available	Sediment (Fresh water)	Not available	
	Oral	Not available	Sediment (Marine water)	Not available	

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.55 mm)			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018
 Mandatory hand protection	Protective gloves against minor risks (Material: PVC/Nitrile, Breakthrough time: > 480 min, Thickness: 0.9 mm)			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2022	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2022 y EN 13832-1:2019

F.- Additional emergency measures

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

It is not necessary to take additional emergency measures.

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Not available
Average molecular weight:	Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Transparent
Colour:	Colourless
Odour:	Mild
Odour threshold:	Not available *

Volatility:

Boiling point at atmospheric pressure:	209 °C
Vapour pressure at 20 °C:	2 Pa
Vapour pressure at 50 °C:	26 Pa (0,03 kPa)
Evaporation rate at 20 °C:	Not available *

Product description:

Density at 20 °C:	1007 kg/m ³
Relative density at 20 °C:	1,007
Dynamic viscosity at 20 °C:	133,64 mPa·s
Kinematic viscosity at 20 °C:	132,71 mm ² /s
Kinematic viscosity at 40 °C:	Not available *
Concentration:	Not available *
pH:	6 - 7
Vapour density at 20 °C:	Not available *
Partition coefficient n-octanol/water 20 °C:	0,9
Solubility in water at 20 °C:	Not available *
Solubility properties:	Not available *
Decomposition temperature:	Not available *
Melting point/freezing point:	-57 °C

Flammability:

Flash Point:	109 °C (CC)
Flammability (solid, gas):	Not available *

*Not available due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Autoignition temperature: 394 °C
 Lower flammability limit: 1,9 % Volume
 Upper flammability limit: 12,6 % Volume
Particle characteristics:
 Median equivalent diameter: Not available *

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Not available *
 Oxidising properties: Not available *
 Corrosive to metals: Not available *
 Heat of combustion: 25,24 kJ/g
 Aerosols-total percentage (by mass) of flammable components: Not available *

Other safety characteristics:

Surface tension at 20 °C: 0,07 N/m
 Refraction index: Not available *

*Not available due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met
- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Based on available data, the classification criteria are not met
 - Contact with the eyes: Based on available data, the classification criteria are not met
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met
IARC: Not available
 - Mutagenicity: Based on available data, the classification criteria are not met
 - Reproductive toxicity: Based on available data, the classification criteria are not met
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met
 - Skin: Based on available data, the classification criteria are not met
- F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met
- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met
 - Skin: Based on available data, the classification criteria are not met
- H- Aspiration hazard:

Based on available data, the classification criteria are not met

Other information:

Not available

Product-specific toxicological information:

Acute toxicity		Genus
LD50 oral	22800 mg/kg	Rat
LC50 inhalation vapour	292 mg/L	Rat

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Butane-1,3-diol CAS: 107-88-0 EC: 203-529-7	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	

11.2 Information on other hazards:**Endocrine disrupting properties**

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not available

SECTION 12: ECOLOGICAL INFORMATION

Based on available data, the classification criteria are not met

12.1 Toxicity:**Product-specific aquatic toxicity:**

Acute toxicity		Species	Genus
LC50	>110 mg/L (96 h)	Oryzias latipes	Fish
EC50	>1000 mg/L (48 h)	Daphnia magna	Crustacean
EC50	>1070 mg/L (72 h)	Desmodesmus subspicatus	Algae

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Substance-specific aquatic toxicity:

Not available

12.2 Persistence and degradability:**Product-specific information:**

Degradability		Biodegradability	
BOD5	Not available	Concentration	Not available
COD	Not available	Period	29 days
BOD5/COD	Not available	% Biodegradable	81 %

Substance-specific information:

Not available

12.3 Bioaccumulative potential:**Product-specific information:**

BCF: Not available

Pow Log: -0,9

Substance-specific information:

Not available

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Butane-1,3-diol	Koc	Not available	Henry	Not available
CAS: 107-88-0	Conclusion	Not available	Dry soil	Not available
EC: 203-529-7	Surface tension	3,773E-2 N/m (25 °C)	Moist soil	Not available

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
07 06 99	wastes not otherwise specified	Non-hazardous

Type of waste (Regulation (EU) No 1357/2014):

Not available

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID, IMDG, IATA)

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SECTION 15: REGULATORY INFORMATION

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

- Article 95, REGULATION (EU) No 528/2012: Not available
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not available
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not available
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not available
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not available
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not available

Seveso III:

Not available

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc)

:

Not available

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

- Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products
- Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents
- Commission Regulation (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII
- Commission Regulation (EC) No 551/2009 of 25 June 2009 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes V and VI thereto (surfactant derogation)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Not available

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Not available

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

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SECTION 16: OTHER INFORMATION (continued)

ADR: European agreement concerning the international carriage of dangerous goods by road
 IMDG: International maritime dangerous goods code
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organisation
 COD: Chemical Oxygen Demand
 BOD5: 5day biochemical oxygen demand
 BCF: Bioconcentration factor
 LD50: Lethal Dose 50
 LC50: Lethal Concentration 50
 EC50: Effective concentration 50
 LogPOW: Octanolwater partition coefficient
 Koc: Partition coefficient of organic carbon
 UFI: unique formula identifier
 IARC: International Agency for Research on Cancer



The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -