

**Brake Fluid Dot 5.1**

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Product Name Brake Fluid Dot 5.1
Product code 1816
Unique Formula Identifier (UFI) S9E0-A0PD-T008-XPXT

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

Identified Use(s) Hydraulic fluid.
Uses Advised Against Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Company Identification Granville Oil & Chemicals Ltd
Address of Manufacturer 29 Goldthorpe Ind. Est.,
Goldthorpe,
Rotherham,
South Yorkshire,

Postal code S63 9BL
Telephone: +44 (0)1709 890099
Fax Not known.
E-mail lab@granvilleoil.com
Office hours 08:00 - 17:00

Responsible Person

Company Identification Veedol Deutschland GmbH
Address of Responsible Person Hans-Böckler-Straße 10
Langenfeld,
Germany

Postal code 40764
Telephone: +49 (0) 2173 893 30 30
Fax Not known.
E-mail lab@granvilleoil.com
Office hours

1.4 Emergency telephone number

Emergency Phone No. +44 (0)1709 890099
Contact Granville Lab
National response centre
Address NHS Direct
Emergency Phone No. +44 111

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

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Regulation (EC) No. 1272/2008 (CLP) Repr. 2 :Suspected of damaging the unborn child.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name

Brake Fluid Dot 5.1

Contains

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate 2-(2-methoxyethoxy)ethanol;

Hazard Pictogram(s)



GHS08

Signal Word(s)

Warning

Hazard Statement(s)

H361d: Suspected of damaging the unborn child.

Precautionary Statement(s)

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P264: Wash hands and exposed skin thoroughly after handling.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents in accordance with local, state or national legislation.

Unique Formula Identifier (UFI)

S9E0-A0PD-T008-XPXT

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Not applicable.

3.2 Mixtures

| HAZARDOUS INGREDIENT(S) | CAS No. | EC No. / REACH Registration No. | %W/W | Hazard Statement(s) | Hazard Pictogram(s) |
|-------------------------|---------|---------------------------------|------|---------------------|---------------------|
| | | | | | |



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| | | | | | |
|---|------------|-----------|--------|-------------------|-------|
| tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate | 30989-05-0 | 250-418-4 | 30-90 | Repr. 2 H361d | GHS08 |
| 2-[2-(2-butoxyethoxy)ethoxy]ethanol TEGBE triethylene glycol monobutyl ether butoxytriethylene glycol | 143-22-6 | 205-592-6 | 1-9.9 | Eye Dam. 1 H318 | GHS05 |
| ?, Polyethylene glycol butyl ether | 9004-77-7 | 500-012-0 | 0-5 | Eye Irrit. 2 H319 | GHS07 |
| 2-(2-methoxyethoxy)ethanol diethylene glycol monomethyl ether | 111-77-3 | 203-906-6 | 0-2.99 | Repr. 2 H361d | GHS08 |

| HAZARDOUS INGREDIENT(S) | CAS No. | Specific Concentration Limit | | M-factor | ATE |
|---|----------|------------------------------|---------------------|----------|-----|
| 2-[2-(2-butoxyethoxy)ethoxy]ethanol TEGBE triethylene glycol monobutyl ether butoxytriethylene glycol | 143-22-6 | Eye Dam. 1 | C>= 30.00 <= 100.00 | | |
| | | Eye Irrit. 2 | C>= 20.00 < 30.00 | | |

Contains no non-classified vPvB substances or substances with a Union workplace exposure limit.
For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

| | |
|--------------|---|
| Inhalation | Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her. If recovery is not rapid, seek medical attention. |
| Skin Contact | Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention. |
| Eye Contact | Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30° C) for at least 5 minutes. If any irritation persists, seek medical assistance and continue flushing during transport. |
| Ingestion | Provide plenty of water for the person to drink and stay with him/her. Seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material. If medical attention is delayed, give adults 90-120 ml hard liquor such as 40% v/v spirits. Give children proportionately less at a rate of 2ml/kg body weight. |

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms are described in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

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IF exposed or concerned: Get medical advice/attention. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable Extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water mist. Waterjets should not be used since they can spread the fire. However, they may be used to cool adjacent containers.

Unsuitable extinguishing media

None.

5.2 Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are: Carbon oxides (CO / CO₂).

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Avoid direct contact with spilled substances. Prevent unnecessary personnel entering area of a spill. When cleaning up large spills appropriate protective clothing should be worn - see section 8.

6.2 Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3 Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials and dispose of it in accordance with the regulations on dangerous waste. Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid any method of handling that generates mists or aerosols. Avoid direct contact with the product. Do not eat, drink or smoke when handling this product.

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See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Always store in containers of the same material as the original container.

Storage temperature

Room temperature 15 to 30° C

Storage life

Stable under normal conditions.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3 Specific end use(s)

Hydraulic fluid

Users are referred to the specification SAE J1707 "Service maintenance of brake fluids".

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

8.1.1 Occupational Exposure Limits

| Occupational Exposure Limits | | | | | | |
|------------------------------|----------|---------------------|------------------------------------|------------|---------------------------|------|
| SUBSTANCE. | CAS No. | LTEL (8 hr TWA ppm) | LTEL (8 hr TWA mg/m ³) | STEL (ppm) | STEL (mg/m ³) | Note |
| 2-(2-Methoxyethoxy) ethanol | 111-77-3 | 10 | 50.1 | | | Sk |

Region Source
United Kingdom UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark Notes
Sk Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

8.2 Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis. Do not eat, drink, or smoke when handling this product. Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above. Do not recirculate outlet air that contain the substances. In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms, and face. Keep spill absorbent materials available in the workplace. If possible, clean up any spills immediately. Use only UKCA marked protective equipment.

