

Revision date:
22.01.2018**Bizol Brake Fluid DOT 4**

Page 1 of 10

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

Bizol Brake Fluid DOT 4

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.3. Details of the supplier of the safety data sheet**

Company name:	BIZOL BITA Trading GmbH	
Street:	Martin-Buber-Str. 12	
Place:	D-14163 Berlin	
Telephone:	+49 (30) 804 869-0	Telefax: +49 (30) 804 869-2860
e-mail:	support@bizol.de	
Internet:	www.bizol.com	

1.4. Emergency telephone number:

Germany: +49 (30) 804 869-0 (08.00-17.00, Mo-Fr)
In England and Wales: NHS Direct: 0845 4647 or 111 In Scotland: NHS 24 - 08454 24 24 24 In Republic of Ireland: 01 809 2166

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

Hazard categories:
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Hazard Statements:
Causes serious eye irritation.
May cause an allergic skin reaction.

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

Hazard components for labelling
dihydro-3-(tetrapropenyl)furan-2,5-dione

Signal word: Warning

Pictograms:

**Hazard statements**

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

Precautionary statements

P102 Keep out of reach of children.
P261 Avoid breathing mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of waste according to applicable legislation.

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 2 of 10

2.3. Other hazards

Results of PBT and vPvB assessment: not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Blend of the following materials with non-hazardous additives.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol			10 - < 25 %
	205-592-6	603-183-00-0	01-2119475107-38	
	Eye Dam. 1; H318			
111-46-6	2,2' -oxybisethanol			5 - < 10 %
	203-872-2	603-140-00-6	01-2119457857-21	
	Acute Tox. 4, STOT RE 2; H302 H373			
161907-77-3	ethanol, 2-butoxy-, manufacture of, by-products from			< 5 %
	310-287-7		01-2119475115-41	
	Eye Dam. 1; H318			
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione			0,025-<0,25 %
	247-781-6		01-2119979080-37	
	Eye Irrit. 2, Skin Sens. 1A, Aquatic Chronic 4; H319 H317 H413			
67-56-1	methanol			0,025-<0,25 %
	200-659-6	603-001-00-X	01-2119433307-44	
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370			
128-37-0	2,6-di-tert-butyl-p-cresol			0,025-<0,25 %
	204-881-4		01-2119565113-46	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Remove contaminated, saturated clothing immediately.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunk in little sips (dilution effect). Call a physician immediately. Do NOT induce vomiting.

Revision date:
22.01.2018**Bizol Brake Fluid DOT 4**

Page 3 of 10

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

When in doubt or if symptoms are observed, get medical advice.

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

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO₂).**Unsuitable extinguishing media**

High power water jet.

5.2. Special hazards arising from the substance or mixtureHazardous decomposition products: Carbon monoxide Carbon dioxide (CO₂). Do not inhale explosion and combustion gases.**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Do not allow to enter into soil/subsoil.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Clean contaminated articles and floor according to the environmental legislation.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Use personal protection equipment. Do not eat, drink or smoke when using this product. Provide fresh air. Handle and open container with care. Conditions to avoid: generation/formation of aerosols.

Advice on protection against fire and explosion

No special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Protect against: Frost. Keep away from heat. Protect against direct sunlight. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 4 of 10

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
111-46-6	2,2'-Oxydiethanol	23	101		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
111-46-6	2,2' -oxybisethanol			
Worker DNEL, long-term		dermal	systemic	106 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	53 mg/kg bw/day
Worker DNEL, long-term		inhalation	local	60 mg/m ³
Consumer DNEL, long-term		inhalation	local	12 mg/m ³
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione			
Worker DNEL, long-term		dermal	systemic	0,33 mg/kg bw/day
67-56-1	methanol			
Worker DNEL, long-term		dermal	systemic	40 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	40 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	260 mg/m ³
Consumer DNEL, long-term		oral	systemic	8 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	8 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	50 mg/m ³
Worker DNEL, acute		inhalation	systemic	260 mg/m ³
128-37-0	2,6-di-tert-butyl-p-cresol			
Worker DNEL, long-term		inhalation	systemic	5,8 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	1,74 mg/m ³
Worker DNEL, long-term		dermal	systemic	8,3 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	5 mg/kg bw/day

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 5 of 10

PNEC values

CAS No	Substance	Value
Environmental compartment		
111-46-6	2,2' -oxybisethanol	
Freshwater		10 mg/l
Marine water		1 mg/l
Freshwater sediment		20,9 mg/kg
Soil		1,53 mg/kg
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione	
Marine sediment		0,17 mg/kg
Freshwater sediment		1,7 mg/kg
Soil		0,2 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Marine water		0,002 mg/l
67-56-1	methanol	
Freshwater		154 mg/l
Marine water		15,4 mg/l
Freshwater sediment		570,4 mg/l
Marine sediment		57,04 mg/l
Soil		23,5 mg/l
128-37-0	2,6-di-tert-butyl-p-cresol	
Freshwater		4 mg/l
Marine water		0,4 mg/l
Secondary poisoning		16,7 mg/kg
Soil		1,04 mg/kg

8.2. Exposure controls

Appropriate engineering controls

See chapter 7. No additional measures necessary.

