

## **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 1/18

Replaced revision:3 (Printed on: 14/11/2022)

# Safety Data Sheet According to Annex II to REACH - Regulation (EU) 2020/878

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

**VALEO BRAKE AND CLUTCH FLUID DOT 3** Product name

UFI: 25F0-U0K0-D00P-6UQY

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

Intended use **BRAKE FLUID DOT 3 (for B2C)** 

Identified Uses	Industrial	Professional	Consumer
Functional Fluids	❤	✓	✓
1.3. Details of the supplier of the safety data sheet Name Full address District and Country	t Valeo Service Africa & Over 70, rue Pleyel 93285 Saint-Denis Cedex France	seas	
	Tel. +33 (0)1 49 45 32 32		
e-mail address of the competent person responsible for the Safety Data Sheet	alert.export@valeo.com		
1.4. Emergency telephone number			
For urgent inquiries refer to	MA: 212 80-1000180 TN: 71 335 500 DZ: 3016 IL: 04-7771900 ZA: 27861555777 AU: 131126 NZ: 0800 764 766		

FR: 01 40 05 48 48 CI: 185 SN: 15

NC: 01 40 05 48 48

#### **SECTION 2. Hazards identification**

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Acute toxicity, category 4 H302 Harmful if swallowed. H318 Serious eye damage, category 1 Causes serious eye damage.



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 2/18

Replaced revision:3 (Printed on: 14/11/2022)

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:





Signal words: Danger

Hazard statements:

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Precautionary statements:

**P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

**P280** Wear eye protection / face protection.

P310 Immediately call a POISON CENTER / doctor / . . .

Contains: Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

DIETHYLENE GLYCOL

#### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

#### **SECTION 3. Composition/information on ingredients**

#### 3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)



## **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 3/18

Replaced revision:3 (Printed on: 14/11/2022)

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

INDEX - 45 ≤ x < 70 Eye Dam. 1 H318

EC 907-996-4 Eye Dam. 1 H318: ≥ 30%, Eye Irrit. 2 H319: ≥ 20% - < 30%

CAS -

REACH Reg. 01-2119475115-41-

XXXX

**DIETHYLENE GLYCOL** 

INDEX 603-140-00-6  $10 \le x < 30$  Acute Tox. 4 H302 EC 203-872-2 ATE Oral: 500 mg/kg

CAS 111-46-6

REACH Reg. 01-2119457857-21-

XXXX

TRIETHYLENE GLYCOL

INDEX -  $5 \le x < 10$  Substance with a community workplace exposure limit.

EC 203-953-2 CAS 112-27-6

REACH Reg. 01-2119438366-35-

xxxx

2,6-di-tert-butyl-p-cresol

INDEX -  $0.1 \le x < 0.2$  Aquatic Chronic 1 H410 M=1

EC 204-881-4 CAS 128-37-0

REACH Reg. 01-2119480433-40-

XXXX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

#### **SECTION 4. First aid measures**

#### 4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical

INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

#### Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.



## **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 4/18

Replaced revision:3 (Printed on: 14/11/2022)

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

Immediately call a POISON CENTER / doctor / . . .

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

#### **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

#### 5.3. Advice for firefighters

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

#### **SECTION 6. Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections



## **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 5/18

Replaced revision:3 (Printed on: 14/11/2022)

Any information on personal protection and disposal is given in sections 8 and 13.

## **SECTION 7. Handling and storage**

#### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

#### **SECTION 8. Exposure controls/personal protection**

#### 8.1. Control parameters

#### Regulatory references:

DEU	Deutschland	Foreshungaramainashaft MAIX und DAT Warte Liste 2022 Cländing Canadakammiasian mus Duiftung
DEO	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
EST	Eesti	Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 21.12.2022, 14]
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 "cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai"
		patvirtinimo
LVA	Latvija	Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības
		saskarē ar ķīmiskajām vielām darba vietās" (prot. Nr. 32 18. §; prot. Nr. 1 22. §)
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády
		Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s
		expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2023

	Reaction mass of 2-	(2-(	(2-butoxyethox	y)ethoxy	y)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	
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Predicted no-effect concentration - PNEC			
Normal value in fresh water	2	mg/l	
Normal value in marine water	0,2	mg/l	
Normal value for fresh water sediment	6,6	mg/kg	
Normal value for marine water sediment	0,66	mg/kg	
Normal value for water, intermittent release	18	mg/l	
Normal value of STP microorganisms	500	mg/l	
Normal value for the food chain (secondary poisoning)	333	mg/kg	
Normal value for the terrestrial compartment	0,46	mg/kg	

