

SAFETY DATA SHEET

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Brake fluid [G]LINE DOT 5.1

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant identified uses: use for car as brake fluid.

Uses advised against: not available.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer:

UAB Greenlab Solutions, Gedimino 50, LT-01110, Vilnius, Lithuania

Electronic mail address of the person, responsible for the safety data sheet:

E-mail: redzinaldas.mickus@greenlab.lt

1.4. HELPDESK TELEPHONE NUMBER:

Poison Control Centre (Austria)

Tel. No.: +43 1 406 4343

Antigif Centrum Centre Antipoisons (Belgium)

Tel. No.: +32 070 245 245

National Toxicology Center, Hospital for Active Medical Treatment and Emergency Medicine "N.I.Pirogov" (Bulgaria)

Tel. No. / fax.: +359 2 9154 233

Poison Control Centre (Croatia)

Tel. No.: +385 1 234 8342

Toxicological Information Centre (Czech Republic)

Tel. No.: +420 224 919 293 / +420 224 915 402

Poison Control Hotline (Denmark)

Tel. No.: +45 82 12 12 12

Poisoning Information Centre (Estonia)

Tel. No.: +372 626 93 90

Poison Information Centre (Finland)

Tel. No.: +358 09 471 977

ORFILA (INERIS) (France)

Tel. No.: +33 (0) 1 45 42 59 59

Health Toxicological Information Service (Hungary)

Tel. No.: +36 80 20 11 99

Poison Centre (Iceland)

Tel. No.: +354 543 2222

National Poisons Information Centre (Ireland)

Tel. No.: +353 (0)1 809 2566 / +353 (0)1 837 9964

Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs (Latvia)

Tel. No.: +371 670 42473

Health Emergency Situations Centre of the Ministry of Health, Poison Information Bureau (Lithuania)
Tel. No.: +370 5 236 20 52, mob.: +370 687 53378

Mater Dei Hospital (Malta)
Tel. No.: +356 2545 0000

National Poisons Information Centre (NVIC) (Netherlands)
Tel. No.: +31 (0) 30 274 8888

Mental Health Helpline (Norway)
Tel. No.: +47 22 59 13 00

Instituto Nacional de Emergência Médica (Portugal)

Tel. No.: +351 213 303 271

Biroul RSI si Informare Toxicologica (Romania)
Tel. No.: +40 021 318 3606

National Toxicological Information Centre (NTIC) (Slovakia)
Tel. No.: +421 2 5477 4166

Toxicology Information Service (Spain)
Tel. No.: +34 91 562 04 20

Swedish Poisons Information Centre (Sweden)
Tel. No.: +46 08 331231

Health and Safety Executive (HSE) (United Kingdom)
Tel. No.: +44 0151 922 9235

Section 2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

Repr. 2; H361

2.1.2. Additional information:

For full text of Hazard- and EU Hazard-statements: see section 16.

2.2. LABEL ELEMENTS

2.2.1. Label according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



Signal word: Warning

Hazard statements:

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements:

P201 Obtain special instructions before use.

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/container of as hazardous waste in accordance with local/regional/national/international regulations.

Supplemental Hazard information (EU): none.

2.3. OTHER HAZARDS

The product does not meet the criteria for PBT/vPvB according to Regulation (EC) No. 1907/2006.

Section 3. COMPOSITION INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Not applicable.

3.2. MIXTURES

Substance	REACH registration No.	CAS No.	EC No.	Classification: according EC No. 1272/2008 (CLP)	Concentration
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	01-2119462824-33-0006	30989-05-0	250-418-4	Repr. 2; H361 (development)	30-70 %
2-(2-methoxyethoxy) ethanol	01-2119475100-52-0008	111-77-3	203-906-6	Repr. 2; H361d	0.4-1.5 %
Methyl-1H-benzotriazole	–	29385-43-1	249-596-6	Acute Tox. 4; H302	<0.1 %
2,6-di-tert-butyl-p-cresol	–	128-37-0	204-881-4	STOT SE 3; H335	<0.1 %
2-(2-(2-methoxyethoxy)ethoxy) ethanol	01-2119475101-50-0011	112-35-6	203-962-1	Not Classified.	22-39 %
Reaction mass of 3,6,9,12-tetraoxotridecan-1-ol and 3,6,9,12,15-pentaoxahexadecan-1-ol	–	–	915-389-0	Not Classified.	10-28 %

Additional information: for full text of H-statements: see section 16.

Section 4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

General information. If adverse health effects develop, seek medical attention.

Following inhalation. After inhalation of vapour, remove the person from exposure area to fresh air. Consult doctor in case of complaints.

