

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 6/30/2016 Revision date: 7/12/2016 Version: 2.0



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

1.1. Product identifier

Product form : Mixture
Product name : Lucas DOT 4 Brake Fluid
Product code : 10827

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Lubricant

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Lucas Oil Products, Inc
302 North Sheridan Street
92880-2067 Corona, California - USA
T (951) 270-0154 - F (951) 270-1902
GHewjill@lucasoil.com - www.LucasOil.com

1.4. Emergency telephone number

Emergency number : (951) 493-1149 (951) 847-5949 7:00A.M. to 5:00P.M. Monday thru Friday

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Specific target organ toxicity — Repeated exposure, Category 2 H373
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

2-(2-(2-butoxyethoxy)ethoxy)ethanol; Diethylene glycol; ethanol, 2-methoxy; Diethanolamine

Hazard statements (CLP) :

H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H373 - May cause damage to organs through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) :

P260 - Do not breathe mist, spray, vapours
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear eye protection, protective gloves
P301+P312 - If swallowed: Call a poison center or doctor
P302+P352 - IF ON SKIN: Wash with plenty of water
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

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

	P314 - Get medical advice/attention if you feel unwell P321 - Specific treatment (see First aid measures on this label) P330 - Rinse mouth P332+P313 - If skin irritation occurs: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
Unknown acute toxicity (CLP: Classification, Labelling, Packaging.) - SDS	: 45.3% of the mixture consists of ingredient(s) of unknown acute oral toxicity 45.3% of the mixture consists of ingredient(s) of unknown acute dermal toxicity 45.3% percent of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity
Unknown hazards to the aquatic environment (CLP)	: Contains 45 % of components with unknown hazards to the aquatic environment

2.3. Other hazards

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(2-(2-butoxyethoxy)ethoxy)ethanol	(CAS No) 143-22-6 (EC no) 205-592-6 (EC index no) 603-183-00-0	40 - 60	Eye Dam. 1, H318
Triethylene Glycol Monomethyl Borate Ester	(CAS No) 71243-41-9	20 - 40	Skin Irrit. 2, H315
Diethylene glycol	(CAS No) 111-46-6 (EC no) 203-872-2 (EC index no) 603-140-00-6 (REACH-no) 01-2119457857-21	20 - 40	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Triethylene glycol	(CAS No) 112-27-6 (EC no) 203-953-2	0 - 5	Not classified
Diethanolamine	(CAS No) 111-42-2 (EC no) 203-868-0 (EC index no) 603-071-00-1	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 2, H373
2,6-Di-tert-Butyl-4-sec-Butylphenol	(CAS No) 17540-75-9 (EC no) 241-533-0	0.2 - 0.4	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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	(20 =<C < 30) Eye Irrit. 2, H319 (C >= 30) Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries	: May cause damage to organs (liver, kidneys, nervous system) through prolonged or repeated exposure (oral).
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

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

Treat symptomatically. Poison.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Small fires: alcohol resistant foam. Carbon dioxide. Dry chemical. Large fires: Water spray. Flood fire with water from a distance.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Flammable vapours heavier than air/can accumulate. Vapours are heavier than air and spread above ground.

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition.

Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapour and mist. Use personal protective equipment as required. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Refer to section 8.2.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Refer to section 8.2.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not allow minor leaks or spills to accumulate on walking surfaces.

Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container.

Other information : Spilled material may present a slipping hazard.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product. Avoid all eye and skin contact and do not breathe vapour and mist. Use personal protective equipment as required. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Hygroscopic.

Incompatible products : Strong acids. Strong bases. Strong oxidizers. zinc. metals.

Heat and ignition sources : Keep away from heat, sparks and flame.

Prohibitions on mixed storage : Incompatible materials.

Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Lubricant.

