

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : BRAKE FLUID DOT 5.1  
UFI : 2GS2-WH6X-TF0N-X17U  
Product code : 5038  
Type of product : WOC  
Product group : Blend

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : Used in closed systems  
Non-dispersive use  
Function or use category : brake fluids

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

WOLF OIL CORPORATION N.V.  
Georges Gilliotstraat, 52  
2620 Hemiksem, Antwerpen  
België  
T 0032 (0)3 870 00 00, F 0032 (0)3 870 00 99  
[msds@wolfoil.com](mailto:msds@wolfoil.com)

#### 1.4. Emergency telephone number

Emergency number : 0032 (0)3 870 00 00

| Country/Area | Organisation/Company  | Address                                 | Emergency number   | Comment |
|--------------|---|---|--|---------|
| Ireland      | National Poisons Information Centre<br>Beaumont Hospital      | PO Box 1297<br>Beaumont Road<br>9       | +353 1 809 2566<br>(Healthcare professionals-<br>24/7)<br>+353 1 809 2166 (public,<br>8am - 10pm, 7/7) |         |
| Israel       | Israel Poison Information Center<br>Rambam Health Care Campus | 6 Ha'Aliya Street<br>31096              | +972 4 854 1900  |         |
| Malta        | Medicines & Poisons Info Office                               | Mater Dei Hospital<br>Msida<br>MSD 2090 | +356 2545 6508   |         |
| Sweden       | Giftinformationscentralen                                     | Box 60 500<br>171 76 Stockholm          | 112 – begär<br>Giftinformation<br>+46 10 456 6700 (Från<br>utlandet)                                   |         |

### SECTION 2: Hazards identification

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

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

Reproductive toxicity, Category 2 H361fd

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS08

Signal word (CLP)

: Warning

Contains

: Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]orthoborate

Hazard statements (CLP)

: H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements (CLP)

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

P102 - Keep out of reach of children.

P264 - Wash hands, forearms and face thoroughly after handling.

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.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

## 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name  | Product identifier   | %        | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|----------|---|
| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]orthoborate | CAS-No.: 30989-05-0<br>EC-No.: 250-418-4<br>REACH-no: 01-2119462824-33                             | 80 – 95  | Repr. 2, H361fd   |
| butoxytriethylene glycol                            | CAS-No.: 143-22-6<br>EC-No.: 205-592-6<br>EC Index-No.: 603-183-00-0<br>REACH-no: 01-2119531322-53 | 10 – 15  | Eye Dam. 1, H318  |
| 3,6,9,12-tetraoxahexadecan-1-ol                     | CAS-No.: 1559-34-8<br>EC-No.: 216-322-1  | 1 – 3    | Eye Irrit. 2, H319  |
| 2-(2-methoxyethoxy)ethanol                          | CAS-No.: 111-77-3<br>EC-No.: 203-906-6<br>EC Index-No.: 603-107-00-6                               | 0 – 0.99 | Repr. 1B, H360D   |

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| Specific concentration limits: |  |   |
|--------------------------------|--|---|
| Name                           | Product identifier   | Specific concentration limits (%)                                   |
| butoxytriethylene glycol       | CAS-No.: 143-22-6<br>EC-No.: 205-592-6<br>EC Index-No.: 603-183-00-0<br>REACH-no: 01-2119531322-53 | (20 ≤ C < 30) Eye Irrit. 2, H319<br>(30 ≤ C ≤ 100) Eye Dam. 1, H318 |
| 2-(2-methoxyethoxy)ethanol     | CAS-No.: 111-77-3<br>EC-No.: 203-906-6<br>EC Index-No.: 603-107-00-6                               | (3 ≤ C ≤ 100) Repr. 1B, H360D                                       |

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : Take off immediately all contaminated clothing.  |
| First-aid measures after inhalation   | : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice.                             |
| First-aid measures after skin contact | : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.                        |
| First-aid measures after eye contact  | : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Seek medical attention if ill effect or irritation develops. |
| First-aid measures after ingestion    | : Get immediate medical advice/attention.  |

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

|                                     |  |
|-------------------------------------|--|
| Symptoms/effects after inhalation   | : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.  |
| Symptoms/effects after skin contact | : Not expected to present a significant skin hazard under anticipated conditions of normal use.        |
| Symptoms/effects after eye contact  | : Not expected to present a significant eye contact hazard under anticipated conditions of normal use. |
| Symptoms/effects after ingestion    | : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.   |