Following skin contact. Flush contaminated skin with plenty of water with soap. Get medical attention if symptoms occur.

Following eye contact. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Following ingestion. If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Self-protection of the first aider: to care for their own safety.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. The effects might be delayed.

In case an intoxication is suspected, National Poisons Information Centre should be addressed immediately, number of Emergency telephone see in section 1.4.

Section 5. FIREFIGHTING MEASURES

General fire hazards. Clear fire area of all non-emergency personnel.

5.1. EXTINGUISHING MEDIA.

Suitable extinguishing media. Choose extinguishing media suitable for surrounding fire. Alcohol-resistant foam, dry chemical powder, carbon dioxide (CO₂), water mist.

Unsuitable extinguishing media. Water in a jet.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE.

Hazardous combustion products. The product is stable if stored and handles as prescribed / indicated.

5.3. ADVICE FOR FIREFIGHTERS

Special protective equipment for firefighters. Fire-fighters should wear self-contained breathing apparatus and suitable protective clothing.

Special firefighting procedures. Move packages away from the fire area, if it can be done without risk. Use water mist for cooling unopened packages. Cooling packages by pouring sufficient water and after fire go out.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1. For non-emergency personnel. Put on appropriate personal protective equipment. Avoid breathing vapour. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. No flares, smoking or flames in hazard area. For personal protection, see Section 8.

6.1.2. For emergency responders. Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. ENVIRONMENTAL PRECAUTIONS

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil).

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For containment: avoid creating vapours conditions. For cleaning up: Absorb or contain liquid with sand, earth or spill control material. Collect and place in a labelled sealable container for subsequent safe disposal. Flush contaminated area with plenty of water. Put leaking containers in a labelled drum. Other information: Dispose of via a licensed waste disposal contractor.

6.4. REFERENCE TO OTHER SECTIONS

For personal protection, see Section 8. For waste disposal, see section 13.

Section 7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING.

Advice on safe handling. Put on appropriate personal protective equipment (see Section 8). Avoid contact with skin. Avoid breathing vapour. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Advice on protection against fire and explosion. Keep away from heat. Keep away from sources of ignition.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10), food and drink. Keep container closed and sealed until ready for use. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3. SPECIFIC END USE(S)

None.

Section 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

8.1.1. Occupational exposure limits.

GESTIS International Limit Values:

Substance, CAS No.	Country	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
2-(2-methoxyethoxy)ethanol, CAS No. 111-77-3	Austria	10	50.1	–	–
	Belgium	10	50.1	–	–
	European Union	10	50.1	–	–
	Finland	10	50	–	–
	France	10	50.1	–	–
	Germany (AGS)	10 (1)	50 (1)	–	–
	Hungary	–	50.1	–	–
	Ireland	10	50.1	–	–
	Latvia	20	100	–	–
	Lithuania	10 (R)(O)	50.1 (R)(O)	–	–
	Poland	–	50	–	–

(1) – Inhalable aerosol and vapour; (R) - toxic for reproduction, (O) - The substance can enter the body through intact skin.

Recommended monitoring procedures. Follow standard monitoring procedures.

8.1.2. Biological limit values. No biological exposure limits noted for the ingredient.

8.2. EXPOSURE CONTROLS

8.2.1. Appropriate engineering controls. Provide adequate ventilation and minimise the risk of inhalation of vapour.

8.2.2. Personal protection equipment

General information. Use personal protective equipment as required. Keep working clothes separately. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

8.2.2.1. Eye/face protection. Wear protective goggles with side-shields according to EN 166.

8.2.2.2. Skin protection:

Hand protection. Protective gloves (PVC, butyl rubber, neoprene rubber, Viton or nitrile rubber). See information supplied by the manufacturer (EN 374).

Other skin protection. Wear protective work clothing.

8.2.2.3. Respiratory protection. General ventilation normally adequate. In case of inadequate ventilation or risk of inhalation of vapour, suitable respiratory equipment (breathing mask). Seek advice from local supervisor (EN 149).

8.2.2.4. Thermal hazards: Not applicable.

Hygiene measures. Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink, or smoke. Wash hands before breaks and after work.

