



SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK
REACH Regulation SI 2019/758

MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

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

1.1 Product identifier

Product name : MOTO BRAKE FLUID DOT 4
Product code : 32050
Product description : Not available.
Product type : Liquid.
Other means of identification : Not available.

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

Identified uses

Brake fluids.

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

TotalEnergies Lubrifiants
562 Avenue du Parc de L'île
92029 Nanterre Cedex FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71
rm.msds-lubs@totalenergies.com

TotalEnergies Marketing UK Limited
10 Upper Bank Street (19th floor)
Canary Wharf,
London E14 5BF
UNITED KINGDOM
Tel: +44 (0)20 7339 8000
Fax: +44 (0)20 7339 8033
rm.gb-msds@totalenergies.com

H.S.E

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : National Poisons Information Service (NPIS): 111

Supplier

Telephone number : Emergency telephone: +44 1235 239670



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : No signal word.

Hazard statements : No hazard statement.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Safety data sheet available on request.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1$ %.

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

Other hazards which do not result in classification : Hazard of slipping on spilt product.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	REACH #: 01-2119531322-53 EC: 907-996-4	≥ 5 - ≤ 10	Eye Dam. 1, H318	[1]
diethylene glycol	REACH #: 01-2119457857-21 EC: 203-872-2 CAS: 111-46-6	≥ 5 - ≤ 10	Acute Tox. 4, H302	[1] [2]
2-[2-(2-butoxyethoxy)ethoxy]	REACH #:	≤ 5	Eye Dam. 1, H318	[1]



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 3: Composition/information on ingredients

ethanol	01-2119475107-38 EC: 205-592-6 CAS: 143-22-6 Index: 603-183-00-0		See Section 16 for the full text of the H statements declared above.	
---------	---	--	--	--

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : carbon monoxide
carbon dioxide
nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 6: Accidental release measures

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
See Section 10 for incompatible materials before handling or use.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/substance	Exposure limit values
diethylene glycol	EH40/2005 WELs (United Kingdom (UK), 1/2020) TWA 8 hours: 101 mg/m ³ . TWA 8 hours: 23 ppm.

Biological Limit Values (BLV)

No exposure indices known.

- Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Advisory OEL DNELs/DMELs** : No known significant effects or critical hazards.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 8: Exposure controls/personal protection

Product/substance	Result
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	DNEL - General population - Long term - Oral 2.5 mg/kg bw/day <u>Effects:</u> Systemic DNEL - General population - Long term - Dermal 25 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Long term - Dermal 50 mg/kg bw/day <u>Effects:</u> Systemic DNEL - General population - Long term - Inhalation 117 mg/m ³ <u>Effects:</u> Systemic DNEL - Workers - Long term - Inhalation 195 mg/m ³ <u>Effects:</u> Systemic
2,2'-oxydiethanol	DNEL - Workers - Long term - Inhalation 44 mg/m ³ <u>Effects:</u> Systemic DNEL - General population - Long term - Inhalation 12 mg/m ³ <u>Effects:</u> Local DNEL - General population - Long term - Inhalation 12 mg/m ³ <u>Effects:</u> Systemic DNEL - General population - Long term - Dermal 21 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Long term - Dermal 43 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Long term - Inhalation 60 mg/m ³ <u>Effects:</u> Local
2-[2-(2-butoxyethoxy)ethoxy]ethanol	DNEL - General population - Long term - Dermal 2.823 mg/cm ² <u>Effects:</u> Local DNEL - General population - Short term - Dermal 4.173 mg/cm ² <u>Effects:</u> Local DNEL - Workers - Long term - Dermal 5.65 mg/cm ² <u>Effects:</u> Local



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 8: Exposure controls/personal protection

DNEL - Workers - Short term - Dermal

8.35 mg/cm²

Effects: Local

DNEL - General population - Long term - Inhalation

12 mg/m³

Effects: Systemic

DNEL - General population - Long term - Oral

12.5 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

15.252 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

24 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

30.5 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

48 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

48 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

96 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

96 mg/m³

Effects: Systemic

DNEL - General population - Short term - Oral

103.4 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Dermal

200 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Dermal

400 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

502.5 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 8: Exposure controls/personal protection

