

SAFETY DATA SHEET

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

1.1 PRODUCT IDENTIFIER. PRODUCTS TRADE NAMES AND ARTICLES:

1) **VERYLUBE Complex fuel system cleaner for diesel engine** (Art. XB 30025, XB 30125),

2) **VERYLUBE Protection of the particulate filter for diesel engine** (Art. XB 30027)

EC №, CAS №: mixture (see section 3). Molecular formula, IUPAC name: n/d. Ingredients REACH numbers: see section 3

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

IDENTIFIED USES: Additive for automobile engine fuel system. Consumer and professional use.

USES ADVISED AGAINST: N/d.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

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SECTION 2. HAZARD IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE ACCORDING TO GHS and REGULATION (EC)

№ 1272/2008/EC:

Flam. Liq. 3, H226

Asp. Tox. 1; H304

Aquatic Chronic 2; H411

STOT SE 3; H336

ADDITIONAL INFORMATION: The wording of H-statements is specified in section 16. Specific concentration limits and M-factors: see section 3.

HUMAN HEALTH AND ENVIRONMENTAL EFFECTS:

Inhalation	May cause drowsiness and dizziness.
Eyes effect	Expect no more than mild irritation with short-term contact.
Skin effect	Repeated exposure may cause skin dryness or cracking.
Ingestion	May be fatal if swallowed and enters airways
Environmental effect	Toxic to aquatic life with long lasting effects

2.2 LABEL ELEMENTS ACCORDING TO GHS and REGULATION (EC) № 1272/2008/EC:



Signal Word, H-phrases, P-phrases:

Danger.

H226: Flammable liquid and vapour.

H336: May cause drowsiness or dizziness.

H304: May be fatal if swallowed and enters airways

H411: Toxic to aquatic life with long lasting effects

P102: Keep out of reach of children.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261: Avoid breathing vapours.

P280: Wear protective gloves and eye protection.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331: Do NOT induce vomiting

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P303+361+353: IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.

P273: Avoid release to the environment.

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

Contains solvent naphtha (petroleum), medium aliphatic.

2.3 OTHER HAZARDS: Results of PBT and vPvB assessment: not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

SUBSTANCE OR MIXTURE: Mixture.

CHEMICAL CHARACTERIZATION OF THE PRODUCT: solvents naphtha and additives.

HAZARDOUS INGREDIENTS:

Name	CAS №	EC №	Index №, REACH registration №	Concentra- tion (wt. %)	Classification according to 1272/2008/EC
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	265-191-7	Index № 649- 405-00-X	75 - 90	Flam. liq.; H226// Asp. Tox.1; H304// STOT SE 3; H336// Aquatic acute 2; H411
2-ethylhexyl nitrate	27247-96-7	248-363-6	REACH №: 01- 2119539586-27	1 – <10	Acute tox. 4; H332//Acute tox. 4; H312// Acute Tox. 4; H302// EUH044// EUH066// Aquatic Chronic 2; H411
2-Ethylhexan-1-ol	104-76-7	203-234-3	REACH №: 01- 2119487289-20	1 – <5	Acute Tox. 4 (Inhalation - mist); H332// Skin Irrit. 2; H315// Eye Irrit. 2 H319 STOT SE 3 (irr. to respiratory syst.); H335
Hydrocarbons, C10, aromatics	-	919-284-0	REACH №: 01- 2119463588-24	1 – <5	Asp. Tox.1; H304// STOT SE 3; H336 Aquatic chronic 2; H411// EUH066
Naphthalene	91-20-3	202-049-5	Index № 601- 052-00-2	<1	Acute Tox. 4 (oral); H302// Carc. 2 H351//Aquatic Acute 1; H400// Aquatic Chronic 1; H410//M-factor acute: 1 M-factor chronic: 1

The wording of the H-statements is specified in section 16. Occupational exposure limit values are listed in section 8.

SECTION 4. FIRST-AID MEASURES

4.1 DISCRIPTION OF FIRST-AID MEASURES

IF INHALED: Fresh air, rest. If difficulties occur after vapour/aerosol has been inhaled seek medical advice.

ON SKIN CONTACT: Wash thoroughly exposed skin with soap and water. Seek medical advice.

ON CONTACT WITH EYES: Immediately rinse open eyes with running water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention, if irritation occurs.

ON INGESTION: Immediately flush mouth thoroughly and then drink plenty of water. Immediately seek medical advice and show this safety data sheet. Do not induce vomiting without medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Never give anything by mouth to an unconscious person.

