



VALEO SERVICE SAS  
EUROPE

Revision nr. 3

Dated 14/11/2022

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Replaced revision:2 (Printed on: 22/02/2022)

**BRAKE FLUID DOT3 (403403)**

## Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

Product name **BRAKE FLUID DOT3 - 403403**

#### 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 **Valeo Service UK Limited**  
Full address **53 Heming Road, Washford**  
District and Country **Redditch, Worcestershire, B98 0DZ**  
**ENGLAND**  
Tel. **+44 1527 838 300**  
Fax **+44 1527 523 732**

e-mail address of the competent person

responsible for the Safety Data Sheet **vsa.uk.technical.mailbox@valeo.com**

#### 1.4. Emergency telephone number

For urgent inquiries refer to **(+44 1527 838 300)(Business Hours)**  
**999 (emergency 24hrs)**

### 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.

Serious eye damage, category 1

H318

Causes serious eye damage.

#### 2.2. Label elements



**BRAKE FLUID DOT3 (403403)**

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

**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  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

| Identification   | x = Conc. %      | Classification (EC) 1272/2008 (CLP)                           |
|--|------------------|---|
| Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol |                  |   |
| CAS -  | $45 \leq x < 70$ | Eye Dam. 1 H318   |
| EC 907-996-4   |                  | Eye Dam. 1 H318: $\geq 30\%$ , Eye Irrit. 2 H319: $\geq 20\%$ |
| INDEX -  |                  |   |
| REACH Reg. 01-2119475115-41-   |                  |   |





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**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**

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.



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7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

|     |                |  |
|-----|----------------|--|
| DEU | Deutschland    | Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56  |
| 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, 17.10.2019, 1 - jõust. 17.01.2020]  |
| LTU | Lietuva        | Jsakymas dėl lietuvis 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) 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 2021   |

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

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

| Route of exposure | Effects on consumers |                |               | Effects on workers |             |                |               |                  |
|-------------------|----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic   | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral              |                      |                |               | 12,5 mg/kg bw/d    |             |                |               |                  |
| Inhalation        |                      |                |               | 117 mg/m3          |             |                |               | 195 mg/m3        |
| Skin              |                      |                |               | 125 mg/kg bw/d     |             |                |               | 208 mg/kg bw/d   |

DIETHYLENE GLYCOL

Threshold Limit Value

| Type | Country | TWA/8h | STEL/15min | Remarks / |
|------|---------|--------|------------|-----------|
|------|---------|--------|------------|-----------|



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|         |     |       |     |       |     | Observations |
|---------|-----|-------|-----|-------|-----|--------------|
|         |     | mg/m3 | ppm | mg/m3 | ppm |              |
| 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 concentration - PNEC     |  |  |  |       |       |
|--|--|--|--|-------|-------|
| Normal value in fresh water                  |  |  |  | 10    | mg/l  |
| Normal value in marine water                 |  |  |  | 1     | mg/l  |
| Normal value for fresh water sediment        |  |  |  | 20,9  | mg/kg |
| Normal value for marine water sediment       |  |  |  | 2,09  | mg/kg |
| Normal value for water, intermittent release |  |  |  | 10    | mg/l  |
| Normal value of STP microorganisms           |  |  |  | 199,5 | mg/l  |
| Normal value for the terrestrial compartment |  |  |  | 1,53  | mg/kg |

| Health - Derived no-effect level - DNEL / DMEL |                      |                |               |                  |                    |                |               |                  |
|--|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| Route of exposure                              | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|  | Acute 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 GLYCOL  
Threshold Limit Value**

| Type | Country | TWA/8h | STEL/15min | Remarks / Observations |     |
|------|---------|--------|------------|------------------------|-----|
|      |         | mg/m3  | ppm        | mg/m3                  | ppm |
| OEL  | EU      | 1000   |            |                        |     |

| Predicted no-effect concentration - PNEC     |  |  |  |      |       |
|--|--|--|--|------|-------|
| Normal value in fresh water                  |  |  |  | 10   | mg/l  |
| Normal value in marine water                 |  |  |  | 1    | mg/l  |
| Normal value for fresh water sediment        |  |  |  | 46   | mg/kg |
| Normal value of STP microorganisms           |  |  |  | 10   | mg/l  |
| Normal value for the terrestrial compartment |  |  |  | 3,32 | mg/kg |

| Health - Derived no-effect level - DNEL / DMEL |                      |                |               |                  |                    |                |               |                  |
|--|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
| Route of exposure                              | Effects on consumers |                |               |                  | Effects on workers |                |               |                  |
|  | Acute local          | Acute systemic | Chronic local | Chronic systemic | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Inhalation                                     |                      |                | 25 mg/m3      | VND              |                    |                | 50 mg/m3      | VND              |
| Skin   |                      |                | VND           | 20 mg/kg/d       |                    |                | VND           | 40 mg/kg/d       |