#### Health - Derived no-effect level - DNEL / DMEL



# **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025 Printed on 04/08/2025

Page n. 6/18

Replaced revision:3 (Printed on: 14/11/2022)

		cts on sumers				Effects on workers			
Route of exposure		te local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral					12,5 mg/kg bw/d		Systemic		Systemic
Inhalation					117 mg/m3				195 mg/m3
Skin					125 mg/kg bw/d				208 mg/kg bw/d
DIETHYLENE GLYO									
Туре	Country	TWA/8	h		STEL/15min		Remarks Observa		
		mg/m3		ppm	mg/m3	ppm	Observa	lions	
AGW	DEU	44		10	176	40			
MAK	DEU	44		10	176	40			
TLV	DNK	11		2,5					
TLV	EST	45		10	90	20	SKIN		
RD	LTU	45		10	90	20	SKIN		
RV	LVA	10							
NGV/KGV	SWE	45		10	90	20	SKIN		
NPEL	SVK	44		10	176				
WEL	GBR	101		23					
Predicted no-effect con	centration - PNE	C							
Normal value in fresh w	/ater				10	mg	/I		
Normal value in marine	water				1	mg	/I		
Normal value for fresh	water sediment				20,9	mg	/kg		
Normal value for marine	e water sedimen	t			2,09	mg	/kg		
Normal value for water,	intermittent rele	ase			10	mg	/I		
Normal value of STP m	icroorganisms				199,5	mg	/I		
Normal value for the ter	rrestrial comparti	ment			1,53	mg	/kg		
Health - Derived no	-effect level -	DNEL / DI	MEL						
		cts on sumers				Effects on workers			
Route of exposure		te local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				12 mg/m3	12 mg/m3		·	60 mg/m3	44 mg/m3
Skin				VND	21 mg/kg/d			VND	43 mg/kg/d
TRIETHYLENE GLY Threshold Limit Va									
Туре	Country	TWA/8	h		STEL/15min		Remarks		
		mg/m3		ppm	mg/m3	ppm	Observa	tions	
OEL	EU	1000							
Predicted no-effect con	centration - PNE	С							
Normal value in fresh w	/ater				10	mg	/I		
Normal value in marine					1	mg			
Normal value for fresh					46		/kg		
Normal value of STP m						9	-		



METHYL-1H-BENZOTRIAZOLE

# VALEO SERVICE

# **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 7/18

Replaced revision:3 (Printed on: 14/11/2022)