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethylene glycol (111-46-6)		
Austria	MAK (mg/m ³)	44 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	176 mg/m ³ max. 4x15 min./Schicht
Austria	MAK Short time value (ppm)	40 ppm max. 4x15 min./Schicht
Denmark	Grænseværdie (langvarig) (mg/m ³)	11 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	2.5 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	22 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	5 ppm
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	23 ppm
Lithuania	IPRV (mg/m ³)	45 mg/m ³
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m ³)	90 mg/m ³
Lithuania	TPRV (ppm)	20 ppm
Lithuania	Remark (LT)	O
Poland	NDS (mg/m ³)	10 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	44 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	45 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	90 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	20 ppm
Sweden	Anmärkning (SE)	H
United Kingdom	WEL TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (ppm)	23 ppm
Switzerland	VME (mg/m ³)	44 mg/m ³
Switzerland	VME (ppm)	10 ppm
Switzerland	VLE (mg/m ³)	176 mg/m ³
Switzerland	VLE (ppm)	40 ppm
Triethylene glycol (112-27-6)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1000 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	2000 mg/m ³
Germany	Remark (TRGS 900)	(gemessen als einatembarer Aerosolanteil)
Switzerland	VME (mg/m ³)	1000 mg/m ³
Switzerland	VLE (mg/m ³)	2000 mg/m ³
Switzerland	Remark (CH)	(einatembarer Staub)
Diethanolamine (111-42-2)		
Austria	MAK (mg/m ³)	2 mg/m ³ (H,Sh)
Austria	MAK (ppm)	0.46 ppm (H,Sh)
Austria	MAK Short time value (mg/m ³)	4 mg/m ³ max. 4x15 min./Schicht, (H,Sh)
Austria	MAK Short time value (ppm)	0.92 ppm max. 4x15 min./Schicht, (H,Sh)
Belgium	Limit value (mg/m ³)	2 mg/m ³
Belgium	Limit value (ppm)	0.46 ppm
Belgium	Remark (BE)	D
Czech Republic	Expoziční limity (PEL) (mg/m ³)	5 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	1.16 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	10 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	2.32 ppm
Czech Republic	Remark (CZ)	I,P
Denmark	Grænseværdie (langvarig) (mg/m ³)	2 mg/m ³

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

Diethanolamine (111-42-2)		
Denmark	Grænseværdie (langvarig) (ppm)	0.46 ppm
Denmark	Grænseværdie (kortvarig) (mg/m ³)	4 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	0.92 ppm
Denmark	Anmærkninger (DK)	H
Finland	HTP-arvo (8h) (mg/m ³)	2 mg/m ³
Finland	HTP-arvo (8h) (ppm)	0.46 ppm
Finland	Huomautus (FI)	iho
France	VME (mg/m ³)	15 mg/m ³
France	VME (ppm)	3 ppm
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³
Ireland	Notes (IE)	(Inhalable Fraction and Vapour)
Lithuania	IPRV (mg/m ³)	15 mg/m ³
Lithuania	IPRV (ppm)	3 ppm
Lithuania	TPRV (mg/m ³)	30 mg/m ³
Lithuania	TPRV (ppm)	6 ppm
Lithuania	Remark (LT)	O
Poland	NDS (mg/m ³)	9 mg/m ³
Spain	VLA-ED (mg/m ³)	2 mg/m ³
Spain	VLA-ED (ppm)	0.46 ppm
Spain	Notes	vía dérmica,f
Sweden	nivågränsvärde (NVG) (mg/m ³)	15 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	3 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	30 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	6 ppm
Sweden	Anmärkning (SE)	H
United Kingdom	WEL TWA (mg/m ³)	13 mg/m ³
United Kingdom	WEL TWA (ppm)	3 ppm
United Kingdom	Remark (WEL)	The UK Advisory Committee on Toxic Substances has expressed concern that, for these OELs, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.
Norway	Grænseverdier (AN) (mg/m ³)	15 mg/m ³
Norway	Grænseverdier (AN) (ppm)	3 ppm
Switzerland	VME (mg/m ³)	1 mg/m ³
Switzerland	VLE (mg/m ³)	1 mg/m ³
Switzerland	Remark (CH)	(inhalable aerosol)

8.2. Exposure controls

Appropriate engineering controls : Avoid splashing. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection:

Wear suitable gloves resistant to chemical penetration. nitrile rubber gloves. Viton. Butyl rubber. Fluoroelastomer (FKM) . EN374

Eye protection:

Chemical goggles or safety glasses. Use splash goggles when eye contact due to splashing is possible. If there is a risk of liquid being splashed : Face shield. EN166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

In case of inadequate ventilation wear respiratory protection. Full face respirator. Supplied air respirator if working in a confined area

Environmental exposure controls : Prevent leakage or spillage. Prevent contaminated water run-off.

