Butyldiglycol

(Edition dated April 2016, valid until March 2018 /
valid for product produced in Ludwigshafen only)

BASF Trade Name	Butyldiglycol (Hereinafter “Product”)
Chemical name	2-(2-butoxyethoxy)ethanol
CAS No.	112-34-5
EC-No.	203-961-6
REACH-Registration	Registered by BASF SE

Chemical inventory status

Switzerland (CHEMINV)	Yes	203-961-6
USA (TSCA)	Yes	
Canada (DSL)	Yes	
Japan (ENCS)	Yes	(2)-422, (7)-97
South Korea (ECL)	Yes	KE-10466
Australia (AICS)	Yes	
Philippines (PICCS)	Yes	
China (IECSC)	Yes	
New Zealand (NZIOC)	Yes	HSR001075

Food contact regulations

This is a technical product. In the case of food contact applications, such as printing inks, the customer must establish from their own testing that the Product is lawful and technically suitable for the manufacture of the food contact material or article.
Where necessary, the customer should contact their supplier in order to jointly agree on appropriate specifications for the proposed use.

Certificates

The Regional Business Unit Industrial Petrochemicals Europe has implemented and maintains:

- a Quality Management System that fulfills the requirements of the ISO 9001:2008 standard.
- an Environmental Management System that fulfills the requirements of the ISO 14001:2004 standard.

Compliance with Directive 2011/65/EC (RoHS-Requirements)

Due to the production process, the Product does not contain any

- lead
- mercury
- cadmium
- hexavalent chromium
- polybrominated biphenyls
- polybrominated diphenyl ethers

nor are these substances added to the Product otherwise.

In a chemical analysis of the Product, all these substances are below the detection limit of:

Lead	< 0.005 mg/kg
Mercury	< 0.005 mg/kg
Cadmium	< 0.005 mg/kg
Chromium	< 0.005 mg/kg
PBB	< 1 mg/kg as bromine
PBDE	< 1 mg/kg as bromine

The following substances were not intentionally added to the production process of the Product

- DEHP (Di(2-ethylhexyl)phthalate)
- BBP (Butylbenzylphthalate)
- DBP (Dibutylphthalate)
- DIBP (Diisobutylphthalate)

nor are these substances added to the Product otherwise.

The Product is not analysed with respect to Phthalate content.

Note: Annex II of EU Directive 2011/65 was modified. The modified Annex II came into force April 20, 2015. By using the Product it is possible to comply with the requirements of Annex II of EU Directive 2011/65.

Perfluorooctane sulfonates, PFOS: Compliance with EU Regulation 850/2004

The chemical analysis of the Product shows a fluorine content of less than 1 mg/kg. From this result it can be calculated that there is a content of less than 2 mg/kg of perfluorooctane sulfonates (PFOS) or perfluorooctanoic acid (PFOA). This is significantly less than the limit of 10 mg/kg (0.001%) stipulated by EU Regulation 850/2004. Therefore, by using Product it is possible to comply with the requirements of EU Regulation 850/2004.

Polycyclic aromatic hydrocarbons (PAH)

In a chemical analysis of the Product (method used HPLC), we searched for the 18 priority PAHs that are

Acenaphthene	< 0.01 mg/kg
Acenaphthylene	0.94 mg/kg (measured value)
Anthracene	< 0.01 mg/kg
Benzo(a)anthracene	< 0.01 mg/kg
Benzo(b)fluoranthene	< 0,01 mg/kg
Benzo(j)fluoranthene	< 0.01 mg/kg
Benzo(k)fluoranthene	< 0.01 mg/kg
Benzo(g,h,i)perylene	< 0.01 mg/kg
Benzo(a)pyrene	< 0.01 mg/kg
Benzo(e)pyrene	< 0.01 mg/kg
Chrysene	< 0.01 mg/kg
Dibenzo(a,h)anthracene	< 0.01 mg/kg
Fluoranthene	< 0.01 mg/kg
Fluorene	< 0.01 mg/kg
Indeno(1,2,3-cd)pyrene	< 0.01 mg/kg
Naphthalene	< 0.01 mg/kg
Phenanthrene	< 0.01 mg/kg

Pyrene	< 0.01 mg/kg

In total, a quantity of less than 2 mg/kg of the PAHs was found. Most of the single PAHs were below the detection limit of 0.01 mg/kg.

Analysis of chemical elements

In a chemical analysis of the Product, all of the following elements are below the detection limit of:

Lithium (Li)	< 0.005 mg/kg
Beryllium (Be)	< 0.005 mg/kg
Nitrogen (N)	< 1 mg/kg
Fluorine (F)	< 1 mg/kg
Sodium (Na)	< 0.005 mg/kg
Magnesium (Mg)	< 0.005 mg/kg
Aluminium (Al)	< 0.005 mg/kg
Phosphorus (P)	< 1 mg/kg
Sulfur (S)	< 1 mg/kg
Chlorine (Cl)	< 1 mg/kg
Potassium (K)	< 0.005 mg/kg
Calcium (Ca)	< 0.005 mg/kg
Titanium (Ti)	< 0.005 mg/kg
Vanadium (V)	< 0.005 mg/kg
Chromium (Cr)	< 0.005 mg/kg
Manganese (Mn)	< 0.005 mg/kg
Iron (Fe)	< 0.005 mg/kg
Cobalt (Co)	< 0.005 mg/kg
Nickel (Ni)	< 0.005 mg/kg
Copper (Cu)	< 0.005 mg/kg
Zinc (Zn)	< 0.005 mg/kg
Arsenic (As)	< 0.005 mg/kg
Selenium (Se)	< 0.005 mg/kg
Bromine (Br)	< 1 mg/kg
Zirconium (Zr)	< 0.005 mg/kg
Molybdenum (Mo)	< 0.005 mg/kg
Rhodium (Rh)	< 0.005 mg/kg
Silver (Ag)	< 0.005 mg/kg

Cadmium (Cd)	< 0.005 mg/kg
Tin (Stannous) (Sn)	< 0.005 mg/kg
Antimony (Sb)	< 0.005 mg/kg
Barium (Ba)	< 0.005 mg/kg
Tantalum (Ta)	< 0.005 mg/kg
Wolfram (Tungsten) (W)	< 0.005 mg/kg
Gold (Au)	< 0.005 mg/kg
Mercury (Hg)	< 0.005 mg/kg
Thallium (Tl)	< 0.005 mg/kg
Lead (Pb)	< 0.005 mg/kg
Bismuth (Bi)	< 0.005 mg/kg

The theoretical content of a particular chemical compound containing a certain element can be calculated from the content of the pure element concerned.

Product origin, BSE/TSE-risk, Genetic modified organisms (GMO)

The product is produced solely from synthetic raw materials, and no material used during the production process is of bovine or any other animal nor plant origin.
In addition, no material of animal or plant origin is present at any time during production. No materials used are genetically modified substances.

Note

The data contained in this Product Information Sheet is based on our current knowledge and experience as well as our investigations according to the today's state-of-the-art. In view of the many factors that may affect processing and application of the Product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the Product for specific purpose. No liability of BASF can be derived therefrom. It is the responsibility of the recipient of the Product to ensure that any proprietary rights and existing laws and legislation are observed.

April 2016

(Electronically signed, valid without signature)

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