8.3. ENVIRONMENTAL EXPOSURE CONTROLS

Defined as a volatile organic chemical under directive 99/13. No special limits apply.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	liquid
COLOUR:	from light yellow to light brown
ODOUR:	specific
ODOUR THRESHOLD:	not available
pH:	7.0-11.5
MELTING POINT/FREEZING POINT:	< (-70) °C
INITIAL BOILING POINT AND BOILING RANGE:	260-275 °C
FLASH POINT:	125 °C
EVAPORATION RATE:	not applicable
FLAMMABILITY (SOLID, GAS):	not applicable
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	160/116 °C
VAPOUR PRESSURE:	not available
VAPOUR DENSITY:	not available
RELATIVE DENSITY:	~1.07 kg/l (at 20 °C)
SOLUBILITY:	soluble
PARTITION COEFFICIENT (N-OCTANOL/WATER):	not applicable
AUTO-IGNITION TEMPERATURE:	~246 °C
DECOMPOSITION TEMPERATURE:	not available
VISCOSITY:	≤1100 mm ² /s °C (at -40 °C)
EXPLOSIVE PROPERTIES:	not explosive
OXIDISING PROPERTIES:	may oxidize

9.2. OTHER INFORMATION

No additional information.

Section 10. STABILITY AND REACTIVITY

10.1. REACTIVITY

The product is non-reactive under normal conditions of use, storage and transport.

10.2. CHEMICAL STABILITY

Stable at normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous reactions do not occur.

10.4. CONDITIONS TO AVOID

High temperatures and sources of ignition.

10.5. INCOMPATIBLE MATERIALS

Oxidising agents, acids.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

May produce hazardous fumes like carbon monoxide, carbon dioxide and etc.

Section 11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity:

2-(2-methoxyethoxy)ethanol, CAS No. 111-77-3:

Oral: LD50 – 7128 mg/kg (mouse);
Inhalation: LC50 – 1.91 mg/l/6h (rat);
Dermal: LD50 – 9404 mg/kg (rabbit).

2-(2-(2-methoxyethoxy)ethoxy)ethanol, CAS No. 112-35-6:

Oral: LD50 – >10500 mg/kg (rat);
Inhalation: LC0 – >10 mg/l/8h (rat);
Dermal: LD50 – 7100 mg/kg (rabbit).

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate, CAS No. 30989-05-0:

Oral: LD50 – >2000 mg/kg (rat);
Dermal: LD50 – >2000 mg/kg (rat).

Methyl-1H-benzotriazole, CAS No. 29385-43-1:

Oral: LD50 – 720 mg/kg (rat).

2,6-di-tert-butyl-p-cresol, CAS No. 128-37-0:

Oral: LD50 – >5000 mg/kg (rat);
Dermal: LD50 – >5000 mg/kg (rat).

Skin corrosion/irritation. Not classified.
Serious eye damage/irritation. Not classified.
Respiratory or skin sensitisation. Not classified.
Germ cell mutagenicity. Not classified.
Carcinogenicity. Not classified.
Reproductive toxicity. Suspected of damaging fertility or the unborn child.
STOT-single exposure. Not classified.
STOT-repeated exposure. No data available.
Aspiration hazard. Not classified.

11.2. OTHER INFORMATION

None.

Section 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

2-(2-methoxyethoxy)ethanol, CAS No. 111-77-3:

LC50 (freshwater fish): 5741 mg/l/96h;
EC50/LC50 (freshwater invertebrates): 1192 mg/l/48h;
EC50/LC50 (freshwater algae): 1000 mg/l/96h.

2-(2-(2-methoxyethoxy)ethoxy)ethanol, CAS No. 112-35-6:

LC50 (fish): 11 mg/l/96h (Cyprinodon variegatus);
NOEC: 133 g/l/30d.;
EC50 (invertebrates): >500 mg/l/48h (Daphnia magna);
NOEC: 3152 g/l;
EC50 (algae): >500 mg/l/72h (Desmodesmus subspicatus).

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate, CAS No. 30989-05-0:

LC50 (fish): >1010 mg/l/96h (Oncorhynchus mykiss);
EC50 (invertebrates): >500 mg/l/48h (Daphnia magna);
EC50 (algae): >224.4 mg/l/72h (Pseudokirchneriella subcapitata).

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate, CAS No. 30989-05-0:

LC50 (fish): >1010 mg/l/96h (Oncorhynchus mykiss);
EC50 (invertebrates): >500 mg/l/48h (Daphnia magna);

EC50 (algae): >224.4 mg/l/72h (Pseudokirchneriella subcapitata).

Methyl-1H-benzotriazole, CAS No. 29385-43-1:

LC50 (freshwater fish): 64 mg/l (Danio rerio);

EC50 (invertebrates): >37.6 mg/l/48h (Daphnia magna);

NOEC (invertebrates): 18.4 mg/l;

EC50 (freshwater algae): 32 mg/l/72h (Desmodesmus subspicatus).