4.2 MOST IMPORTANT SYMPTOMPS AND EFFECTS, BOTH ACUTE AND DELAYED: See sections 2 and 11.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treatment: treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA SUITABLE EXTINGUISHING MEDIA: Foam, dry extinguishing media, water spray. EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS: Full waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

SPECIFIC HAZARD: N/d. HAZARDOUS COMBUSTION PRODUCTS: CO and others.

5.3 ADVICE FOR FIREFIGHTERS SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Self-contained breathing apparatus, special fire-fighting clothing (including helmets, protective boots and gloves).

SPECIFIC METHODS: Move container away or cool with water spray jet from a protected position.

Prevent water used in emergency cases from entering sewers and drainage systems.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, POTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Only personnel, eliminating accident consequences, can stay stay in the area. Use personal protection equipment. Ensure adequate ventilation of the area. Eliminate leakage observing safety precautions.

Attention: Risk of slipping due to leakage/spillage of the product.

6.2 ENVIRONMENTAL PRECAUTIONS Prevent spread over a wide area. Do not allow to enter sewers and drainage systems/surface waters/groundwater/soil. Inform local authorities when the product has entered sewers or drainage systems, soil or surfacewater.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Gather not-contaminated product and use for intended purpose. The waste must be covered with sand, placed in containers for chemical waste and disposed of according to section 13 of this Safety data sheet. Clean contaminated area with a water-diluted soap. **6.4 REFERENCE TO OTHER SECTIONS:** See also section 8.2.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING Observe the occupational safety rules and personal hygiene rules. Do not eat in work area. Do not smoke. Take precautionary measures against static discharges. See also section 2.2.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

STORAGE: Store the product in original, not damaged tightly closed package, in a well-ventilated cool and dry area. Storage temperature: -40 °C...+50 °C. **INCOMPATIBLE MATERIALS:** Oxidizing agents, alkalis.

REQUIREMENTS FOR THE PACKAGING: The packaging must be strong, leakproof, and good for transportation. **FURTHER INFORMATION ON STORAGE CONDITIONS:** Do not store at direct sunlight.

7.3 SPECIFIC END USE(S): None.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS National occupational exposure limits:

Country (standard)	Substance name	CAS №, EC №	Occupational exposure limit value, 8 hours		Occupational exposure limit value, short term	
			mg/m ³	ppm	mg/m ³	ppm
France (INRS ED 984)	Naphthalene	CAS № 91-20-3, EC № 202-049-5	VME = 50	VME = 10	-	-
Spain (INSHT 2009)	Naphthalene	CAS № 91-20-3, EC № 202-049-5	VLA-ED = 53	VLA-ED = 10	-	-
Latvia (LVS 89:2004)	Naphthalene	CAS № 91-20-3, EC № 202-049-5	AER = 50	AER = 10	-	

8.2 EXPOSURE CONTROLS ENGINEERING CONTROLS: Work places must be well ventilated. Provide the places with local or general circulating ventilation system. Ensure that eyewash stations and safety showers are located close to the workstation. **RESPIRATORY PROTECTION:** Respirator EN 141 with filters type A.

HAND AND SKIN PROTECTION: During handling with the product, use correspondent protective clothing and gloves. Gloves: nitrile rubber (NBR), thickness 0,4 mm, typical breakthrough time >30 minutes (EN 374). Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

EYE PROTECTION: Wear protective goggles (EN 166). **GENERAL HEALTH AND SAFETY MEASURES:** See section 7.1. **ENVIRONMENTAL EXPOSURE CONTROLS:** See section 13.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

AGGREGATE STATE:	liquid
COLOR:	from yellow to light-brown
ODOUR:	characteristic
ODOUR THRESHOLD:	no information available
HYDROGEN ION CONCENTRATION (pH):	not applicable
MELTING POINT/FREEZING POINT, °C:	no information available
INITIAL BOILING POINT AND BOILING RANGE, °C:	no information available
FLASH POINT IN THE CLOSED CUP, °C:	>23
EVAPORATION RATE:	no information available
FLAMMABILITY (SOLID, GAS):	flammable liquid
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS, % vol.	no information available
VAPOR PRESSURE, kPa	no information available
VAPOR DENSITY	no information available
RELATIVE DENSITY, kg/m ³ :	≥780 at 20 °C
SOLUBILITY(IES):	not soluble in water
PARTITION COEFFICIENT: N-OCTANOL/WATER (Log Pow)	no information available
AUTO-IGNITION TEMPERATURE, °C	no information available
DECOMPOSITION TEMPERATURE, °C:	no information available
KINEMATIC VISCOSITY, mm ² /s	no information available
EXPLOSIVE PROPERTIES:	no information available
OXIDISING PROPERTIES:	no information available

9.2 OTHER INFORMATION: None.

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY: None under normal conditions.