Normal value for the terrestria	•				mg			
Health - Derived no-effe	ect level - DNEL / D Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			25 mg/m3	VND		5)2.2	50 mg/m3	VND
Skin			VND	20 mg/kg/d			VND	40 mg/kg/
2,2'-metilimminodietano Predicted no-effect concentra								
Normal value in fresh water				0,1	mg	ı/l		
Normal value in marine water	r			0,0125	mg	ı/l		
Normal value for fresh water	sediment			0,89	mg	ı/kg		
Normal value for marine water	er sediment			0,111	mg	ı/kg		
Normal value for water, interr	mittent release			1	mg	ı/l		
Normal value of STP microor	ganisms			10	mg	ı/l		
Normal value for the terrestria	al compartment			0,119	mg	ı/kg		
Health - Derived no-effe	ect level - DNEL / D Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
Inhalation				systemic		systemic		systemic 26 mg/m3
Skin	ı							19 mg/kg
Skin 2,6-di-tert-butyl-p-creso Threshold Limit Value	l ountry TWA/	8h	S	STEL/15min		Remarks	s/	· ·
Skin  2,6-di-tert-butyl-p-creso Threshold Limit Value				GTEL/15min	ppm	Remarks Observa		· ·
<b>2,6-di-tert-butyl-p-creso Threshold Limit Value</b> Type Co	ountry TWA/				ppm			· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co	ountry TWA/mg/m				ppm			· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra	ountry TWA/mg/m				ppm	Observa		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water	mg/m 2 ation - PNEC			ng/m3		Observa		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value in marine water	mg/m 2 ation - PNEC			ng/m3 0,199	hð hð	Observa		· ·
Skin  2,6-di-tert-butyl-p-creso Threshold Limit Value	mg/m 2 ation - PNEC			0,199 0,02	hg ha	Observa		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value in marine water	mg/m 2 ation - PNEC  r sediment er sediment			0,199 0,02 99,6	hg ha	Observa  /I  /I  //kg		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for fresh water	mg/m 2 ation - PNEC  r sediment er sediment mittent release			0,199 0,02 99,6 9,96	hg ha ha	Observa  // // // // // // // // // // // // /		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for marine water Normal value for marine water	puntry TWA/ mg/m 2 ation - PNEC r sediment er sediment mittent release ganisms	3		0,199 0,02 99,6 9,96 1,99	mč hg hg ha ha	Observa  // // // // // // // // // // // // /		· ·
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for marine water Normal value for marine water Normal value for water, interr Normal value of STP microor Normal value for the food cha	puntry TWA/ mg/m  2 ation - PNEC  r sediment er sediment mittent release ganisms ain (secondary poison	3		0,199 0,02 99,6 9,96 1,99 0,17	mč ha ha ha ha	Observa  // // // // //kg //kg		•
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for marine water Normal value for marine water Normal value for water, interr Normal value of STP microor	mg/m 2 ation - PNEC  r sediment er sediment mittent release ganisms ain (secondary poison al compartment ect level - DNEL / E Effects on	ing)		0,199 0,02 99,6 9,96 1,99 0,17 8,33	μg.	Observa  // // // // // // // // // // // // /		
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for marine water Normal value for marine water Normal value for water, interr Normal value of STP microor Normal value for the food cha	mg/m 2 ation - PNEC  r sediment er sediment mittent release ganisms ain (secondary poison al compartment ect level - DNEL / D	ing)  MEL  Acute systemic		0,199 0,02 99,6 9,96 1,99 0,17 8,33 47,69  Chronic systemic	hg hg hg hg	Observa  // // // // // // // // // // // // /		
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value for fresh water Normal value for marine water Normal value for marine water Normal value for marine water Normal value for the shood cha Normal value for the food cha Normal value for the terrestria Health - Derived no-effe	mg/m  2 ation - PNEC  r sediment er sediment mittent release ganisms ain (secondary poison al compartment ct level - DNEL / E Effects on consumers	ing)	ppm n	0,199 0,02 99,6 9,96 1,99 0,17 8,33 47,69  Chronic systemic 0,25 mg/kg	μg.	Observa  // // /// //kg //kg // //kg //kg // //kg //kg // Acute	tions	19 mg/kg  Chronic
2,6-di-tert-butyl-p-creso Threshold Limit Value Type Co  TLV-ACGIH Predicted no-effect concentra Normal value in fresh water Normal value in marine water Normal value for fresh water Normal value for marine water Normal value for marine water Normal value for the shoot cha Normal value for the food cha Normal value for the terrestria Health - Derived no-effe	mg/m  2 ation - PNEC  r sediment er sediment mittent release ganisms ain (secondary poison al compartment ct level - DNEL / E Effects on consumers	ing)  MEL  Acute systemic	ppm n	0,199 0,02 99,6 9,96 1,99 0,17 8,33 47,69  Chronic systemic	μg.	Observa  // // /// //kg //kg // //kg //kg // //kg //kg // Acute	tions	19 mg/kg  Chronic



# VALEO BRAKE AND CLUTCH FLUID DOT 3

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 8/18

Replaced revision:3 (Printed on: 14/11/2022)

Predicted no-effect concentration - PNEC			
Normal value in fresh water	0,008	mg/l	
Normal value in marine water	0,008	mg/l	
Normal value for fresh water sediment	0,0025	mg/kg	
Normal value for marine water sediment	0,0025	mg/kg	
Normal value for water, intermittent release	0,086	mg/l	
Normal value of STP microorganisms	39,4	mg/l	
Normal value for the terrestrial compartment	0,0024	mg/kg	

Health - Derived no-ef	fect level - DNEL / D	MEL						
	Effects on				Effects on			
	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
				systemic		systemic		systemic
Oral			VND	0,25 mg/kg				
Inhalation			VND	4,4 mg/m3			VND	8,8 mg/m3
Skin			VND	0,25 mg/kg			VND	0,5 mg/kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

#### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

#### RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 9/18

Replaced revision:3 (Printed on: 14/11/2022)

values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

#### **SECTION 9. Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Properties Appearance	<b>Value</b> liquid	Information
Colour	colourless to amber	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point Flammability	253 °C not available	Method:ISO 4925
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point Auto-ignition temperature	> 125 °C not available	Method:ASTM D93
Decomposition temperature	not available	
pH Kinematic viscosity	9,3 not available	Method:ISO 4925
Solubility	soluble	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density Relative vapour density	1,041 g/cm3 not available	Method:ASTM 1122
Particle characteristics	not applicable	

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 0
VOC (volatile carbon) 0

# **SECTION 10. Stability and reactivity**



# **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 10/18

Replaced revision:3 (Printed on: 14/11/2022)

#### 10.1. Reactivity

The product may react exothermically on contact with strong oxidising or reducing agents, strong acids or bases.