1005 mg/kg bw/day
Effects: Systemic

PNECs

Product/substance	Result
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	Fresh water 2 mg/l Marine water 0.2 mg/l Fresh water sediment 6.6 mg/kg dwt Marine water sediment 0.66 mg/kg dwt Soil 0.46 mg/kg dwt Sewage Treatment Plant 500 mg/l Secondary Poisoning 111 mg/kg
2,2'-oxydiethanol	Fresh water 10 mg/l Marine water 1 mg/l Fresh water sediment 20.9 mg/kg dwt Soil 1.53 mg/kg dwt Sewage Treatment Plant 199.5 mg/l Marine water sediment 2.09 mg/kg dwt
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Fresh water 1.5 to 100 mg/l Marine water 0.15 to 142.57 mg/l Fresh water sediment 5.77 to 11.115 mg/kg dwt Marine water sediment 0.577 to 1.1115 mg/kg dwt



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 8: Exposure controls/personal protection

Soil

0.35 to 11.51 mg/kg dwt

Sewage Treatment Plant

199.5 to 200 mg/l

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : In case of contact through splashing: safety glasses with side-shields, EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

nitrile rubber

butyl rubber

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Non-skid safety shoes or boots

Respiratory protection : None under normal use conditions. If these are not sufficient to maintain exposure below the OEL, suitable respiratory protection must be worn (Type A/P1).

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. [Clear]

Colour : Yellow. Amber.

Odour : Characteristic.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 9: Physical and chemical properties

Melting point/freezing point	: Not applicable.
Initial boiling point and boiling range	: >260°C (>500°F)
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Flash point	: Open cup: 134°C (273.2°F)
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not applicable.
pH	: 7.5 to 10 [Conc. (% w/w): 50%]
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.

Solubility(ies)

Media	Result
water	Soluble

Miscible with water	: Yes.
Partition coefficient: n-octanol/ water	: Not available.
Vapour pressure	: <0.01 kPa (<0.075 mm Hg)
Relative density	: Not applicable.
Density	: 1.05 to 1.07 g/cm ³ [20°C (68°F)]
Vapour density	: Not available.
Particle characteristics	
Median particle size	: Not applicable.

9.2 Other information

Pour point	: -68°C (-90.4°F)
-------------------	-------------------

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: Strong oxidising agents
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Result
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	Rat - Oral - LD50 5170 mg/kg
	Rabbit - Dermal - LD50 3540 mg/kg
2,2'-oxydiethanol	Rabbit - Dermal - LD50 13300 mg/kg
	Rat - Oral - LD50 500 mg/kg TEPA and OECD
	Rabbit - Dermal - LD50 11890 mg/kg
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Rat - Oral - LD50 5300 mg/kg Toxic effects: Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Behavioral - Altered sleep time (including change in righting reflex)
	Rabbit - Dermal - LD50 3480 mg/kg

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MOTO BRAKE FLUID DOT 4	5050.5	N/A	N/A	N/A	N/A
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	5170	3540	N/A	N/A	N/A
diethylene glycol	500	11890	N/A	N/A	N/A
2-[2-(2-butoxyethoxy)ethoxy]ethanol	5300	3480	N/A	N/A	5.1

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

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory corrosion/irritation

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

Respiratory or skin sensitization

Skin

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



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 11: Toxicological information

Respiratory

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

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

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Product/substance	Result
-------------------	--------



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 11: Toxicological information

2,2'-oxydiethanol

Sub-acute - Rat - Male, Female - Oral - NOAEL

OECD [Repeated Dose 28-day Oral Toxicity Study in Rodents]
936 mg/kg

Sub-chronic - Rat - Male, Female - Oral - NOAEL

300 mg/kg

- General** : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/substance	Result
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	Chronic - NOEC OECD 201 Algae - <i>Scenedesmus capricornutum</i> 450 mg/l [72 hours] <u>Effect</u>: (growth rate) Acute - LC50 OECD 203 Fish - <i>Scophthalmus maximus</i> >1800 mg/l [96 hours] Acute - EC50 OECD 202 Crustaceans - <i>Daphnia magna</i> >3200 mg/l [48 hours] <u>Effect</u>: Mobility Acute - EC50 OECD 201 Algae - <i>Scenedesmus capricornutum</i> 2490 mg/l [72 hours] <u>Effect</u>: (growth rate) Chronic - NOEC OECD 211 Crustaceans - <i>Daphnia magna</i> >100 mg/l [21 days] <u>Effect</u>: Reproduction



