

SAFETY DATA SHEET

PRODUCT NAME: VROOAM HBP FACTORY RACING BRAKE FLUID DOT4



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

1.1 Product Identifier

Trade Name : VROOAM HBP FACTORY RACING BRAKE FLUID DOT4
Product code : 63818

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

Identified Uses : Hydraulic fluid

1.3. Details of the supplier of the safety data sheet

VROOAM Powersports Lubricants INT. B.V.

Aventurijn 300
3316 LB Dordrecht (NL)
0031 (0) 78 750 1632
www.vrooam-lubricants.com
info@vrooam-lubricants.com

· Further information obtainable from: Product Safety Department

1.4. Emergency telephone number: 0031 (0) 78 750 16 32 (9 AM to 5 PM, Monday to Friday)

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1 Classification of the substance or mixture

Repr. 2; H361fd, Suspected of damaging fertility. Suspected of damaging the unborn child.

2.2 Label Elements

Labelling according to 1272/2008 (CLP/GHS)
Hazard Pictogram/s;



Signal word: Warning

Hazard statements

Suspected of damaging fertility. Suspected of damaging the unborn child. (H361fd)

Precautionary statements

General

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Prevention

Wash hands and exposed skin thoroughly after handling. (P264)

Response

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

Continue rinsing. (P305+P351+P338)

If eye irritation persists: Get medical advice/attention. (P337+P313)

IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310)

Storage

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Disposal
Dispose of contents/container in accordance with in accordance with local regulation (P501)
Hazardous substances
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate
Additional labelling
Not applicable.

2.3 Other Hazards

Additional warnings
This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.
Product is not classified as combustible but will burn.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. This product is a mixture.

3.2 Mixtures

Hazardous Ingredients

Product/substance	Identifiers	% w/w	Classification	Note
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	CAS No.: 30989-05-0 EC No.: 250-418-4 UK-REACH: Index No.:	80-95%	Repr. 2, H361fd	
Butyl Triglycol	CAS No.: 143-22-6 EC No.: 205-592-6 UK-REACH: Index No.: 603-183-00-0	10-15%	Eye Dam. 1, H318 (SCL: 30.00 %) Eye Irrit. 2, H319 (SCL: 20.00 %)	
3,6,9,12-tetraoxahexadecan-1-ol	CAS No.: 1559-34-8 EC No.: 216-322-1 UK-REACH: Index No.:	1-3%	Eye Irrit. 2, H319	
2-(2-butoxyethoxy)ethanol;	CAS No.: 112-34-5 EC No.: 203-961-6 UK-REACH: Index No.: 603-096-00-8	<1%	Eye Irrit. 2, H319	[1], [3]
2-(2-methoxyethoxy)ethanol;	CAS No.: 111-77-3 EC No.: 203-906-6 UK-REACH: Index No.: 603-107-00-6	<1%	Repr. 1A, H360D (SCL: 3.00 %)	[1], [3]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.
[3] According to UK REACH, Annex XVII, the substance is subject to restrictions.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General Advice - In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

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 and effects are described in sections 2 and 11. None known.

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

If exposed or concerned:

Get immediate medical advice/attention.

Treat according to symptoms. There is no specific antidote.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1 Extinguishing Media

Recommended: 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.

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 fire fighters

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

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should be worn - see section 8.

6.2 Environmental Precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3 Methods and materials 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.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth 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 References to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

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.

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.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Room temperature 15 to 30°C

Incompatible materials

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

7.3 Specific end use

This product should only be used for applications quoted in section 1.2.

