



THE ORIGINAL BRITISH MOTOR OIL SINCE 1899

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.
Issue date: 17/04/2025 Revision date: 17/04/2025 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Duckhams Brake & Clutch Fluid DOT 4
UFI : PE00-E039-C00U-Q02V
Product code : UKDOT4
Type of product : Hydraulic Fluids
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Intended for general public
Main use category : Professional use, Consumer use
Use of the substance/mixture : Hydraulic fluids and additives
Function or use category : Hydraulic fluids and additives

Title	Life cycle stage	Use descriptors
General industrial use of lubricants and greases in vehicles or machinery. Includes filling and draining of containers and enclosed machinery (including engines)	Industrial, Professional, Consumer	SU3, PC17, PC24, PROC1, ERC4, ERC7

Full text of use descriptors: see section 16

1.3. Details of the supplier of the safety data sheet

Supplier

Alexander Duckham & Co., Ltd
1 Merchants Place
River Street
BL2 1BX Bolton, Greater Manchester
United Kingdom
T +44(0) 1204 589720
technical@duckhams.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0) 1204 589720
(09:00-17:00 GMT)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
Reproductive toxicity, Category 2 H361

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

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes serious eye irritation.

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Hazard statements (CLP)

: H319 - Causes serious eye irritation.
H361 - Suspected of damaging the unborn child. (if swallowed).

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.
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+P313 - If eye irritation persists: Get medical advice/attention.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE, a doctor.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Child-resistant fastening

: Not applicable

Tactile warning

: Applicable

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	CAS-No.: 30989-05-0 EC-No.: 250-418-4 REACH-no: 01-2119462824-33	$\geq 10 - < 50$	Repr. 2, H361d
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	CAS-No.: 143-22-6 EC-No.: 205-592-6 EC Index-No.: 603-183-00-0 REACH-no: 01-2119531322-53	$\geq 10 - < 30$	Eye Dam. 1, H318
Butyl Polyglycol	CAS-No.: 9004-77-7 EC-No.: 500-012-0 REACH-no: 01-2119475115-41	$\geq 5 - < 30$	Eye Irrit. 2, H319
2,2'-OXYBISETHANOL substance with national workplace exposure limit(s) (GB)	CAS-No.: 111-46-6 EC-No.: 203-872-2 EC Index-No.: 603-140-00-6 REACH-no: 01-2119457857-21	< 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight)

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(2-butoxyethoxy)ethanol substance with national workplace exposure limit(s) (GB, NO); substance with a Community workplace exposure limit	CAS-No.: 112-34-5 EC-No.: 203-961-6 EC Index-No.: 603-096-00-8 REACH-no: 01-2119475104-44	< 5	Eye Irrit. 2, H319
2-(2-METHOXYETHOXY)ETHANOL substance with national workplace exposure limit(s) (GB, NO); substance with a Community workplace exposure limit	CAS-No.: 111-77-3 EC-No.: 203-906-6 EC Index-No.: 603-107-00-6 REACH-no: 01-2119475100-52	< 5	Repr. 2, H361d

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	CAS-No.: 143-22-6 EC-No.: 205-592-6 EC Index-No.: 603-183-00-0 REACH-no: 01-2119531322-53	(20 ≤ C < 30) Eye Irrit. 2; H319 (30 ≤ C ≤ 100) Eye Dam. 1; H318
2-(2-METHOXYETHOXY)ETHANOL	CAS-No.: 111-77-3 EC-No.: 203-906-6 EC Index-No.: 603-107-00-6 REACH-no: 01-2119475100-52	(3 ≤ C ≤ 100) Repr. 1B; H360D

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Drink plenty of water. If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material. If medical attention is delayed, give adults 90-120 ml hard liquor such as 40% v/v spirits. Give children proportionately less at a rate of 2ml/kg body weight.