Other information : Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: light yellow.
Odour	: mild. Sweet.
Odour threshold	: No data available
pH	: 7 - 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < -50 °C
Freezing point	: No data available
Boiling point	: > 232 °C
Flash point	: 121 °C
Auto-ignition temperature	: 310 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.09 hPa @ 20 °C
Relative vapour density at 20 °C	: > 5
Relative density	: No data available
Density	: 0.00106 g/cm ³ @ 15.6 °C
Solubility	: Miscible with water.
Log Pow	: No data available
Viscosity, kinematic	: 2 mm ² /s @ 100 °C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers. zinc. metals.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Formaldehyde. Formic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	876.927 mg/kg bodyweight
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2-(2-(2-butoxyethoxy)ethoxy)ethanol (143-22-6)

LD50 oral rat	5170 mg/kg
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Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

2-(2-(2-butoxyethoxy)ethoxy)ethanol (143-22-6)	
LD50 dermal rabbit	3540 mg/kg
Diethylene glycol (111-46-6)	
LD50 dermal rat	13300 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/l/4h
Triethylene glycol (112-27-6)	
LD50 oral rat	> 2000 mg/kg
LD50 oral	> 16 ml/kg
LD50 dermal rabbit	non-toxic
LC50 inhalation rat (mg/l)	5.14 mg/kg
Diethanolamine (111-42-2)	
LD50 oral rat	1100 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Diethanolamine (111-42-2)	
LOAEL (oral, rat, 90 days)	14 mg/kg bodyweight/day 14 mg/kg female; 25 mg/kg male
LOAEL (dermal, rat/rabbit, 90 days)	mg/kg bodyweight/day
Aspiration hazard	: Not classified
Lucas DOT 4 Brake Fluid	
Viscosity, kinematic	2 mm ² /s @ 100 °C

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Lucas DOT 4 Brake Fluid	
LC50 fish 1	> 590 mg/l 96 h
EC50 Daphnia 1	> 10 mg/l 48 h
Diethylene glycol (111-46-6)	
LC50 fish 1	75200 mg/l
EC50 Daphnia 1	> 10000 mg/l
Triethylene glycol (112-27-6)	
LC50 fish 1	> 10000 mg/l
EC50 Daphnia 1	> 10000 mg/l
Diethanolamine (111-42-2)	
LC50 fish 1	1460 mg/l 96 h
EC50 Daphnia 1	30.1 mg/l 48 h
ErC50 (algae)	2.2 mg/l 96 h

12.2. Persistence and degradability

Lucas DOT 4 Brake Fluid	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
Diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable.
Triethylene glycol (112-27-6)	
Persistence and degradability	Readily biodegradable.
Diethanolamine (111-42-2)	
Persistence and degradability	Readily biodegradable.

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

12.3. Bioaccumulative potential

Lucas DOT 4 Brake Fluid	
Bioaccumulative potential	Not expected to bioaccumulate.
Diethylene glycol (111-46-6)	
Bioconcentration factor (BCF REACH)	100
Log Pow	-1.98
Bioaccumulative potential	Not expected to bioaccumulate.
Triethylene glycol (112-27-6)	
BCF fish 1	<=
Log Pow	-1.75 @ 25 °C
Diethanolamine (111-42-2)	
Log Pow	-1.71
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

Lucas DOT 4 Brake Fluid	
Ecology - soil	Mobile.

12.5. Results of PBT and vPvB assessment

Lucas DOT 4 Brake Fluid	
PBT: not yet assessed	
vPvB: not yet assessed	
Component	
Diethylene glycol (111-46-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.
European List of Waste (LoW) code : For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : Not regulated.
UN-No. (IMDG) : Not regulated.
UN-No. (IATA) : Not regulated.
UN-No. (ADN) : Not regulated.
UN-No. (RID) : Not regulated.

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated.
Proper Shipping Name (IMDG) : Not regulated.
Proper Shipping Name (IATA) : Not regulated.
Proper Shipping Name (ADN) : Not regulated.
Proper Shipping Name (RID) : Not regulated.

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated.

IMDG

Transport hazard class(es) (IMDG) : Not regulated.

IATA

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

Transport hazard class(es) (IATA) : Not regulated.

ADN

Transport hazard class(es) (ADN) : Not regulated.

RID

Transport hazard class(es) (RID) : Not regulated.

14.4. Packing group

Packing group (ADR) : Not regulated.

Packing group (IMDG) : Not regulated.

Packing group (IATA) : Not regulated.

Packing group (ADN) : Not regulated.

Packing group (RID) : Not regulated.

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not regulated.

- Transport by sea

Not regulated.

- Air transport

Not regulated.

- Inland waterway transport

Not regulated.

- Rail transport

Not regulated.

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Composition/information on ingredients.

Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	European List of Waste (LoW) code
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	PBT: Persistent, Bioaccumulative, Toxic
	TWA: Time Weighted Average
vPvB	Very Persistent and Very Bioaccumulative

Data sources : European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Manufacturer Information.
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
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
H412	Harmful to aquatic life with long lasting effects

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Oral)	H302	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

Lucas DOT 4 Brake Fluid

Safety Data Sheet

according to Regulation (EU) 2015/830

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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