8.2.1. Appropriate engineering controls Use with ventilation, local exhaust ventilation or breathing protection.

8.2.2. Personal protection equipment

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Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN374-2, EN374-3, EN388)



Respiratory protection

No specific requirements.



Thermal hazards

None known.

8.2.3. Environmental Exposure Controls Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

| | |
|--|---|
| Physical state | Liquid. |
| Colour | Amber. |
| Odour | Mild. |
| Melting point/freezing point | < -50. |
| Boiling point or initial boiling point and boiling range | >260. |
| Flammability | Not known. |
| Lower and upper explosion limit | Testing not relevant or not possible due to nature of the product. |
| Flash Point | >120. |
| Auto-ignition temperature | Testing not relevant or not possible due to nature of the product. |
| Decomposition Temperature | 300. |
| pH | 7-10.5. |
| Kinematic Viscosity | 5-10 centistokes (20 ° C). |
| Solubility | Solubility (Water) : Completely soluble. Solubility (Other) : Not known. |
| Partition coefficient n-octanol/water (log value) | 1.5. |
| Vapour pressure | 1 millibar. |
| Density and/or relative density | 1.02 – 1.07 (g/cm ³). |
| Relative vapour density | Testing not relevant or not possible due to nature of the product. |
| Particle characteristics | Not known. |

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

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None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

None anticipated.

10.5 Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6 Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

| | |
|--------------------------------|--|
| Acute toxicity - Ingestion | Calculation method : Not classified. |
| Acute toxicity - Skin Contact | Calculation method : Not classified. |
| Acute toxicity - Inhalation | Calculation method : Not classified. |
| Skin corrosion/irritation | Calculation method : Not classified. |
| Serious eye damage/irritation | Calculation method : Not classified. |
| Skin sensitization data | Calculation method : Not classified. |
| Respiratory sensitization data | Calculation method : Not classified. |
| Germ cell mutagenicity | Calculation method : Not classified. |
| Carcinogenicity | Calculation method : Not classified. |
| Reproductive toxicity | Calculation method : Suspected of damaging the unborn child. |
| Lactation | Calculation method : Not classified. |
| STOT - single exposure | Calculation method : Not classified. |
| STOT - repeated exposure | Calculation method : Not classified. |
| Aspiration hazard | Calculation method : Not classified. |

11.2 Information on other hazards

Not known.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

| | |
|------------------------------------|--------------------------------|
| Toxicity - Aquatic invertebrates | Low toxicity to invertebrates. |
| Toxicity - Fish | Low toxicity to fish. |
| Toxicity - Algae | Low toxicity to algae. |
| Toxicity - Sediment Compartment | Not classified. |
| Toxicity - Terrestrial Compartment | Not classified. |

12.2 Persistence and degradability

Not known.

12.3 Bioaccumulative potential

Not known.

**Brake Fluid Dot 5.1****12.4 Mobility in soil**

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Endocrine disrupting properties

None known.

12.7 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product is covered by the regulations on hazardous waste. HP 10 – Toxic for reproduction Dispose of contents/container to an approved waste disposal plant. Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Dispose of in accord with local and national regulations. Recycling or incineration with energy recovery are recommended. Packaging containing residues of the product must be disposed of similarly to the product.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION**Not classified as hazardous for transport.****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 classified as a Marine Pollutant.

14.6 Special precautions for user

Not known

14.7 Maritime transport in bulk according to IMO instruments

Not known

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Regulations - Authorisations and/or Restrictions On Use

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| | |
|---|---|
| Candidate List of Substances of Very High Concern for Authorisation | Not listed |
| REACH: ANNEX XIV list of substances subject to authorisation | Not listed |
| REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | 2-(2-methoxyethoxy)ethanol (DEGME) (111-77-3), 2-[2-(2-butoxyethoxy)ethoxy]ethanol TEGBE triethylene glycol monobutyl ether butoxytriethylene glycol (143-22-6), ?, Polyethylene glycol butyl ether (9004-77-7) |
| Community Rolling Action Plan (CoRAP) | Not listed |
| Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants | Not listed |
| Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer | Not listed |
| Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals | Not listed |

National regulations

| | |
|-------|---|
| Other | Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered. |
|-------|---|

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS08

GHS05: GHS: Corrosion

GHS07: GHS: Exclamation mark

Hazard classification

Eye Dam. 1 : Serious eye damage/irritation, Category 1
Eye Irrit. 2 : Serious eye damage/irritation, Category 2
Repr. 2 : Reproductive toxicity, Category 2

Hazard Statement(s)

H318: Causes serious eye damage.

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H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

Precautionary Statement(s)

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P405: Store locked up.

P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

ATE : Acute Toxicity Estimate

CAS : Chemical Abstracts Service

CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

vPvB : very Persistent and very Bioaccumulative

Key literature references and sources
for data used to compile the SDS

Regulation (EC) No. 1272/2008 (CLP)

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