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

Symptoms/effects after eye contact	: Eye irritation.
------------------------------------	-------------------

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
------------------------------	--

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain large spillage with sand or earth.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Storage temperature : 15 – 30 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

2-(2-butoxyethoxy)ethanol (112-34-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-(2-Butoxyethoxy)ethanol
IOEL TWA	67.5 mg/m ³
	10 ppm
IOEL STEL	101.2 mg/m ³
	15 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-(2-Butoxyethoxy)ethanol
WEL TWA (OEL TWA)	67.5 mg/m ³
	10 ppm
WEL STEL (OEL STEL)	101.2 mg/m ³
	15 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
2,2'-OXYBISETHANOL (111-46-6)	
United Kingdom - Occupational Exposure Limits	
Local name	2,2'-Oxydiethanol
WEL TWA (OEL TWA)	101 mg/m ³
	23 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
2-(2-METHOXYETHOXY)ETHANOL (111-77-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-(2-Methoxyethoxy)ethanol
IOEL TWA	50.1 mg/m ³
	10 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-(2-Methoxyethoxy) ethanol
WEL TWA (OEL TWA)	50.1 mg/m ³
	10 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	0.3		EN 374-2, EN 374-3, EN 388
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.2		EN 374-2, EN 374-3, EN 388

Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber.
Appearance	: Clear liquid.
Odour	: Not available
Odour threshold	: Not available
Melting point	: ≥ 50 °C
Freezing point	: Not available
Boiling point	: ≥ 260 °C
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C PMCC
Auto-ignition temperature	: ≥ 280
Decomposition temperature	: 300 °C
pH	: 7 – 10.5
Viscosity, kinematic @ 40°C	: Not available
Solubility	: Soluble in water.

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 1.5
Vapour pressure	: 1 mbar
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.02 – 1.07
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 dermal rabbit	2764 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 2090 - 3645
--------------------	--

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rabbit	3540 mg/kg bodyweight Animal: rabbit, Animal sex: male, Remarks on results: other., 95% CL: 1050 - 11800

2-(2-METHOXYETHOXY)ETHANOL (111-77-3)

LD50 dermal rabbit	9404 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 6696 - 13212
--------------------	---

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Butyl Polyglycol (9004-77-7)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	3540 mg/kg bodyweight Animal: rabbit, Animal sex: male, 95% CL: 1050 - 11800
Skin corrosion/irritation	: Not classified pH: 7 – 10.5
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
pH	7
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7 – 10.5
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
pH	7
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
2,2'-OXYBISETHANOL (111-46-6)	
NOAEL (chronic, oral, animal/male, 2 years)	1210 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (chronic, oral, animal/female, 2 years)	1160 mg/kg bodyweight Animal: rat, Animal sex: female
Reproductive toxicity	: Suspected of damaging the unborn child. (if swallowed).
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
2-(2-butoxyethoxy)ethanol (112-34-5)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
LOAEL (oral, rat, 90 days)	1200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	4000 mg/kg bodyweight Animal: rat
2,2'-OXYBISETHANOL (111-46-6)	
LOAEL (oral, rat, 90 days)	40000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
2-(2-METHOXYETHOXY)ETHANOL (111-77-3)	
LOAEL (oral, rat, 90 days)	1800 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents),

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

2-(2-METHOXYETHOXY)ETHANOL (111-77-3)	
NOAEC (inhalation, rat, vapour, 90 days)	> 1.06 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
Butyl Polyglycol (9004-77-7)	
LOAEL (oral, rat, 90 days)	1200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Aspiration hazard	: Not classified
2-(2-butoxyethoxy)ethanol (112-34-5)	
Viscosity, kinematic @ 40°C	6.794 mm²/s
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
Viscosity, kinematic @ 40°C	9.2 mm²/s
Butyl Polyglycol (9004-77-7)	
Viscosity, kinematic @ 40°C	9.2 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