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

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

DNEL

2-(2-butoxyethoxy)ethanol;

Long term exposure limit (8 hours) (ppm): 10

Long term exposure limit (8 hours) (mg/m³): 67,5

Short term exposure limit (15 minutes) (ppm): 15

Short term exposure limit (15 minutes) (mg/m³): 101,2

2,2'-oxybisethanol;

Long term exposure limit (8 hours) (ppm): 23

Long term exposure limit (8 hours) (mg/m³): 101

2-(2-methoxyethoxy)ethanol;

Long term exposure limit (8 hours) (ppm): 10

Long term exposure limit (8 hours) (mg/m³): 50,1

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Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.
The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

2-(2-butoxyethoxy)ethanol;

Worker; Long term exposure –systemic effects, dermal 20mg/kgBW/day
Worker; Long term exposure –systemic effects, inhalation 67mg/m³

2-(2-methoxyethoxy)ethanol;

Consumer Long term exposure –systemic effects, dermal 2.22 mg/kg bw/day
Consumer Long term exposure –systemic effects, inhalation 50.1 mg/m³

2,2' -oxybisethanol;

Worker; Long term exposure –systemic effects, dermal 43 mg/kg bw/day
Worker; Long term exposure –systemic effects, inhalation 44 mg/m³

Butyl Triglycol

Worker; Long term exposure –systemic effects, dermal 50mg/kgBW/day
Worker; Long term exposure –systemic effects, inhalation 195mg/m³

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

Worker; Long term exposure –systemic effects, dermal 8.3 mg/kgBW/day
Worker; Long term exposure –systemic effects, inhalation 29.1 mg/m³

PNEC

2-(2-butoxyethoxy)ethanol;

Sewage treatment plant, Continuous, 200mg/L
Water, Single, 3.9mg/L

2-(2-methoxyethoxy)ethanol;

Sewage treatment plant, 10000mg/L
Water, Single, 12mg/L

2,2' -oxybisethanol;

Sewage treatment plant, Continuous, 199.5mg/L
Water, Single, 10mg/L

Butyl Triglycol

Sewage treatment plant, Continuous, 200mg/L
Water, Single, 5mg/L

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

Sewage treatment plant, Continuous, 100 mg/l
Water, Single, 2.112 mg/l

8.2 Exposure Controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Do not eat, drink or smoke when handling this product.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures.

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The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

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.

Measures to avoid environmental exposure

Keep spill absorbent materials available in the workplace. If possible, clean up any spills immediately.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.



Respiratory Equipment

No specific requirements


Skin protection

No specific requirements.

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Butyl	0,3	>480	EN374-2, EN374-3, EN388	
Nitrile	0,2	>480	EN374-2, EN374-3, EN388	

Eye protection

Type	Standards	
Wear safety glasses with side shields	EN166	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Liquid

Colour

Amber

Odour / Odour threshold

Mild

pH

7-10.5

Density (g/cm³)

1.02-1.07

Kinematic viscosity

5-10 centistokes (20 °C)

Particle characteristics

Does not apply to liquids.

Phase changes

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Melting point/Freezing point (°C)
< -50
Softening point/range (waxes and pastes) (°C)
Does not apply to liquids.
Boiling point (°C)
>260
Vapour pressure
1 millibar
Relative vapour density
Testing not relevant or not possible due to the nature of the product.
Decomposition temperature (°C)
300
Data on fire and explosion hazards
Flash point (°C)
>120
Flammability (°C)
Testing not relevant or not possible due to the nature of the product.
Auto-ignition temperature (°C)
>280
Lower and upper explosion limit (% v/v)
Testing not relevant or not possible due to the nature of the product.
Solubility
Solubility in water
Completely soluble
n-octanol/water coefficient
1.5
Solubility in fat (g/L)
Testing not relevant or not possible due to the nature of the product.

9.2 Other information

Evaporation rate (n-butylacetate = 100)
0.01
Other physical and chemical parameters
No data available.
Oxidizing properties
Testing not relevant or not possible due to the nature of the product.

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as indicated.

10.2 Chemical Stability

Product is stable under normal conditions. Noted in section 7 "Handling and storage".

10.3 Possibility of hazardous reactions.

None known

10.4 Conditions to Avoid

None known

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.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity

Based on available data, the classification criteria are not met.

Oral -Based on read across data toxicity is low (LD 50 Rat >5000 mg/kg). Sparse experience indicates toxicity in man could be greater.

Inhalation - Not applicable due to low vapour pressure of product.

Dermal - Based on read across data toxicity is low (LD 50 Rabbit >3000 mg/kg).