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                              |   |
|------------------------------|---|
| Suitable extinguishing media | : Carbon dioxide. Powder. Strong water jet. Alcohol resistant foam. |
|------------------------------|---|

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

No additional information available

### 5.3. Advice for firefighters

|                                |   |
|--------------------------------|---|
| Precautionary measures fire    | : Exercise caution when fighting any chemical fire.   |
| Firefighting instructions      | : Use water spray or fog for cooling exposed containers.  |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

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### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

##### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

For containment : Impound and recover large spill by mixing it with inert granular solids.  
Methods for cleaning up : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.  
Other information : Spill area may be slippery. Use suitable disposal containers.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.  
Handling temperature : < 40 °C  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage temperature : ≤ 40 °C  
Storage area : Store in dry, cool, well-ventilated area.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

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### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

#### 8.2.2. Personal protection equipment

**Personal protective equipment:**

Safety glasses. Gloves.

**Personal protective equipment symbol(s):**



##### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

##### 8.2.2.2. Skin protection

**Skin and body protection:**

No special clothing/skin protection equipment is recommended under normal conditions of use

**Hand protection:**

Wear suitable gloves resistant to chemical penetration. Butyl rubber gloves

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

|   |                                  |
|---|----------------------------------|
| Physical state                                  | : Liquid                         |
| Colour  | : brown.                         |
| Appearance                                      | : Liquid.                        |
| Odour   | : mild.                          |
| Odour threshold                                 | : Not available                  |
| Melting point                                   | : < -50 °C                       |
| Freezing point                                  | : Not available                  |
| Boiling point                                   | : > 260 °C                       |
| Flammability                                    | : Not available                  |
| Lower explosion limit                           | : Not available                  |
| Upper explosion limit                           | : Not available                  |
| Flash point                                     | : > 120 °C                       |
| Auto-ignition temperature                       | : > 280 °C                       |
| Decomposition temperature                       | : 300 °C                         |
| pH  | : 7 – 10.5                       |
| Viscosity, kinematic                            | : 5 – 10 mm²/s @20°C (ASTM D445) |
| Solubility                                      | : Complete.                      |
| Partition coefficient n-octanol/water (Log Kow) | : Not available                  |
| Partition coefficient n-octanol/water (Log Pow) | : 1.5                            |
| Vapour pressure                                 | : 1 mbar @20°C                   |

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|                                 |                     |
|---------------------------------|---------------------|
| Vapour pressure at 50°C         | : Not available     |
| Density                         | : 1.02 – 1.07 g/cm³ |
| Relative density                | : Not available     |
| Relative vapour density at 20°C | : Not available     |
| Particle characteristics        | : Not applicable    |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : 0.01

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None under normal conditions.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal conditions.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

Strong oxidizers. acids. Bases.

### 10.6. Hazardous decomposition products

None under normal conditions.

## SECTION 11: Toxicological information

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

|                             |                  |
|-----------------------------|------------------|
| Acute toxicity (oral)       | : Not classified |
| Acute toxicity (dermal)     | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

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|---------------------|--------------|
| LD50 oral rat       | > 5000 mg/kg |
| LD50 dermal rabbit  | > 3000 mg/kg |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Not classified<br>pH: 7 – 10.5  |
| Serious eye damage/irritation     | : Not classified (Based on available data, the classification criteria are not met)<br>pH: 7 – 10.5 |
| Respiratory or skin sensitisation | : Not classified  |
| Germ cell mutagenicity            | : Not classified  |
| Carcinogenicity                   | : Not classified  |
| Reproductive toxicity             | : Suspected of damaging fertility. Suspected of damaging the unborn child.                          |
| STOT-single exposure              | : Not classified  |
| STOT-repeated exposure            | : Not classified  |
| Aspiration hazard                 | : Not classified  |

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|                      |   |
|----------------------|---|
| Viscosity, kinematic | 5 – 10 mm <sup>2</sup> /s @20°C (ASTM D445) |
|----------------------|---|

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

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|                 |                                |
|-----------------|--------------------------------|
| LC50 - Fish [1] | > 100 mg/l Oncorhynchus Mykiss |
|-----------------|--------------------------------|

