

Safety data sheet

CHINA
AMINES

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BASF Safety data sheet
Date / Revised: 16.09.2023
Product: **BUTYLDIGLYCOL**

Version: 12.0

(30034744/SDS_GEN_PH/EN)

Date of print: 27.04.2024

1. Substance/preparation and manufacturer/supplier identification

Product name:
BUTYLDIGLYCOL

Use: process chemical, solvent(s)

Manufacturer/supplier:

China Amines Co., Ltd
UNIT 1021, BEVERLEY COMMERCIAL CENTRE, 87-105CHATHAM
ROAD SOUTH, TSIM SHA TSUI, KOWLOON HONG KONG
Telephone: +63 2 8811-8000
E-mail address: info@chinaamines.com

Emergency information:

National emergency number:
+86 18938922889
International emergency number:
Telephone: +86 18938922889

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat.5 (oral)
Acute toxicity: Cat.5 (dermal)
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A

Label elements and precautionary statement:

Pictogram:

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Signal Word:
Warning

Hazard Statement:

H319 Causes serious eye irritation.
H316 Causes mild skin irritation.
H303 + H313 May be harmful if swallowed or in contact with skin.

Precautionary Statements (Prevention):

P280 Wear eye and face protection.
P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312 Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P311 If eye irritation persists: Call a POISON CENTER or physician.
P332 + P313 If skin irritation occurs: Get medical attention.

Other hazards which do not result in classification:

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.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

Butyl diglycol

CAS Number: 112-34-5

Hazardous ingredients

Butyl diglycol

Content (W/W): > 99 % - < 99.8 %
CAS Number: 112-34-5
Acute Tox.: Cat. 5 (oral)
Acute Tox.: Cat. 5 (dermal)
Skin Corr./Irrit.: Cat. 3
Eye Dam./Irrit.: Cat. 2A

4. First-Aid Measures

General advice:
Remove contaminated clothing.

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If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

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, consult an eye specialist.

On ingestion:

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

Note to physician:

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

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.

Specific hazards:

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

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.

Further information:

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

6. Accidental Release Measures

Personal precautions:

Handle in accordance with good industrial hygiene and safety practice.

Environmental precautions:

Discharge into the environment must be avoided.

Methods for cleaning up or taking 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.

Additional information: 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.

7. Handling and Storage

Handling

Prevent contact with air/oxygen (formation of peroxide). Ensure thorough ventilation of stores and work areas. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Storage

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

8. Exposure controls and personal protection

Components with occupational exposure limits

Butyl diglycol, 112-34-5;

TWA value 10 ppm (ACGIHTLV), Inhalable fraction and vapor

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):

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nitrile rubber (NBR) - 0.4 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 required additionally to the stated personal protection equipment.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	almost odourless	
Odour threshold:	not determined	
pH value:	(20 °C) neutral, miscible	
pKA:	14.77 (25 °C) The substance does not dissociate.	(calculated)
Melting point:	-68.0 °C Literature data.	(other)
Boiling point:	230.5 °C (1,013.25 hPa)	(other)
Flash point:	105 °C	(ASTM D93, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability (solid/gas):	hardly combustible	(derived from flash point)

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Lower explosion limit:	0.69 %(V) 46 g/m ³ (102.2 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit.	(air)
Upper explosion limit:	5.9 %(V) 398 g/m ³ (143 °C) The upper explosion point of the substance/mixture has been determined. This explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the upper explosion limit.	(air)
Ignition temperature:	210 °C	(DIN 51794)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Self heating ability:	not applicable, the product is a liquid	
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.	
Vapour pressure:	0.03 hPa (25 °C) Literature data.	(measured)
Density:	approx. 0.9553 g/cm ³ (20 °C) Literature data.	(other)
Relative density:	0.9553 (20 °C) Literature data.	(other)
Relative vapour density (air):	5.59 (20 °C) Heavier than air.	(calculated)
Solubility in water:	miscible (20 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	

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Partitioning coefficient n-octanol/water (log Pow):	1	(OECD Guideline 117)
	(20 °C; pH value: 7)	
Adsorption/water - soil:	KOC: 10; log KOC: 1	(calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Viscosity, dynamic:	6.49 mPa.s	
	(20 °C)	
	Literature data.	
Molar mass:	162.23 g/mol	

10. Stability and Reactivity

Conditions to avoid:

No special precautions other than good housekeeping of chemicals.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong oxidizing agents

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:

Reacts with strong oxidizing agents. Reacts with light metals, with evolution of hydrogen.

Hazardous decomposition products:

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

Chemical stability:

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

Reactivity:

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:

LD50mouse (oral): 2,410 mg/kg (OECD Guideline 401)

Acute inhalation toxicity

LC50 rat (by inhalation): > 29 ppm 2 h (IRT)

No mortality was observed. The vapour was tested.

Acute dermal toxicity

LD50 rabbit (dermal): 2,764 mg/kg (OECD Guideline 402)

Assessment of acute toxicity

Of low toxicity after single ingestion. Of low toxicity after short-term skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

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.

Irritation

Assessment of irritating effects:

Eye contact causes irritation. May cause slight irritation to the skin.

Experimental/calculated data:

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

Serious eye damage/irritation rabbit: Irritant. (similar to OECD guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

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

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Carcinogenicity

Assessment of carcinogenicity:

No data was available concerning carcinogenic activity.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

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

Specific target organ toxicity (single exposure)

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:

No substance-specific organotoxicity was observed after repeated administration to animals.
Prolonged or repeated contact may cause mild skin irritation.

Aspiration hazard

not applicable

12. Ecological Information

Ecotoxicity

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) 1,300 mg/l, *Lepomis macrochirus* (OECD Guideline 203, static)
Literature data. Nominal concentration.

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2, static)
Nominal concentration.

Aquatic plants:

EC50 (96 h) > 100 mg/l (growth rate), *Scenedesmus subspicatus* (OECD Guideline 201, static)
Nominal concentration.

Microorganisms/Effect on activated sludge:

EC10 (30 min) > 1,995 mg/l, activated sludge, industrial (OECD Guideline 209, aquatic)
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.

Mobility

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Persistence and degradability

Elimination information:

80 - 90 % BOD of the ThOD (28 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C))

Assessment of stability in water:

No data available.

Bioaccumulation potential**Assessment bioaccumulation potential:**

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

Bioaccumulation potential:

No data available.

Other adverse effects**Adsorbable organically-bound halogen (AOX):**

This product contains no organically-bound halogen.

Additional information**Other ecotoxicological advice:**

Do not release untreated into natural waters.

13. Disposal Considerations

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignments.

Contact the manufacturer directly in case of waste disposal problems with the assigned waste-codes.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information**Domestic transport:**

	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

Sea transport

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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
	Marine pollutant: no
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
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

15. Regulatory Information

Other regulations

1. Joint DTI-DENR-DA-DOF-DOH-DILG-DOLE-DOTC Administrative Order No. 01 Series of 2009 on "The Adoption and Implementation of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)"
2. DAO 2015-09 "Rules and Procedures for the Implementation of the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals in Prepration of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances"
3. Republic Act No. 6969, "Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990"

The regulatory information is not intended to be comprehensive. Other regulations may apply to the material

Registration status:

PICCS, PH released / listed

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16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

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.