

## Safety Data Sheet

Issue date: 25.11.2016

v 3

Last Revision Date: 25.11.2016

## 1 Identification

- **Product identifier**

- **Trade name: Brake Fluid - DOT 3**

- **Part number:** 205203, 205230

- **Application of the substance / the mixture** automotive brake fluid

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

- Terraclean, division of, CPS Products Canada Ltd.

- 1324 Blundell Road

- Mississauga, ON L4Y 1M5

- Canada

- Tel: (905) 615-8620

- **email of person responsible:** customerservice@terraclean.net

- **Emergency telephone number:**

- CHEMTREC International +1 (703) 527-3887 (outside the US), 1-800-424-9300 (in the US) 24 hr

## 2 Hazard(s) identification

- **Classification of the substance or mixture**

Eye Dam. 1 H318 Causes serious eye damage.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **Label elements**

- **GHS label elements**

- The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

- 2-[2-(2-butoxyethoxy)ethoxy]ethanol

- 2,2'-oxybisethanol

- **Hazard statements**

- Causes serious eye damage.

- May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

- Do not breathe dust/fume/gas/mist/vapors/spray.

- Wash thoroughly after handling.

- Wear protective gloves/protective clothing/eye protection/face protection.

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- If eye irritation persists: Get medical advice/attention.

- Dispose of contents in accordance with local regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· **vPvB:** Not applicable.**3 Composition/information on ingredients**· **Chemical characterization: Mixtures**· **Description:** Mixture: consisting of the following hazardous components.· **Chemical components:**

112-34-5	2-(2-butoxyethoxy)ethanol	≤25%
143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol	10-<20%
111-90-0	Carbitol	2.5-<10%
6881-94-3	2-(2-propoxyethoxy)ethanol	2.5-<10%
111-46-6	2,2'-oxybisethanol	2.5-<10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**4 First-aid measures**· **Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed**

Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Fire-fighting measures**· **Extinguishing media**· **Suitable extinguishing agents:**CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.· **For safety reasons unsuitable extinguishing agents:** Water with full jet· **Special hazards arising from the substance or mixture** See section 10 for additional information.· **Advice for firefighters**· **Protective equipment:**

Recommend wearing self-contained breathing apparatus. Water may cause splattering.

**6 Accidental release measures**· **Personal precautions, protective equipment and emergency procedures**

Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing. Ventilate area if spilled in a confined space or other poorly ventilated area.

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- Keep people at a distance and stay upwind.
- Particular danger of slipping on leaked/spilled product.
- Keep away from ignition sources
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions:** Prevent from spreading (e.g. by damming-in or oil barriers).
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

- **Handling:**
  - **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:**  
See section 10 for incompatible materials.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**· **Control parameters**

· <b>Components with limit values that require monitoring at the workplace:</b>	
<b>112-34-5 2-(2-butoxyethoxy)ethanol (10-25%)</b>	
TLV (USA)	TWA: 67.5* mg/m <sup>3</sup> , 10* ppm *Inhalable fraction and vapor
<b>111-90-0 Carbitol (2.5-10%)</b>	
WEEL (USA)	TWA: 25 ppm
EV (Canada)	TWA: 165 mg/m <sup>3</sup> , 30 ppm
<b>111-46-6 2,2'-oxybisethanol (2.5-10%)</b>	
WEEL (USA)	TWA: 10 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal protective equipment:**
    - **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Chemical resistant protective gloves

· **Eye protection:**



Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- **Form:** Fluid
- **Color:** Light yellow
- **Odor:** Mild
- **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

· **Flash point:** 203 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 190 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- **Lower:** 0.9 Vol %
- **Upper:** 5.9 Vol %

· **Vapor pressure at 20 °C:** 0.1 hPa

· **Density:** Not determined.

- **Relative density at 20 °C** 1.01-1.05
- **Vapor density** Not determined.

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· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** High temperatures
- **Incompatible materials:** Strong acids. Oxidizing agents. Strong alkalis.
- **Hazardous decomposition products:**  
Smoke, carbon monoxide, carbon dioxide and other products of incomplete combustion.

**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
Oral	LD50	11429 mg/kg (rat) (ATE)
Dermal	LD50	12366 mg/kg (ATE)
<b>112-34-5 2-(2-butoxyethoxy)ethanol</b>		
Oral	LD50	5660 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rabbit)
<b>111-90-0 Carbitol</b>		
Oral	LD50	5500 mg/kg (rat)
Dermal	LD50	8500 mg/kg (rabbit)
<b>6881-94-3 2-(2-propoxyethoxy)ethanol</b>		
Oral	LD50	6661 mg/kg (rat)
Dermal	LD50	3811 mg/kg (mouse)
		5048 mg/kg (rabbit)
<b>111-46-6 2,2'-oxybisethanol</b>		
Oral	LD50	12565 mg/kg (rat)
Dermal	LD50	11890 mg/kg (rabbit)

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- **Primary irritant effect:**
  - **on the skin:**  
May cause mild skin irritation. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis.
  - **on the eye:** Irritating effect.
  - **Ingestion:**  
May cause gastrointestinal irritation, nausea, vomiting, diarrhea.  
Result in central nervous system depression
  - **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12 Ecological information**· **Toxicity**· **Aquatic toxicity:****6881-94-3 2-(2-propoxyethoxy)ethanol**

LC50 (96 h) &gt;96 mg/l (fathead)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**· **Waste treatment methods**· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· <b>UN-Number</b>	
· DOT, IMDG, IATA	Not Regulated
· <b>UN proper shipping name</b>	
· DOT, IMDG, IATA	Not Regulated
· <b>Transport hazard class(es)</b>	
· DOT, IMDG, IATA	
· Class	Not Regulated
· <b>Packing group</b>	
· DOT, IMDG, IATA	Not Regulated
· <b>Environmental hazards:</b>	
· Marine pollutant:	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Not Regulated

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Sara

· <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients is listed.

· <b>Section 313 (Specific toxic chemical listings):</b>
143-22-6   2-[2-(2-butoxyethoxy)ethoxy]ethanol

· <b>TSCA (Toxic Substances Control Act):</b>
All ingredients are listed.

· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.

· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.

· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

112-34-5	2-(2-butoxyethoxy)ethanol
143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol
24800-44-0	1,1'-[propane-1,2-diylbis(oxy)]dipropan-1-ol
111-90-0	Carbitol
112-50-5	2-(2-(2-ethoxyethoxy)ethoxy)ethanol
6881-94-3	2-(2-propoxyethoxy)ethanol
111-46-6	2,2'-oxybisethanol

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

112-34-5	2-(2-butoxyethoxy)ethanol
143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol
111-90-0	Carbitol

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Revision Changes:**

- v 1.0 - initial SDS release (14/JUL/2015)
- v 2.0 - removed bp and voc content (11/OCT/2016)
- v 3.0 - added part number 205230 (25/NOV/2016)

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

NA