### 12.2. Persistence and degradability

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|                               |                    |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
|-------------------------------|--------------------|

|                |                      |
|----------------|----------------------|
| Biodegradation | 100 % OECD 302B @21d |
|----------------|----------------------|

#### Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]orthoborate (30989-05-0)

|                               |                        |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

#### butoxytriethylene glycol (143-22-6)

|                               |                    |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
|-------------------------------|--------------------|

#### 3,6,9,12-tetraoxahexadecan-1-ol (1559-34-8)

|                               |                    |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
|-------------------------------|--------------------|

#### 2-(2-methoxyethoxy)ethanol (111-77-3)

|                               |                    |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
|-------------------------------|--------------------|

### 12.3. Bioaccumulative potential

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|   |     |
|---|-----|
| Partition coefficient n-octanol/water (Log Pow) | 1.5 |
|---|-----|

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Additional information : Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

#### 14.1. UN number or ID number

Not regulated for transport

#### 14.2. UN proper shipping name

|                             |                  |
|-----------------------------|------------------|
| Proper Shipping Name (ADR)  | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN)  | : Not applicable |
| Proper Shipping Name (RID)  | : Not applicable |

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

##### ADR

Transport hazard class(es) (ADR) : Not applicable

##### IMDG

Transport hazard class(es) (IMDG) : Not applicable

##### IATA

Transport hazard class(es) (IATA) : Not applicable

##### ADN

Transport hazard class(es) (ADN) : Not applicable

##### RID

Transport hazard class(es) (RID) : Not applicable

#### 14.4. Packing group

|                      |                  |
|----------------------|------------------|
| Packing group (ADR)  | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| Packing group (ADN)  | : Not applicable |
| Packing group (RID)  | : Not applicable |

#### 14.5. Environmental hazards

Other information : No supplementary information available

#### 14.6. Special precautions for user

##### Overland transport

No data available

##### Transport by sea

No data available

##### Air transport

No data available

##### Inland waterway transport

No data available



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### Rail transport

No data available

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

##### France

| Occupational diseases |   |
|-----------------------|---|
| Code                  | Description   |
| RG 84                 | Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide |

##### Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).  
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed  
SZW-lijst van mutagene stoffen : None of the components are listed  
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

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|  |   |
|--|---|
| SZW-lijst van reprotoxische stoffen – Vruchtbaarheid | : None of the components are listed   |
| SZW-lijst van reprotoxische stoffen – Ontwikkeling   | : 2-(2-methoxyethoxy)ethanol is listed  |
| <b>Denmark</b>                                       |   |
| MAL code   | : 00-3 (Executive Order No. 301 from 1993)  |
| Danish National Regulations                          | : Young people below the age of 18 years are not allowed to use the product<br>Pregnant/breastfeeding women working with the product must not be in direct contact with the product |

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

| Indication of changes |                          |          |          |
|-----------------------|--------------------------|----------|----------|
| Section               | Changed item             | Change   | Comments |
|                       | SDS EU format            | Modified |          |
|                       | Supersedes               | Modified |          |
|                       | Revision date            | Modified |          |
| 1.1                   | UFI on SDS 1.1           | Added    |          |
| 9.1                   | Boiling point            | Modified |          |
| 9.1                   | Flash point              | Modified |          |
| 9.1                   | Vapour pressure          | Modified |          |
| 9.1                   | Viscosity, kinematic     | Modified |          |
| 9.1                   | Melting point            | Modified |          |
| 15.1                  | Water hazard class (WGK) | Added    |          |

|                   |  |
|-------------------|--|
| Other information | : The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. |
|-------------------|--|

| Full text of H- and EUH-statements: |  |
|-------------------------------------|--|
| Eye Dam. 1                          | Serious eye damage/eye irritation, Category 1                            |
| Eye Irrit. 2                        | Serious eye damage/eye irritation, Category 2                            |
| H318                                | Causes serious eye damage.   |
| H319                                | Causes serious eye irritation.   |
| H360D                               | May damage the unborn child.   |
| H361fd                              | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| Repr. 1B                            | Reproductive toxicity, Category 1B                                       |
| Repr. 2                             | Reproductive toxicity, Category 2  |

Safety Data Sheet (SDS), EU

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.