2,6-di-tert-butyl-p-cresol, CAS No. 128-37-0:

LC50 (freshwater fish): ≥0.57 mg/l/96h (Danio rerio);

EC50 (invertebrates): 0.61 mg/l/48h (Daphnia magna);

IC50 (algae): 0.4 mg/l/72h (Desmodesmus subspicatus).

12.2. PERSISTENCE AND DEGRADABILITY

Not available.

12.3. BIOACCUMULATIVE POTENTIAL

Not available.

12.4. MOBILITY IN SOIL

Not available.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

Not a PBT or vPvB substance or mixture.

12.6. OTHER ADVERSE EFFECTS

No known significant effects or critical hazards.

Section 13. DISPOSAL CONSIDERATION

13.1. WASTE TREATMENT METHODS

Residual waste. Dispose of contents/container with local/regional/national/international regulations.

Contaminated packaging. Not available.

EU waste code. Not available.

Disposal methods/information. Review federal, state/provincial, and local government requirements prior to disposal.

Section 14. TRANSPORT INFORMATION

Transport only in accordance with ADR for road haulage, RID for rail transportation, ADN/IMDG for carriage by vessel/sea and IATA for carriage by air.

14.1. UN number. Not regulated.

14.2. UN proper shipping name. Not regulated.

14.3. Transport hazard class (-es). Not regulated.

14.4. Packing group. Not regulated.

14.5. Environmental hazards. No.

14.6. Special precautions for user. Before use read the safety instructions in the safety data sheet and emergency procedures.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code. Not applicable.

Section 15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

- Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No.793/93, Commission Regulation (EC) No. 1488/94, Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union No. L 396, 30-12-2006, error correction – No. L 136/3, 2007-5-29);
- COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 132, 29.5.2015, p. 8–31);
- On 16 December 2008 the Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of chemical substances and mixtures was undersigned. The said Regulation amended and repealed the directives 67/548/EEC and 1999/45/EC and Regulation (EC) No. 1907/2006 (the REACH Regulation). The Regulation has been published in the Official Journal of the European Union No. L 353, volume 51 on 31 December, 2008;
- COMMISSION REGULATION (EU) 2016/918 of 19 May 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures. The Regulation has been published in the Official Journal of the European Union No. L 156, on 14 June, 2016;
- The European Agreement concerning International Carriage of Dangerous Goods by Road (ADR).

15.2. CHEMICAL SAFETY ASSESSMENT

For this product a chemical safety assessment has not been carried out.

Section 16. OTHER INFORMATION

16.1. INDICATION OF CHANGES

Information contained in the Regulation 1907/2006/EC with the Regulation 830/2015.

Indication of changes: –.

Date of filling: 13-03-2020

Revision: –.

Version No.: 1

16.2. FULL TEXT OF HAZARD AND PRECAUTIONARY STATEMENTS

H302 Harmful if swallowed.

H335 May cause respiratory irritation.

H361 Suspected of damaging fertility or the unborn child.

H361d Suspected of damaging the unborn child.

P201 Obtain special instructions before use.

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/container of as hazardous waste in accordance with local/regional/national/international regulations.

Supplemental Hazard information (EU): none.

Abbreviations:

Acute Tox. 4 – Acute toxicity (oral); Hazard Category 4.

Eye Irrit. 2 – Eye irritation; Hazard Category 2.

Repr. 2 – Reproductive toxicity; Hazard Category 2.

STOT SE 3 – Specific target organ toxicity after single exposure; Hazard Category 3.

Acronyms:

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID – Regulations concerning the International Carriage of Dangerous Goods by Rail.

IMDG – International Maritime Dangerous Goods.

IATA – International Air Transport Association.
IMO – International Maritime Organization.
vPvB – Very Persistent and Very Bioaccumulative.
PBT – Persistent, Bioaccumulative and Toxic substance.
LC50 – Lethal Concentration to 50 % of a test population.
LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose).
EC50 – Effective concentration to 50% of a test population (half maximal effective concentration).
IC50 – Inhibitory concentration to 50% of a test population (half maximal inhibitory concentration).
CAS – Chemical Abstracts Service number.
CEN – European Committee for Standardisation.
STOT – Specific Target Organ Toxicity.
PNEC(s) – Predicted No Effect Concentration(s).
ACGIH – Association advancing occupational and environmental health.
NIOSH – National Institute of Occupational Safety and Health.
SDS – Safety Data Sheet.

KEY LITERATURE REFERENCES AND SOURCES FOR DATA:

- The data provided by the European Chemicals Bureau (ECB), European Chemicals Agency (ECHA), Swedish Chemicals Agency (KEMI), International Laboratories Organization (ILO), the TOXNET Internet pages.

Disclaimer

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