

Trade name: Durofluid (REF 52008)

Current version : 2.0.3, issued: 19.10.2015

Replaced version: 2.0.2, issued: 16.12.2014

Region: GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name

Durofluid (REF 52008)**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Manufacturing of dental prosthesis in a dental laboratory

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**BEGO Bremer Goldschlägerei
Wilh. Herbst GmbH & Co. KG
Wilhelm-Herbst-Str. 1
28359 Bremen

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Information provided by / telephone

Research & Development Department - Materials, alloys and ceramics; +49/ 421/ 2028 – 130 (Chief Development Officer alloys)

Advice on Safety Data Sheet

msds@bego.com

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Eye Dam. 1; H318

Flam. Liq. 3; H226

STOT SE 3; H336

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS02



GHS05



GHS07

Signal word

Danger

Hazardous component(s) to be indicated on label:

propan-1-ol

n-butyl acetate

butan-1-ol

Hazard statements

H226

Flammable liquid and vapour.

H318

Causes serious eye damage.

H336

May cause drowsiness or dizziness.

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Hazard statements (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

PBT assessment
 No data available.
 vPvB assessment
 No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	propan-1-ol			
	71-23-8 200-746-9 603-003-00-0 -	Eye Dam. 1; H318 Flam. Liq. 2; H225 STOT SE 3; H336	> 50.00 - < 70.00	%-b.w.
2	n-butyl acetate			
	123-86-4 204-658-1 607-025-00-1 -	EUH066 Flam. Liq. 3; H226 STOT SE 3; H336	> 30.00 - < 50.00	%-b.w.
3	butan-1-ol			
	71-36-3 200-751-6 603-004-00-6 -	Acute Tox. 4*; H302 Eye Dam. 1; H318 Flam. Liq. 3; H226 Skin Irrit. 2; H315 STOT SE 3; H335 STOT SE 3; H336	> 5.00 - < 10.00	%-b.w.

Full Text for all H-phrases and EUH-phrases: pls. see section 16

(* , ** , *** , ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Call a doctor immediately.

After skin contact

Wash off immediately with soap and water.

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After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart and seek medical advice.

After ingestion

Do not induce vomiting. Call a doctor immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide; Extinguishing powder; Water spray jet; Alcohol-resistant foam

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Use self-contained breathing apparatus. Suppress gases/vapours/mists with water spray jet. Wear protective clothing. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep away sources of ignition. Refer to protective measures listed in sections 7 and 8.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation. Pick up rest with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Do not inhale vapours. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion

Take precautionary measures against electrostatic loading (earthing necessary during loading operations). Vapours can form an explosive mixture with air. Keep away from sources of heat and ignition.

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7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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

Requirements for storage rooms and vessels

Keep only in the original container. Containers which are opened must be carefully closed and kept upright to prevent leakage.

Advice on storage assembly

Do not store together with: oxidizing substances; explosive substances; spontaneously combusting substances; flammable toxic substances; inflammatory substances; Oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
List of approved workplace exposure limits (WELs) / EH40			
Propan-1-ol			
	STEL	625 mg/m ³	250 ml/m ³
	TWA	500 mg/m ³	200 ml/m ³
	Skin resorption / sensibilisation	Sk	
2	n-butyl acetate	123-86-4	204-658-1
List of approved workplace exposure limits (WELs) / EH40			
Butyl acetate			
	STEL	966 mg/m ³	200 ml/m ³
	TWA	724 mg/m ³	150 ml/m ³
3	butan-1-ol	71-36-3	200-751-6
List of approved workplace exposure limits (WELs) / EH40			
Butan-1-ol			
	STEL	154 mg/m ³	50 ml/m ³
	Skin resorption / sensibilisation	Sk	

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
liquid	
colourless to yellowish	
Odour	
characteristic; ester-like	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
Value	119 °C
Melting point / melting range	
No data available	
Decomposition point / decomposition range	
No data available	
Flash point	
Value	31 °C
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapour pressure	
No data available	
Vapour density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	
Density	
Value	0.871 g/cm ³

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Solubility in water

No data available

Solubility(ies)

No data available

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

9.2 Other information**Other information**

No data available.

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

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

None, if handled according to order.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Protect from sun.

10.5 Incompatible materials

Earth alkali metals; Alkali metals; Alcohols; Oxidizing agents; Peroxides

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute oral toxicity**

No data available

Acute dermal toxicity

No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
LD50		4032	mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		

Acute inhalational toxicity

No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
LC50	>	33.8	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		

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Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
Duration of exposure		20	h
Species		rabbit	
Method		OECD 404	
Source		ECHA	
Evaluation		non-irritant	

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
Duration of exposure		72	h
Species		rabbit	
Method		OECD 405	
Source		ECHA	
Evaluation		strongly irritant	

Respiratory or skin sensitisation			
No data available			

Germ cell mutagenicity			
No data available			

Reproduction toxicity			
No data available			

Carcinogenicity			
No data available			

STOT-single exposure			
No data available			

STOT-repeated exposure			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
Route of exposure		inhalational	
NOAEC		8000	mg/m ³
Species		rat	
Method		OECD 413	
Source		ECHA	

Aspiration hazard			
No data available			

Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Inhalation of vapours may lead to headache, drowsiness and dizziness. Inhalation of vapours in higher concentration may lead to irritation of eyes, nose and respiratory tract. Danger of acute eye damage.			

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
LC50		4555	mg/l
Duration of exposure		96	h
Species		Pimephales promelas	
Method		OECD 203	
Source		ECHA	

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Toxicity to fish (chronic)	
No data available	

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
EC50		3644	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	DIN 38412		
Source	ECHA		

Toxicity to Daphnia (chronic)	
No data available	

Toxicity to algae (acute)	
No data available	

Toxicity to algae (chronic)	
No data available	

Bacteria toxicity	
No data available	

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	propan-1-ol	71-23-8	200-746-9
Value		83	- 92 %
Duration			28 d
Method	OECD 301 F		
Evaluation	readily biodegradable		

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information	
Do not discharge product unmonitored into the environment.	

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1866
Technical name	RESIN SOLUTION
Special Provision 640	640E
Tunnel restriction code	D/E
Label	3

14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1866
Proper shipping name	RESIN SOLUTION
EmS	F-E+S-E
Label	3

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1866
Proper shipping name	Resin solution
Label	3

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3, 40
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	P5c
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Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

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15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

Department issuing safety data sheet

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This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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