2-(2-butoxyethoxy)ethanol (112-34-5)	
LC50 - Fish [1]	1300 mg/l <i>Lepomis macrochirus</i>
EC50 - Crustacea [1]	> 100 mg/l <i>Daphnia magna</i>
EC50 96h - Algae [1]	> 100 mg/l <i>Desmodesmus subspicatus</i> (<i>Scenedesmus subspicatus</i>)
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
LC50 - Fish [1]	2200 – 4600 mg/l <i>Leuciscus idus</i>
LC50 - Fish [2]	2400 mg/l <i>Pimephales promelas</i>
EC50 72h - Algae [1]	1589 mg/l <i>Pseudokirchneriella subcapitata</i> (<i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 72h - Algae [2]	3211 mg/l <i>Pseudokirchneriella subcapitata</i> (<i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

2,2'-OXYBISETHANOL (111-46-6)	
LC50 - Fish [1]	75200 mg/l Pimephales promelas
EC50 96h - Algae [1]	6500 – 13000 mg/l Pseudokirchneriella subcapitata (Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	9362 mg/l
NOEC (chronic)	≥ 1000 mg/l Americamysis bahia (Mysidopsis bahia)

2-(2-METHOXYETHOXY)ETHANOL (111-77-3)	
LC50 - Fish [1]	5741 mg/l Pimephales promelas
EC50 - Crustacea [1]	1192 mg/l Daphnia magna
EC50 96h - Algae [1]	> 1000 mg/l Pseudokirchneriella subcapitata (Raphidocelis subcapitata, Selenastrum capricornutum)

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
LC50 - Fish [1]	> 222.2 mg/l Oncorhynchus mykiss (Salmo gairdneri)
LC50 - Fish [2]	> 1010 mg/l Oncorhynchus mykiss (Salmo gairdneri)
EC50 - Crustacea [1]	> 211.2 mg/l Daphnia magna
EC50 - Crustacea [2]	> 960 mg/l Daphnia magna
EC50 72h - Algae [1]	> 224.4 mg/l
EC50 72h - Algae [2]	> 1020 mg/l

Butyl Polyglycol (9004-77-7)	
LC50 - Fish [1]	> 1800 mg/l
EC50 - Crustacea [1]	> 3200 mg/l Daphnia magna
EC50 72h - Algae [1]	391 mg/l Skeletonema costatum

12.2. Persistence and degradability

Duckhams Brake & Clutch Fluid DOT 4	
Persistence and degradability	Product is biodegradable.

2-(2-butoxyethoxy)ethanol (112-34-5)	
Persistence and degradability	Not rapidly degradable

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (143-22-6)	
Persistence and degradability	Not rapidly degradable

2,2'-OXYBISETHANOL (111-46-6)	
Persistence and degradability	Not rapidly degradable

2-(2-METHOXYETHOXY)ETHANOL (111-77-3)	
Persistence and degradability	Not rapidly degradable

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
Persistence and degradability	Not rapidly degradable

Butyl Polyglycol (9004-77-7)	
Persistence and degradability	Not rapidly degradable

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

12.3. Bioaccumulative potential

Duckhams Brake & Clutch Fluid DOT 4

Partition coefficient n-octanol/water (Log Pow)	1.5
---	-----

12.4. Mobility in soil

Duckhams Brake & Clutch Fluid DOT 4

Additional information	soluble in water
------------------------	------------------

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW, EC 2000/532)	: 16 01 13* - brake fluids
HP Code	: HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Abbreviations and acronyms:	
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
H302	Harmful if swallowed.
H318	Causes serious eye damage.

Duckhams Brake & Clutch Fluid DOT 4

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.

Full text of H- and EUH-statements:

H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H361	Suspected of damaging the unborn child. (if swallowed).
H361d	Suspected of damaging the unborn child.

Full text of use descriptors

ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC7	Use of functional fluid at industrial site
PC17	Hydraulic Fluids
PC24	Lubricants, greases, release products
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.