

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



70901 Butyl Glycol

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Revised edition: 30.11.2023

Version: 1.0

Printed: 12.12.2023

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Butyl Glycol
Article No.: 70901
UFI: 0330-D0MD-A00R-NNYW

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:
Solvent

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG
Address: Hauptstr. 41-47, 88317 Aichstetten, Germany
Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606
Internet: www.kremer-pigmente.com
E-Mail: info@kremer-pigmente.com
Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

1.4.2 Poison Center:

2. Hazards Identification

2.1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Acute toxicity (oral), hazard category 4
Skin irritation, hazard category 2
Serious eye damage, hazard category 2
Acute toxicity (inhalation), hazard category 3

H302	Harmful if swallowed.
Cat.: 4	
H315	Causes skin irritation.
Cat.: 2	
H319	Causes serious eye irritation.
Cat.: 2	
H331	Toxic if inhaled.
Cat.: 3	

Possible Environmental Effects:

See Section 12.

2.2. Label Elements

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Hazard designation:

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GHS06-2

Signal word:

Danger

Hazard designation:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.

Safety designation:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280	Wear protective gloves/ clothing/ eye/ face protection.
P304+P340	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P311	Call a poison center or physician.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P501	Dispose of contents/ container according to regional, national and international regulations.

Hazardous components for labelling:

2.3. Other Hazards

This material is combustible, but not easily inflammable.

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization:

Information on Components / Hazardous Ingredients:

Butyl glycol (H302-315-319-331); REACH Reg. No. 01-2119475108-36-xxxx	100 %	CAS-Nr: 111-76-2 EINECS-Nr: 203-905-0 EC-Nr: 603-014-00-0
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Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

*Do not leave affected person unattended.
Take person away from hazardous area.
Remove contaminated clothes immediately.
Self-protection of the first-aider.*

After inhalation:

Supply fresh air. If required give artificial respiration. In case of

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complaints or unconsciousness consult a physician. In case of unconsciousness place patient stable in side position for transportation.

After skin contact:

Wash off with plenty of water and soap.

After eye contact:

Remove contact lens.

Rinse open eyes with plenty of water for at least 10 minutes.

After ingestion:

Do not induce vomiting. Consult physician immediately.

Rinse mouth with plenty of water and consult physician.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

Headache, dizziness, breathing difficulties.

Effects:

No further information available.

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

*Subsequent observation for pneumonia and pulmonary edema.
Monitor the circulation.*

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

Water mist, extinguishing powder, foam, carbon dioxide.

Unsuitable extinguishing media:

Never apply a strong water jet.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

Fumes can form an explosive mixture with air.

In case of fire: formation of carbon monoxide and dioxide.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear suitable protective clothing.

Further information:

Cool exposed containers with water mist.

*Collect contaminated extinguishing water and debris separately;
avoid contamination of sewage system.*

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear appropriate protective equipment. Keep spectators away.

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*Do not inhale vapors or mist.
Avoid contact with eyes and skin.*

6.2. Environmental Precautions

Environmental precautions:

*Prevent contamination of soils, drains and surface water.
Contact local authorities if product pollutes soil or vegetation.*

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

Contain with absorbent material (sand, diatomaceous earth, universal absorbent, Oil Dri) and dispose accordingly.

6.4. Reference to other Sections

Protective clothing, see Section 8.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

Provide good ventilation and/or exhaust at the workplace. Ensure adequate ventilation. Handle and open container with care.

Keep containers tightly closed.

Avoid contact with eyes and skin.

The usual precautionary measures are to be adhered to when handling chemicals.

A nearby eyewash facility should be available for emergencies.

Hygienic measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store the product in the original tightly sealed containers in a dry and cool place.

Floor must be solvent resistant and leakproof.

Keep away from ignitable sources, heat and fire.

Product is hygroscopic.

Requirements for storage areas and containers:

Store the product in the original container.

Information on fire and explosion protection:

Combustible liquid.

Vapors may form an explosive mixture with air. Vapor is heavier than air and spreads along the ground.

Take measures to prevent electrostatic discharge.

Do not store together with: foodstuffs and animal feed.

Do not store together with combustible and self-ignitable products.