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Hygroscopic.

DIETHYLENE GLYCOL

Hygroscopic.

#### 10.2. Chemical stability

Excessively high temperatures can cause thermal decomposition.

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Avoid exposure to: air.

Hygroscopic.

#### 10.3. Possibility of hazardous reactions

See paragraph 10.1.

DIETHYLENE GLYCOL

May form explosive mixtures with: perchlorates.

#### 10.4. Conditions to avoid

Avoid overheating.

DIETHYLENE GLYCOL

Avoid exposure to: high temperatures.

#### 10.5. Incompatible materials

Oxidising or reducing agents. Strong acids or bases.

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Avoid contact with: strong acids, strong bases, water.

DIETHYLENE GLYCOL

Incompatible with: acids,bases,strong oxidising agents,strong reducing agents.

Keep away from: zinc.

2,6-di-tert-butyl-p-cresol



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 11/18

Replaced revision:3 (Printed on: 14/11/2022)

Avoid contact with: oxidising agents.

#### 10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Develops: carbon monoxide, carbon dioxide.

DIETHYLENE GLYCOL

In decomposition develops: carbon dioxide, carbon monoxide.

2,6-di-tert-butyl-p-cresol

In decomposition develops: carbon oxides.

#### **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)

ATE (Oral) of the mixture: 1538,46 mg/kg

ATE (Dermal) of the mixture: Not classified (no significant component)

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

LD50 (Dermal): 3540 mg/kg bw LD50 (Oral): 5170 mg/kg bw

DIETHYLENE GLYCOL

LD50 (Dermal): 13300 mg/kg



LC50 (Inhalation mists/powders):

#### VALEO SERVICE

## **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 12/18

Replaced revision:3 (Printed on: 14/11/2022)

LD50 (Oral): ATE (Oral): 16500 mg/kg

500 mg/kg estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

> 4.6 mg/l/4h

TRIETHYLENE GLYCOL

LD50 (Dermal): LD50 (Oral):

LC50 (Inhalation vapours):

16 ml/kg bw > 2000 mg/kg bw > 5,2 mg/l

2,6-di-tert-butyl-p-cresol

LD50 (Dermal): LD50 (Oral): > 2000 mg/kg dw > 2930 mg/kg dw

#### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

#### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.



# **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 13/18

Replaced revision:3 (Printed on: 14/11/2022)

#### **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

2,6-di-tert-butyl-p-cresol

EC50 - for Crustacea > 0.61 mg/l/48hChronic NOEC for Crustacea 0.316 mg/l

TRIETHYLENE GLYCOL

LC50 - for Fish 69800 mg/l/96h
EC50 - for Crustacea > 10000 mg/l/48h

Reaction mass of 2-(2-(2-

butoxyethoxy)ethoxy)ethanol and 3,6,9,12-

tetraoxahexadecan-1-ol

 $LC50 - for Fish > 1800 \ mg/l/96h \\ EC50 - for Crustacea > 3200 \ mg/l/48h \\ EC50 - for Algae / Aquatic Plants 391 \ mg/l/72h \\ EC10 \ for Algae / Aquatic Plants 188 \ mg/l/72h$ 

DIETHYLENE GLYCOL

LC50 - for Fish 75200 mg/l
Chronic NOEC for Algae / Aquatic Plants 100 mg/l/72h

#### 12.2. Persistence and degradability

2,6-di-tert-butyl-p-cresol NOT rapidly degradable

TRIETHYLENE GLYCOL

Rapidly degradable DIETHYLENE GLYCOL

Rapidly degradable

#### 12.3. Bioaccumulative potential

TRIETHYLENE GLYCOL

Partition coefficient: n-octanol/water -1,75

Reaction mass of 2-(2-(2-

butoxyethoxy)ethoxy)ethanol and 3,6,9,12-

tetraoxahexadecan-1-ol

Partition coefficient: n-octanol/water 0,51

DIETHYLENE GLYCOL

BCF 100

#### 12.4. Mobility in soil



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 14/18

Replaced revision:3 (Printed on: 14/11/2022)