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

**Threshold Limit Value**

| Type  | Country | TWA/8h |     | STEL/15min |       | Remarks / Observations |  |  |
|---|---------|--------|-----|------------|-------|------------------------|--|--|
|   |         | mg/m3  | ppm | mg/m3      | ppm   |                        |  |  |
| TLV-ACGIH   |         | 2      |     |            |       |                        |  |  |
| Predicted no-effect concentration - PNEC              |         |        |     |            |       |                        |  |  |
| Normal value in fresh water                           |         |        |     | 0,199      | µg/l  |                        |  |  |
| Normal value in marine water                          |         |        |     | 0,02       | µg/l  |                        |  |  |
| Normal value for fresh water sediment                 |         |        |     | 99,6       | µG/kg |                        |  |  |
| Normal value for marine water sediment                |         |        |     | 9,96       | µG/kg |                        |  |  |
| Normal value for water, intermittent release          |         |        |     | 1,99       | µg/l  |                        |  |  |
| Normal value of STP microorganisms                    |         |        |     | 0,17       | mg/l  |                        |  |  |
| Normal value for the food chain (secondary poisoning) |         |        |     | 8,33       | mg/kg |                        |  |  |
| Normal value for the terrestrial compartment          |         |        |     | 47,69      | µG/kg |                        |  |  |

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

| Route of exposure | Effects on consumers |                |               | Effects on workers |             |                |               |                  |
|-------------------|----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic   | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral              |                      | 1 mg/kg bw/d   |               | 0,25 mg/kg bw/d    |             |                |               |                  |
| Inhalation        |                      | 3,1 mg/m3      |               | 0,78 mg/m3         |             | 18 mg/m3       |               | 4,4 mg/m3        |
| Skin              |                      | 6,7 mg/kg bw/d |               | 1,7 mg/kg bw/d     |             | 19 mg/kg bw/d  |               | 4,7 mg/kg bw/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 work glove 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.

**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.



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**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

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**

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

| Properties                             | Value               | Information         |
|--|---------------------|---------------------|
| Appearance                             | liquid              |                     |
| Colour                                 | colourless to amber |                     |
| Odour                                  | characteristic      |                     |
| Melting point / freezing point         | Not available       |                     |
| Initial boiling point                  | > 200 °C            |                     |
| Flammability                           | Not available       |                     |
| Lower explosive limit                  | Not applicable      |                     |
| Upper explosive limit                  | Not applicable      |                     |
| Flash point                            | > 100 °C            |                     |
| Auto-ignition temperature              | Not available       |                     |
| pH                                     | 9                   |                     |
| Kinematic viscosity                    | Not available       | Temperature: -40 °C |
| Dynamic viscosity                      | 1250                |                     |
| Solubility                             | soluble             |                     |
| Partition coefficient: n-octanol/water | Not available       |                     |
| Vapour pressure                        | Not available       |                     |
| Density and/or relative density        | 1,000 - 1,100       |                     |
| Relative vapour density                | Not available       |                     |
| Particle characteristics               | Not applicable      |                     |

### 9.2. Other information





**BRAKE FLUID DOT3 (403403)**

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

### 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.



**BRAKE FLUID DOT3 (403403)**

**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

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



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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  |
| LD50 (Oral):                     | 16500 mg/kg  |
| STA (Oral):                      | 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP<br>(figure used for calculation of the acute toxicity estimate of the mixture) |
| LC50 (Inhalation mists/powders): | > 4,6 mg/l/4h  |

**TRIETHYLENE GLYCOL**

|                            |                 |
|----------------------------|-----------------|
| LD50 (Dermal):             | 16 ml/kg bw     |
| LD50 (Oral):               | > 2000 mg/kg bw |
| LC50 (Inhalation vapours): | > 5,2 mg/l      |

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

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



**BRAKE FLUID DOT3 (403403)**

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

Respiratory sensitization

Information not available

Skin sensitization

Information not available

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



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Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available



**BRAKE FLUID DOT3 (403403)**

Route of exposure

Information not available

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.

**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/48h

Chronic 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

EC50 - for Algae / Aquatic Plants 2700 mg/l/72h



**BRAKE FLUID DOT3 (403403)**

**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**

TRIETHYLENE GLYCOL

Partition coefficient: soil/water

1

**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  $\geq$  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**



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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 or ID number

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





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Not applicable

**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant

**SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

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

Product

Point 3

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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



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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:

|                          |  |
|--------------------------|--|
| <b>Acute Tox. 4</b>      | Acute toxicity, category 4   |
| <b>Eye Dam. 1</b>        | Serious eye damage, category 1                                     |
| <b>Aquatic Chronic 1</b> | Hazardous to the aquatic environment, chronic toxicity, category 1 |
| <b>H302</b>              | Harmful if swallowed.  |
| <b>H318</b>              | Causes serious eye damage.   |
| <b>H410</b>              | 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
- 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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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



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- TWA STEL: Short-term 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) 2020/878 (II Annex of REACH Regulation)
  4. Regulation (EC) 790/2009 (I Atp. CLP) 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 (EU) 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
  18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
  19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
  20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
  21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - 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 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:

03 / 09.