Storage class:

6.1 C; Combustible, acute toxic cat. 3 / toxic products (TRGS 510)

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Further Information:

7.3. Specific End Use(s)

Further information:

No information available.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

TRGS 900

2-Butoxyethanol (CAS 111-76-2), TLV: 98 mg/m³; 20 ppm (4)

Can be absorbed by the skin.

Y: No teratogenic risk when the exposure limit values (ELV) and biological limit values (BLV) are adhered to.

STEL: 246 mg/m³, 50 ppm EU ELV

TWA: 98 mg/m³, 20 ppm EU ELV

Parameters to be controlled:

Butyl glycol (CAS 111-76-2); IOELV (EC): Average value: 20 ppm, 98 mg/m³; Short term value: 50 ppm, 246 mg/m³; MAK (CH): Average value: 10 ppm, 40 mg/m³; Short term value: 20 ppm, 98 mg/m³; MAK (AT): Average value: 20 ppm, 98 mg/m³; Short term value: 40 ppm (30min), 200 mg/m³ (30min)

Derived No-Effect Level (DNEL):

125 mg/kg (worker, skin contact, acute - systemic effects)

89 mg/kg bw/d (worker, skin contact, acute - systemic effects)

98 mg/kg (worker, inhalation, chronic - systemic effects)

1091 mg/m³ (worker, inhalation, acute - systemic effects)

246 mg/m³ (worker, inhalation, acute - local effects)

Predicted No-Effect Concentration (PNEC):

Fresh water: 8.8 mg/l

Fresh water sediment: 34.6 mg/kg (DW)

Seawater: 0.88 mg/l

Sea water sediment: 3.46 mg/kg (DW)

Soil: 2.33 mg/kg

Sewage treatment system (STP): 463 mg/l

Additional Information:

Biological limit value:

Butyl glycol: 150 mg/g (urine, CH; SUVA); 150 mg/l (urine, DE; TRGS 903)

8.2. Exposure Controls

Technical protective measures:

Adequate ventilation to control airborne concentrations below the exposure limits.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke

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during work. Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin.

Do not inhale gas/fumes/vapor/aerosol.

Remove contaminated clothing immediately.

Respiratory protection:

Respiratory equipment required in case of insufficient ventilation, filter type A.

Hand protection:

Protective gloves

Protective gloves should be changed regularly, especially after intensive contact with the product.

Each work area must have adequate protective gloves.

Protective glove material:

Polyethylene (PE), chloroprene rubber (CR), butyl rubber (120 min, 0.4 mm)

Recommended: Protective index 4, corresponding > 120 min. of permeation time (EN 374).

Eye protection:

Tightly fitting safety goggles (EN 166).

Body protection:

Protective clothing, solvent resistant

Environmental precautions:

Prevent contamination of open water ways and sewage system. Avoid contamination of ground water.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: liquid

Color: colorless

Odor: like ether

Odor threshold: no information available

pH-Value: not applicable

Melting temperature: -75°C (1013 hPa)

Boiling temperature: 173°C (1013 hPa)

Flash point: 67°C (ASTM D 93)

Evaporation rate:

Flammability (solid, gas):

Product is combustible, but not easily flammable.

Upper explosion limit: 10.6 Vol.%

Lower explosion limit: 1.1 Vol.%

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<i>Vapor pressure:</i>	<i>0.89 hPa (20°C)</i>
<i>Vapor density:</i>	<i>4.08 (20°C) (air=1)</i>
<i>Density:</i>	<i>0.9 g/cm³ (20°C)</i>
<i>Solubility in water:</i>	<i>completely miscible</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>0.81 logKow (25°C)</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	<i>3.9 mPa.s (20°C)</i>
<i>Explosive properties:</i>	<i>Product is not explosive; however, an explosive vapor/air mixture can be formed.</i>
<i>Oxidizing properties:</i>	<i>not oxidizing</i>
<i>Bulk density:</i>	<i>not determined</i>

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

Temperature class: T3 (maximum temperature: 200°C)

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

No decomposition if used according to specifications.

10.3. Possibility of Hazardous Reactions

Incompatible with strong oxidizing agents.

10.4. Conditions to Avoid

Conditions to avoid:

No further information available.

Thermal decomposition:

No decomposition if used according to specifications.

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10.5. Incompatible Materials

Oxidizing agents.