Protective and hygiene measures

When using do not eat, drink, smoke, sniff.

Eye/face protection

Eye glasses with side protection.

Hand protection

Wear suitable gloves. Recommended glove articles: DIN EN 374. Suitable material: NBR (Nitrile rubber). Breakthrough time (maximum wearing time): > 480 min (Thickness of the glove material: 0.4 mm). Breakthrough times and swelling properties of the material must be taken into consideration. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Skin protection

Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. When splashes or fine mist form, a permitted breathing apparatus suitable for these purposes must be used. Suitable respiratory protection apparatus: Filtering Half-face mask (DIN EN 149), e.g. FFA P / FFP3.

Environmental exposure controls

Do not allow to enter into surface water or drains.

Revision date:
22.01.2018**Bizol Brake Fluid DOT 4**

Page 6 of 10

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	yellowish
Odour:	characteristic

pH-Value (at 20 °C):	7,0 - 11,5
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Changes in the physical state

	Test method
Melting point:	not determined
Initial boiling point and boiling range:	> 230 °C
Pour point:	not determined
Flash point:	> 100 °C EN ISO 2719
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined
Decomposition temperature:	No information available.
Vapour pressure:	not determined
Density (at 20 °C):	1,07 g/cm ³
Water solubility:	completely miscible
Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic: (at 20 °C)	5 - 10 mm ² /s
Flow time:	not determined
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

No information available.

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

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

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

Based on available data, the classification criteria are not met.

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 7 of 10

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
111-46-6	2,2' -oxybisethanol				
	oral	ATE 500 mg/kg			
	dermal	LD50 11890 mg/kg	Rabbit		
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione				
	oral	LD50 2900 mg/kg	Rat	OECD 423	
67-56-1	methanol				
	oral	ATE 100 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalative vapour	ATE 3 mg/l			
	inhalative aerosol	ATE 0,5 mg/l			
128-37-0	2,6-di-tert-butyl-p-cresol				
	oral	LD50 >2930,0 mg/kg	Rat		
	dermal	LD50 >2000,0 mg/kg	Rabbit		

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (dihydro-3-(tetrapropenyl)furan-2,5-dione)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience
Other observations

Keeping to the general worker's protection rules and the industrial hygienics, there is no risk in handling this product through the personnel.

SECTION 12: Ecological information
12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione					
	Acute algae toxicity	ErC50 110 mg/l	96 h	Selenastrum capricornutum		

12.2. Persistence and degradability

There are no data available on the mixture itself.

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 8 of 10

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-46-6	2,2' -oxybisethanol	-1,98 (25°C)
26544-38-7	dihydro-3-(tetrapropenyl)furan-2,5-dione	>=4,39
128-37-0	2,6-di-tert-butyl-p-cresol	5,10

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.

Waste disposal number of waste from residues/unused products

160113 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); brake fluids; hazardous waste

Waste disposal number of used product

150202 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances; hazardous waste

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Consult the appropriate local waste disposal expert about waste disposal.

SECTION 14: Transport information

Land transport (ADR/RID)

- | | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

- | | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |
| Marine pollutant: | NO |

Air transport (ICAO-TI/IATA-DGR)

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 9 of 10

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No data available

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

No data available

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 0 %

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,9,15.

Abbreviations and acronyms

ADR: Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations concerning the International Carriage of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 CAS: Chemical Abstracts Service (a division of the American Chemical Society)
 DNEL/DMEL: Derived No-Effect Level / Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 WEL (UK): Workplace Exposure Limits
 TWA (EC): Time-Weighted Average
 STEL (EC): Short Term Exposure Limit
 ATE: Acute Toxicity Estimate
 LD50: Lethal Dose, 50% (median lethal dose)
 LC50: Lethal Concentration, 50% (median lethal concentration)
 EC50: half maximal Effective Concentration
 ErC50: EC50 in terms of reduction of growth rate
 VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Eye Irrit. 2; H319	On basis of test data
Skin Sens. 1; H317	On basis of test data

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H311 Toxic in contact with skin.

Revision date:
22.01.2018

Bizol Brake Fluid DOT 4

Page 10 of 10

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

Safety Data Sheet according to COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)