

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 12/13/2016

Revision: 12/13/2016

1 Identification

- **Product identifier**
- **Trade name:** Pentosin DOT 4 LV Bremsflüssigkeit
- **Article number:**
- **Recommended use and restriction on use**
- **Recommended use:** Brake fluid.
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
CRP Industries
35 Commerce Dr.
Cranbury, NJ 08512
(609) 578-4100
info@crpindustries.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
Eye Irrit. 2B H320 Causes eye irritation.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
- **Additional information:**
There are no other hazards not otherwise classified that have been identified.
0 % of the mixture consists of component(s) of unknown toxicity.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS08

- **Signal word:** Warning
- **Hazard statements:**
H320 Causes eye irritation.
H361 Suspected of damaging fertility or the unborn child.
- **Precautionary statements:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337+P313 If eye irritation persists: Get medical advice/attention.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **NFPA ratings (scale 0 - 4)**



Health = 1
 Fire = 1
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *1
 Fire = 1
 Reactivity = 0

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol	Eye Dam. 1, H318	2.5-5%
111-77-3	2-(2-methoxyethoxy)ethanol	Repr. 2, H361 Flam. Liq. 4, H227	1-2.5%
110-97-4	1,1'-iminodipropan-2-ol	Eye Irrit. 2A, H319	1-2.5%

· **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **General information:** No special measures required.

· **After inhalation:**

Unlikely route of exposure.

Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Gastric or intestinal disorders

Irritant to eyes.

Slight irritant effect on skin and mucous membranes.

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- **Danger:** Suspected of damaging fertility or the unborn child.
- **Indication of any immediate medical attention and special treatment needed:**
If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Cool endangered product with water spray.
Use large quantities of foam as it is partially destroyed by the product.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
For large spills, wear protective clothing.
Ensure adequate ventilation.
Particular danger of slipping on leaked/spilled product.
- **Environmental precautions** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
- **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:**
Prevent formation of aerosols.
Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
Protect from humidity and water.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:**
Keep containers tightly sealed.
This product is hygroscopic.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device when aerosol or mist is formed.
NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.
- **Protection of hands:** Protection may be required for spills.
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

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- **Body protection:** Protection may be required for spills.
- **Limitation and supervision of exposure into the environment**
No relevant information available.
- **Risk management measures**
See Section 7 for additional information.
No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Fluid
Color: According to product specification

· **Odor:** Characteristic
· **Odor threshold:** Not determined.

· **pH-value:** Slightly alkaline
· **Melting point/Melting range:** Not determined.
· **Boiling point/Boiling range:** 265 °C (509 °F)

· **Flash point:** 135 °C (275 °F)

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

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

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

· Explosion limits

Lower: Not determined.
Upper: Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.06 g/cm³ (8.846 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity

Dynamic: Not determined.
Kinematic: Not determined.

· **Other information** No relevant information available.

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10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Reacts with strong acids and oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** No relevant information available.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products** Possible in traces.

11 Toxicological information

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

- **LD/LC50 values that are relevant for classification:**

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

Oral	LD50	5500 mg/kg (rat)
Dermal	LD50	6540 mg/kg (rabbit)

- **Primary irritant effect:**
- **On the skin:** No irritant effect.
- **On the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Irritating to eyes.
- **Repeated dose toxicity:** Suspected of damaging fertility or the unborn child.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Repr. 2
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Suspected of damaging fertility or the unborn child.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.

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- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** The product contains materials that are harmful to the environment.
- **Persistence and degradability** The product is partially biodegradable. Significant residuals remain.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No 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.
Avoid transfer into the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|-------------------------------------|----------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Not regulated. |

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- | | |
|--|-----------------|
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Not regulated. |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol
111-77-3	2-(2-methoxyethoxy)ethanol

· TSCA (Toxic Substances Control Act)

143-22-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol
110-97-4	1,1'-iminodipropan-2-ol
111-77-3	2-(2-methoxyethoxy)ethanol

· Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

All ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Date of preparation / last revision** 12/13/2016 / -

· **Abbreviations and acronyms:**

ADR: 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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Flam. Liq. 4: Flammable liquids – Category 4

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

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

Repr. 2: Reproductive toxicity – Category 2

· **Sources**

SDS Prepared by:

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