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 12: Ecological information

2,2'-oxydiethanol	Acute - LC50 - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> <u>Age</u>: 34 days; <u>Size</u>: 19.1 mm; <u>Weight</u>: 0.102 g 75.2 g/l [96 hours] <u>Effect</u>: Mortality Acute - EC50 Crustaceans - <i>Daphnia magna</i> 62600 mg/l [48 hours] <u>Effect</u>: Mobility Acute - EC50 Algae >100 mg/l [72 hours] <u>Effect</u>: (growth rate) Chronic - NOEC Algae >100 mg/l [72 hours] <u>Effect</u>: (growth rate)
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Acute - EC50 Algae - <i>Desmodesmus subspicatus</i> 500 mg/l [72 hours] Acute - LC50 Fish 2182 mg/l [96 hours] Acute - EC50 Daphnia - <i>Daphnia magna</i> 500 mg/l [48 hours]

12.2 Persistence and degradability

Product/substance	Result
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	OECD 301D 76% [28 days] - Readily
2,2'-oxydiethanol	OECD 301B 75% [28 days] - Readily

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	-	-	Readily
2,2'-oxydiethanol	-	-	Readily
2-[2-(2-butoxyethoxy)ethoxy]ethanol	-	-	Readily



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 12: Ecological information

12.3 Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy) ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	0.51	-	Low
2,2'-oxydiethanol	-1.98	100	Low
2-[2-(2-butoxyethoxy)ethoxy] ethanol	0.51	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/substance	logK _{oc}	K _{oc}
diethylene glycol	0.61	4.08583
2-[2-(2-butoxyethoxy)ethoxy]ethanol	2.3	201.715

Results of PMT and vPvM assessment

Product/substance	PMT	P	M	T	vPvM	vP	vM
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy) ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	No	No	No	No	No	No	No
diethylene glycol	No	No	Yes	No	No	No	Yes
2-[2-(2-butoxyethoxy)ethoxy] ethanol	No	No	Yes	No	No	No	No

Mobility : Not available.

Mobility in soil : Given its physical and chemical characteristics, the product generally shows low soil mobility Loss by evaporation is limited Soluble in water

12.5 Results of PBT and vPvB assessment

Product/substance	PBT	P	B	T	vPvB	vP	vB
Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy) ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	No	No	No	No	No	No	No
2,2'-oxydiethanol	No	No	No	No	No	No	No
2-[2-(2-butoxyethoxy)ethoxy] ethanol	No	No	No	No	No	No	No

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 12: Ecological information

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ICAO/IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 14: Transport information

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 15: Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AIIC)	: All components are listed or exempted.
Canada inventory	: At least one component is not listed in DSL but all such components are listed in NDSL.
China inventory (IECSC)	: All components are listed or exempted.
Europe inventory	: All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : Not determined.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: At least one component is not listed.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: At least one component is not listed.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

15.2 Chemical safety assessment : Risk management measures and safety conditions of use are included in the relevant sections of the SDS

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ACGIH = American Conference of Governmental Industrial Hygienists
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- DNEL = Derived No Effect Level
- DMEL = Derived Minimal Effect Level
- DMSO = Dimethyl Sulfoxide
- EC50 = Half maximal effective concentration
- EL50 = median Effective Loading
- EUH statement = CLP-specific Hazard statement
- HSE = Health, Safety and Environment
- IC50 = Half maximal inhibitory concentration
- IDHL = Immediately dangerous to life or health
- LC50 = Median lethal concentration
- LD50 = Median lethal dose
- LL50 = median Lethal Loading
- LogKow = logarithm of the octanol/water partition coefficient
- N/A = Not available
- NIOSH = National Institute of Occupational Safety and Health
- NOAEL = No Observed Adverse Effect Level



MOTO BRAKE FLUID DOT 4

SDS no. 32050
:

SECTION 16: Other information

NOEC No Observed Effect Concentration
NOEL = No Observed Effect Level
NOELR = No observed Effect Loading Rate
OECD = Organisation for Economic Co-operation and Development
OEL = Occupational Exposure Limit
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
QSAR = Quantitative Structure–Activity Relationship
REL = Recommended Exposure Limit
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value
TWA = Time Weight Average
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative
Unique Formula Identifier (UFI)
UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material

Procedure used to derive the classification

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H318	Causes serious eye damage.

Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

Date of printing : 2025/02/20

Date of issue/ Date of revision : 2025/02/20

Date of previous issue : 2025/02/18

Version : 5

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.