

BRAKE FLUID DOT 5.1 (9205002) Revision nr. 3

Dated 30/04/2019
Printed on 29/05/2019

Page n. 1/15

Replaced revision:2 (Dated: 29/04/2019)

#### **Safety Data Sheet**

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

#### 1.1. Product identifier

Product name

**BRAKE FLUID DOT 5.1 - 9205002** 

#### 1.2. Relev ant identified uses of the substance or mixture and uses advised against Intended use BRAKE FLUID DOT 5.1 (for B2C)

Identified Uses	Industrial	Professional	Consumer
Functional Fluids	✓	✓	4
1.3. Details of the supplier of the safety data sheet Name Full address District and Country	FTE automotive GmbH Postfach 11 80 / D-96104 Eb Andreas-Humann-Str. 2, D-96106 Ebern	em	
J.a.i.o. a.i.a coai.i.,	Phone +49-9531-81-0 Fax +49-9531-81-3377		
e-mail address of the competent person responsible for the Safety Data Sheet	pts.ebern.mailbox@valeo.co	m	
1.4. Emergency telephone number For urgent inquiries refer to	+49-9531-81-0 (business ho	ours)	

#### **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 20 15/830.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this she et.

Hazard classification and indication:

Reproductive toxicity, category 2

H361d

Suspected of damaging the unborn child.

#### 2.2. Label elements



Revision nr. 3

Dated 30/04/2019

Printed on 29/05/2019

Page n. 2/15

Replaced revision:2 (Dated: 29/04/2019)

#### BRAKE FLUID DOT 5.1 (9205002)

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

Hazard pictograms:



Signal words: Warning

Hazard statements:

H361d Suspected of damaging the unborn child.

Precautionary statements:

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

P102 Keep out of reach of children.

P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P101 If medical advice is needed, have product container or label at hand.

P405 Store locked up.

P201 Obtain special instructions before use.

Contains: tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] borate

#### 2.3. Other hazards

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

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

#### 3.2. Mixtures

Contains:

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

tris[2-[2-(2-

methoxyethoxy)ethoxy]ethyl]

borate

CAS 30989-05-0 60≤x < 70 Repr. 2 H361d

EC 250-418-4

INDEX -

Reg. no. 01-2119462824-33-xxxx

DIETHYLENE GLYCOL MONOMETHYL ETHER

CAS 111-77-3  $1 \le x < 2$  Repr. 2 H361d

EC 203-906-6



## Dated 30/04/2019 Printed on 29/05/2019 Page n. 3/15

#### BRAKE FLUID DOT 5.1 (9205002)

Page n. 3/15

Revision nr. 3

Replaced revision:2 (Dated: 29/04/2019)

INDEX 603-107-00-6

Reg. no. 01-2119475100-52-xxxx **CAPRYL AMINE ETHOXYLATE 2-4** 

CAS 15520-05-5

 $0 \le x < 1,5$ 

Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315

EC 239-555-0

INDEX -

Reg. no. 01-2120136161-71-xxxx

DIETHYLENE GLYCOL

CAS 111-46-6  $1 \le x < 4$  Acute Tox. 4 H302

EC 203-872-2

INDEX 603-140-00-6

Reg. no. 01-2119457857-21-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

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

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

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

Information not available

#### **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



### Dated 30/04/2019

#### BRAKE FLUID DOT 5.1 (9205002)

Page n. 4/15

Printed on 29/05/2019

Revision nr. 3

Replaced revision:2 (Dated: 29/04/2019)

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 hazar dous 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

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, drinkor 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



Revision nr. 3

Dated 30/04/2019

Printed on 29/05/2019

Page n. 5/15

Replaced revision:2 (Dated: 29/04/2019)