10.6. Hazardous Decomposition Products

Carbon oxides

10.7. Further Information

11. Toxicological Information

11.1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

Acute Toxicity

LD50, oral: 1200 mg/kg (guinea pig)

LD50, dermal: > 2000 mg/kg (rat)

LC50, inhalation: > 2.25 mg/l (4h)

Primary effects

Irritant effect on skin:

Causes skin irritation.

Irritant effect on eyes:

Causes serious eye irritation.

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

No sensitizing effect (guinea pig).

Mutagenicity:

In vitro genetic-toxicity: no mutagenic effects

Reproductive toxicity:

Some effects on the reproduction were only observed in animal tests at high dosages, in which toxic effects were induced onto the parents.

Carcinogenicity:

No cancerogenic effect (in animal studies).

Teratogenicity:

Did not show any teratogenic effects in animal studies.

Specific target organ toxicity (STOT):

Single exposure: the substance or mixture is not classified as specific target organ toxicant.

Repeated exposure: the substance or mixture is not classified as specific target organ toxicant.

Aspiration hazard:

No risk of aspiration.

11.2. Information on other Hazards

No further information available.

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12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

LC50: 1474 mg/l (96h, Oncorhynchus mykiss; OECD 203)

Daphnia toxicity:

EC50: 1550 mg/l (48h, Daphnia magna; OECD 202)

NOEC: 297 mg/l (21d, Daphnia magna; OECD 211)

Bacteria toxicity:

EC0: 700 mg/l (16h; Pseudomonas putida)

Algae toxicity:

EC50: 1840 mg/l (72h, Pseudokirchneriella subcapitata; OECD 201)

12.2. Persistency and Degradability

90 %; readily biodegradable (28d, active sludge; OECD 301B)

12.3. Bioaccumulation

log KOW: 0,81 (25°C)

Bioaccumulation is not to be expected.

12.4. Mobility

Does not evaporate from the surface of the water to the atmosphere.

Adsorption to solid soil phase is not expected.

12.5. Results of PBT- und vPvP Assessment

This substance is not classified as PBT (persistent, bioaccumulative, toxic), nor as vPvB (very persistent, very bioaccumulative).

12.6. Endocrine Disrupting Properties

This substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) No. 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

12.7. Other Adverse Effects

Water hazard class:

Do not let product contaminate ground water, waterways or sewage system.

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

Dispose of according to official national and local regulations.

European Waste Code (EWC):

The waste code is determined according to the kind of waste and next page: 10

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industry stated in the European Waste Catalogue.

Uncleaned packaging:

Dispose of according to official local regulations.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA

14.2. UN Proper Shipping Name

ADR/RID:

No hazardous goods according to ADR / DOT (US) (land transportation).

IMDG/IATA:

Not hazardous goods

14.3. Transport Hazard Classes

ADR Class:

not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

IMDG Class (sea):

not applicable

Hazard no.:

EmS No.:

IATA Class:

not applicable

Hazard no.:

14.4. Packaging Group

ADR/RID:

not applicable

IMDG:

IATA:

14.5. Environmental Hazards

None

14.6. Special Precautions for User

not applicable

14.7. Maritime Transport in Bulk according to IMO Instruments

IMDG: not applicable

14.8. Further Information

15. Regulatory Information

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15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

1, slightly hazardous for water (according to the German Regulation AwSV)

Local regulations on chemical accidents:

Seveso-III Directive (2012/18/EU):

Acute toxic (H2): Amount 1: 50 t; Amount 2: 200 t

Employment restrictions:

The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.

The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline are to be observed.

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 3, 75

Technical instructions on air quality:

5.2.5.: Organic substances: > 25 wt.-% (m \geq 0.50 kg/h: conc. 50 mg/m³)

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

15.3. Further Information

Listed in the following inventories:

2-Butoxyethanol:

EINECS (203-905-0), TSCA (US), AIIIC (AUS), DSL/ INV (CA), CECL-ENCS (JP), KECI (KR), PICCS (PH), IECSC (CN), NZIoC (NZ), TCSI (TW), NCI (VN), CICR (TR)

RoHS Directive 2011/65/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS): not listed.

Regulation (EC) No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register (PRTR): Not listed

Regulation on Persistent Organic Polutants (POP): not listed

Directive 2010/75/EC on Industrial Emissions:

VOC Content: 100 %

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.