General - Although acute toxicity of this product is low, if significant amounts are absorbed there is a risk of renal damage which could lead to kidney failure or even death. Other symptoms of overexposure include Central Nervous System effects, abdominal discomfort, metabolic acidosis and headache or nausea.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

However, repeated contact may de-fat the skin and cause dermatitis.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

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. Suspected of damaging the unborn child.

STOT-single exposure

Based on available data, the classification criteria are not met.

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.

11.2 Information on other hazards

Long term effects

Reproductive toxicity: This product contains teratogenic substances, which may produce anomalies and/or developmental defects to the human offspring. Adverse effects include: death, growth retardation, congenital disorders, delayed mental development, and functional disorders. This product contains reprotoxic substances, which may harm the reproductive capacity. Adverse effects include: sterility, effects on the sexual function, lowered effective fertility and dysfunctional menstrual cycle.

Endocrine disrupting properties

Not applicable.

Other information

None known.

SECTION 12: Ecological information

12.1 Toxicity

Product is of low ecotoxicity

Fish 96h LC50 >100mg/l (Oncorhynchus Mykiss)

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Daphnia 48h EC50 Not determined but expected to be virtually non-toxic
Algae 72h EC50 Not determined but expected to be virtually non-toxic

12.2 Persistence and degradability

Product is inherently biodegradable and is expected to be readily biodegradable based on ingredients (OECD 302B). If admitted into adapted biological water treatment plants no adverse effects of the degrading action of the live sludge are expected.

12.3 Bioaccumulative potential

Not expected to Bio-accumulate. Log POW for all main ingredients <2.0

12.4 Mobility in soil

Product is soluble in water and will be mobile in soil until degraded. Volatilisation from water to air not expected.

12.5 Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6 Endocrine disrupting properties

Not applicable.

12.7 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product is covered by the regulations on hazardous waste.
HP 4 - Irritant (skin irritation and eye damage)
HP 10 – Toxic for reproduction
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.

EWC code

16 01 13* Brake fluids

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

RUBRIEK 14: Informatie met betrekking tot het vervoer

14.1 UN No. / Class

None

14.2 UN Proper shipping name

N/A

14.3 Transport hazard classes

Land Transport

ADR Not classified

RID Not classified

Sea Transport

IMO/IMDG Not classified

Marine Pollutant No

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Air Transport

IATA/IACO Not classified

Inland waterways

ADN Not classified

14.4 Packing Group

N/A

14.5 Environmental Hazards

Not environmentally hazardous

14.6 Special precautions for user

None relevant

14.7 Transport in bulk (annex II of Marpol)

Not classified.

SECTION 15: Regulatory information

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

Restrictions for application

No special.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

REACH, Annex XVII

2-(2-methoxyethoxy)ethanol; is subject to restrictions, UK-REACH annex XVII (entry 54).

Additional information

Tactile warning.

Sources

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2 Chemical safety assessment.

No

SECTION 16: Other information

16.1 Abbreviations and acronyms used in this data sheet.

Full text of H-phrases as mentioned in section 3

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.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

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ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 CAS = Chemical Abstracts Service
 CE = Conformité Européenne (European conformity)
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 CSA = Chemical Safety Assessment
 CSR = Chemical Safety Report
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EINECS = European Inventory of Existing Commercial chemical Substances
 ES = Exposure Scenario
 EUH statement = CLP-specific Hazard statement
 EWC = European Waste Catalogue
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IARC = International Agency for Research on Cancer (IARC)
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 OECD = Organisation for Economic Co-operation and Development
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 RRN = REACH Registration Number
 SCL = A specific concentration limit
 SVHC = Substances of Very High Concern
 STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
 STOT-SE = Specific Target Organ Toxicity - Single Exposure
 TWA = Time weighted average
 UN = United Nations
 UVBC = Unknown or variable composition, complex reaction products or of biological materials
 VOC = Volatile Organic Compound
 vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

This data sheet is available in other European Languages.

Data sheets for other areas of the Globe may be available on request.

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The safety data sheet is validated by

Christopher Coulthard

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety

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data sheet cannot be used as a product specification.