#### **BRAKE FLUID DOT 5.1** (9205002)

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

#### 8.1. Control parameters

#### Regulatory References:

DEU Deutschland TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte DNK Danmark Graensev aerdier per stoffer og materialer ESP España INSHT - Límites de exposición profesional para agentes químicos en España 2017 **EST** Eesti Töökeskkonna keemiliste ohutegurite piirnormid 1. Vastu võetud 18.09.2001 nr 293 RT I 2001, 77, 460 -Redaktsiooni jõustumise kp: 01.01.2008 FIN HTP-arv ot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja 2012:5 Suomi United Kingdom EH40/2005 Workplace exposure limits GBR GRC ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012 Ελλάδα Italia Decreto Legislativo 9 Aprile 2008, n.81 LTU Lietuva DEL LIETUVOS HIGIENOS NORMOS HN 23:2007 CHEMINIU MEDZIAGU 2007 m. spalio 15 d. Nr. V-827/A1-287 I V/A Ķīmisko v ielu aroda ekspozīcijas robežvērtības (AER) darba vides gaisā 2012 ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r Latv ija Polska POL PRT Portugal Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diaro da Republica I 26; 2012-02-06 ROU România Monitorul Oficial al României 44; 2012-01-19 Slov ensko NARIADENIE VLADY Slovenskej republiky z 20. júna 2007 SVK SVN Slov enija Uradni list Republike Slovenije 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah Pravilnika o v arovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu SWE EU Sv erige

Occupational Exposure Limit Values, AF 2011:18
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 91/322/EEC. OEL ĔU

#### **DIETHYLENE GLYCOL MONOMETHYL ETHER**

Threshold Limit V							
Туре	Country	TWA/8h		STEL/15min	1		
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	50,1	10			SKIN	
HTP	FIN	50,1	10			SKIN	
TLV	GRC	50,1	10				
VLEP	ITA	50,1	10			SKIN	
NDS	POL	50					
VLE	PRT	50,1	10			SKIN	
TLV	ROU	50,1	10			SKIN	
MV	SVN	50,1	10			SKIN	
OEL	EU	50,1	10			SKIN	

#### **DIETHYLENE GLYCOL**

Threshold Limit Value						
Туре	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	44	10	176	40	
MAK	DEU	44	10	176	40	
TLV	DNK	11	2,5			



Revision nr. 3

Dated 30/04/2019

Printed on 29/05/2019

Page n. 6/15

Replaced revision:2 (Dated: 29/04/2019)

BRAKE	FLUIL	ו סט כ	5.1
	(920500	02)	

TLV	EST	45	10	90	20	SKIN	
WEL	GBR	101	23				
RD	LTU	45	10	90	20	SKIN	
RV	LVA	10					
NPHV	SVK	44	10	176			
MAK	SWE	45	10	90	20	SKIN	
Predicted no-effect cor	ncentration - PNEC						
Normal value in freshv	vater			10	m	g/l	
Normal value in marine	e water			1	m	g/l	
Normal value for marine water sediment			20,9	20,9 mg/kg			
Normal value of STP m	nicroorganisms			10	m	g/I	
Normal value for the te	rrestrial compartment			1,53	m	g/kg	

Health - Deriv ed no-effe	ect level - DNEL/D Effects on consumers	MEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							12 mg/m3	VND
Skin							VND	53 mg/kg/d

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.

#### 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 (see standard EN 374).

The following should be considered when choosing workglove material: compatibility, degradation, failure time and permeability.

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.

#### SKINPROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with so ap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).



#### Dated 30/04/2019

Revision nr. 3

Printed on 29/05/2019

Page n. 7/15

Replaced revision:2 (Dated: 29/04/2019)

#### BRAKE FLUID DOT 5.1 (9205002)

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, 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). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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

Appearance liquid Colour amber

Odour characteristic
Odour threshold Not available

pH 7-11

Melting point/freezing point Not available > 265 °C Initial boiling point Boiling range Not available > 125 °C Flash point **Evaporation Rate** Not available Flammability of solids and gases not applicable Lower inflammability limit Not available Upper inflammability limit Not available Lower explosive limit Not available Upper explosive limit Not available Not available Vapour pressure Vapour density Not available Relative density 1,010-1,080 Solubility soluble Partition coefficient: n-octanol/water Not available

Viscosity 13,660 mm2/s Temperature:20°C

> 350 °C

Not available

Explosive properties Not available
Oxidising properties Not available

#### 9.2. Other information

Auto-ignition temperature

Decomposition temperature



# Revision nr. 3 Dated 30/04/2019 Printed on 29/05/2019

#### BRAKE FLUID DOT 5.1 (9205002)

Page n. 8/15

Replaced revision:2 (Dated: 29/04/2019)

VOC (Directive 2010/75/EC): 0
VOC (volatile carbon): 0

#### **SECTION 10. Stability and reactivity**

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

Hygroscopic.

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

DIETHYLENE GLYCOL MONOMETHYL ETHER

Reacts violently developing heaton contact with: alkaline metals, strong acids, strong oxidants, oleum. Fire hazard. Develops flammable gas on contact with: calcium hypochlorite. Develops hydrogen on contact with: aluminium.

#### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

DIETHYLENE GLYCOL MONOMETHYL ETHER

Possibility of explosion with air due to production of peroxides.

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products

DIETHYLENE GLYCOL MONOMETHYL ETHER

When heated to decomposition releases: harsh fumes, zinc alloys.



## Dated 30/04/2019 Printed on 29/05/2019 05002)

BRAKE FLUID DOT 5.1 (9205002)

Page n. 9/15
Replaced revision:2 (Dated: 29/04/2019)

Revision nr. 3

#### **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 toxicological effects

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

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
>2000 mg/kg
LD50 (Dermal) of the mixture:
Not classified (no significant component)

DIETHYLENE GLYCOL

LD50 (Oral) 12565 mg/kg Rat

LD50 (Dermal) 11890 mg/kg Rabbit

DIETHYLENE GLYCOL MONOMETHYL ETHER

LD50 (Oral) 5500 mg/kg Rat

#### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class



#### Dated 30/04/2019 Printed on 29/05/2019 Page n. 10/15

Revision nr. 3

Replaced revision:2 (Dated: 29/04/2019)

**BRAKE FLUID DOT 5.1** (9205002)

#### SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

Seriouseye damage/eye irritation Product: Species: Bovine comea Assessment: No eye irritation Method: OECD Test Guideline 437 Result: No eye irritation

GLP: yes

#### 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

Suspected of damaging the unborn child

#### 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

#### **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



### Dated 30/04/2019 Printed on 29/05/2019

#### **BRAKE FLUID DOT 5.1** (9205002)

Page n. 11/15

Revision nr. 3

Replaced revision:2 (Dated: 29/04/2019)

DIETHYLENE GLYCOL

LC50 - for Fish > 75 g/l

#### 12.2. Persistence and degradability

DIETHYLENE GLYCOL MONOMETHYL

**ETHER** 

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

#### 12.3. Bioaccumulative potential

DIETHYLENE GLYCOL MONOMETHYL **ETHER** 

Partition coefficient: n-octanol/water -0,47

#### 12.4. Mobility in soil

Information not available

#### 12.5. Results of PBT and v Pv B assessment

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

#### 12.6. 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. **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



Dated 30/04/2019

Revision nr. 3

Printed on 29/05/2019

#### BRAKE FLUID DOT 5.1 (9205002)

		Page n. 12/15 Replaced revision:2 (Dated: 29/04/2019)
Not applicable		
14.2. UN proper shipping name		
Not applicable		
14.3. Transport hazard class(es)		
Not applicable		
14.4. Packing group		
Not applicable		
14.5. Environmental hazards		
Not applicable		
14.6. Special precautions for user		
Not applicable		
14.7. Transport in bulk according to	Annex II of Marpol and the IBC Code	
Information not relevant		
SECTION 15. Regulatory	information	
15.1. Safety, health and environme	ental regulations/legislation specific for the substance or mixture	
Seveso Category - Directive 2012/18/	EC: None	

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006



## Dated 30/04/2019 Printed on 29/05/2019

#### BRAKE FLUID DOT 5.1 (9205002)

Page n. 13/15

Revision nr. 3

Replaced revision:2 (Dated: 29/04/2019)

<u>Product</u>

Point

Contained substance

Point 54 DIETHYLENE

3

GLYCOL MONOMETHYL ETHER Reg. no.: 01-2119475100-52-xxxx

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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

DIETHYLENE GLYCOL MONOMETHYL ETHER

DIETHYLENE GLYCOL

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

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



Dated 30/04/2019

Revision nr. 3

Printed on 29/05/2019

Page n. 14/15

Replaced revision:2 (Dated: 29/04/2019)

#### **BRAKE FLUID DOT 5.1** (9205002)

Repr. 2 Reproductive toxicity, category 2

Acute Tox. 4 Acute toxicity, category 4

Eve Dam. 1 Seriouseye damage, category 1

Skin Irrit. 2 Skin irritation, category 2

H361d Suspected of damaging the unborn child.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H315 Causes skin irritation.

#### LEGEND:

- · ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- · 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) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III 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)
- The MerckIndex. 10th Edition
- Handling Chemical Safety



#### BRAKE FLUID DOT 5.1 (9205002)

Revision nr. 3

Dated 30/04/2019
Printed on 29/05/2019

Page n. 15/15

Replaced revision:2 (Dated: 29/04/2019)

- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- 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 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 safe ty 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.

msds for B2C.

Changesto previous review: The following sections were modified: 09.