Information not available

#### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

#### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

#### 12.7. Other adverse effects

Information not available

# **SECTION 13. Disposal considerations**

#### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

#### **SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number or ID number

not applicable

#### 14.2. UN proper shipping name

not applicable

#### 14.3. Transport hazard class(es)

not applicable



# **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 15/18

Replaced revision:3 (Printed on: 14/11/2022)

4.4. Packing group	
ot applicable	
4.5. Environmental hazards	
ot applicable	
4.6. Special precautions for user	
ot applicable	
4.7. Maritime transport in bulk acc	ording to IMO instruments
oformation not relevant	
SECTION 15. Regulatory	information
15.1. Safety, health and environme	ental regulations/legislation specific for the substance or mixture
<b>15.1. Safety, health and environme</b> eveso Category - Directive 2012/18/8	
eveso Category - Directive 2012/18/b	
eveso Category - Directive 2012/18/b	EU: None
eveso Category - Directive 2012/18/bestrictions relating to the product or coroduct	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006
eveso Category - Directive 2012/18/b estrictions relating to the product or o roduct Point	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006
eveso Category - Directive 2012/18/6 estrictions relating to the product or of roduct Point contained substance Point	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3
eveso Category - Directive 2012/18/6 estrictions relating to the product or of roduct Point contained substance Point	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3
eveso Category - Directive 2012/18/Nestrictions relating to the product or of roduct  Point  Contained substance  Point  egulation (EU) 2019/1148 - on the m	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3  75  harketing and use of explosives precursors
eveso Category - Directive 2012/18/Instrictions relating to the product or contained substance  Point  Description (EU) 2019/1148 - on the most applicable  Substances in Candidate List (Art. 59)	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3  75  harketing and use of explosives precursors
eveso Category - Directive 2012/18/Instrictions relating to the product or contained substance  Point  Description (EU) 2019/1148 - on the most applicable  Substances in Candidate List (Art. 59)	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3  75  marketing and use of explosives precursors  REACH)  duct does not contain any SVHC in percentage ≥ than 0,1%.
eveso Category - Directive 2012/18/I estrictions relating to the product or	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3  75  marketing and use of explosives precursors  REACH)  duct does not contain any SVHC in percentage ≥ than 0,1%.
eveso Category - Directive 2012/18/Nestrictions relating to the product or or coduct  Point  Contained substance  Point  egulation (EU) 2019/1148 - on the most applicable  ubstances in Candidate List (Art. 59)  on the basis of available data, the production (A	EU: None  contained substances pursuant to Annex XVII to EC Regulation 1907/2006  3  75  marketing and use of explosives precursors  REACH)  duct does not contain any SVHC in percentage ≥ than 0,1%.



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 16/18

Replaced revision:3 (Printed on: 14/11/2022)

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

DIETHYLENE GLYCOL

TRIETHYLENE GLYCOL

2,6-di-tert-butyl-p-cresol

#### **SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4 Acute toxicity, category 4

Eye Dam. 1 Serious eye damage, category 1

Eye irritation, category 2

Aquatic Chronic 1 Hazardous to the aquatic environment, chronic toxicity, category 1

H302 Harmful if swallowed.

H318 Causes serious eye damage.H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule

# VALEO BRAKE AND CLUTCH FLUID DOT 3

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 17/18

Replaced revision:3 (Printed on: 14/11/2022)

GHS: Globally Harmonized System of classification and labeling of chemicals

IATA DGR: International Air Transport Association Dangerous Goods Regulation

IC50: Immobilization Concentration 50%

IMDG: International Maritime Code for dangerous goods

IMO: International Maritime Organization

INDEX: Identifier in Annex VI of CLP

LC50: Lethal Concentration 50%

LD50: Lethal dose 50%

OEL: Occupational Exposure Level

PBT: Persistent, bioaccumulative and toxic

PEC: Predicted environmental Concentration

PEL: Predicted exposure level

PMT: Persistent, mobile and toxic

PNEC: Predicted no effect concentration

REACH: Regulation (EC) 1907/2006

RID: Regulation concerning the international transport of dangerous goods by train

TLV: Threshold Limit Value

TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

TWA: Time-weighted average exposure limit

TWA STEL: Short-term exposure limit

VOC: Volatile organic Compounds

vPvB: Very persistent and very bioaccumulative

vPvM: Very persistent and very mobile

WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 6. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
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- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and



#### **VALEO BRAKE AND CLUTCH FLUID DOT 3**

Revision nr. 4

Dated 04/08/2025

Printed on 04/08/2025

Page n. 18/18

Replaced revision:3 (Printed on: 14/11/2022)

thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

msds for B2C.

Changes to previous review: The following sections were modified: 01 / 03.