10.2 CHEMICAL STABILITY: Following strictly the rules of handling with the product and safety regulations, the product stays stable.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: None under normal conditions.

10.4 CONDITIONS TO AVOID: See section 7 and 2. **10.5 INCOMPATIBLE MATERIALS:** See section 7.2.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: No hazard decomposition products if stored and handled as prescribed/indicate.

SECTION 11. TOXICOLOGIC INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

11.1.1 Acute toxicity: Based on available data, the classification criteria are not met.

Toxicological properties of the ingredients of the product: *For 2-ethylhexyl nitrate, CAS № 27247-96-7:*

Exposure	Value	Exposure time period	Species	Method
oral	LD50 > 2000 mg/kg	-	rat	no information available

For solvent naphtha, CAS № 64742-88-7:

Exposure	Value	Exposure time period	Species	Method
inhalation	LC50 > 5.5 mg/l	4 hours	rat	GLP
dermal	LD0 > 3000 mg/kg bw	-	rabbit	OECD Guide-Line 402 and GLP

11.1.2 Skin corrosion/irritation: Based on available data, the classification criteria are not met.

For 2-ethylhexyl nitrate, CAS № 27247-96-7: Primary skin irritation rabbit (OECD Guideline 404): non-irritant. Primary irritations of the mucous membrane rabbit (OECD Guideline 405): non-irritant.

11.1.3 Serious eye damage/irritation: Based on available data, the classification criteria are not met.

11.1.4 Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

11.1.5 Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

11.1.7 Reproductive toxicity: Based on available data, the classification criteria are not met.

11.1.8 STOT-single exposure: May cause drowsiness or dizziness.

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

11.1.10 Aspiration hazard: May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

Aquatic toxicity	Effect dose	Exposure time	Species
Acute fish toxicity (<i>for 2-ethylhexyl nitrate, CAS № 27247-96-7</i>)	LC ₅₀ = 1-10 mg/l	24 hours	No information available

12.2 PERSISTENCE AND DEGRADABILITY: Biological degradability: *For 2-ethylhexyl nitrate, CAS № 27247-96-7:* poorly biodegradable. *For the product without 2-ethylhexyl nitrate:* expected readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL: *For solvent naphtha, CAS № 64742-88-7:* has the potential to bioaccumulate. *For 2-ethylhexyl nitrate, CAS № 27247-96-7:* Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible. **12.4 MOBILITY IN SOIL:** N/d. **12.5 RESULTS OF PBT AND vPvB ASSESSMENT:** Not applicable. **12.6 OTHER ADVERSE EFFECTS:** N/d.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS 13.1.1 **PRODUCT/PACKAGING DISPOSAL** Waste material must be disposed of in accordance with local/regional/national/international regulations.

WASTE DISPOSAL: European waste code: 13 07 03 (wastes of liquid fuels; other fuels (including mixtures)). Must not be disposed together with household garbage.

DISPOSAL OF CONTAMINATED/DAMAGED PACKAGE: Packaging with product residues must be utilized with its waste. Package European waste code: 15 01 10 (packaging containing residues of or contaminated by dangerous substances); 15 01 04 (metallic packaging).

13.1.2 **WASTE TREATMENT-RELEVANT INFORMATION:** See handling with the product (section 7).

13.1.3 **SEWAGE DISPOSAL-RELEVANT INFORMATION:** Do not allow product to reach sewage system.

SECTION 14. TRANSPORT INFORMATION

The product is transported by air, railway, road or marine transport in compliance with the rules for this mode of transportation. The product is stored in the original packages.

Land transport (ADR/RID):

UN-nr 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (contains solvent naphtha and 2-ethylhexyl nitrate)

Class	3
Classification code	F1
Packing group	III
Hazard label(s)	3
Environmental hazard	Yes
Special provision(s)	None
<u>Marine transport (IMDG/IMO):</u>	
UN-nr	1993
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains solvent naphtha and 2-ethylhexyl nitrate)
Class	3
Packing group	III
Hazard label(s)	3
Marine pollutant	Yes
Special provision(s)	None
EMS	F-E, S-E
<u>Air transport (ICAO/IATA):</u>	
UN-nr	1993
Proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (contains solvent naphtha and 2-ethylhexyl nitrate)
Class	3
Packing group	III
Hazard label(s)	3
Environmental hazard	Yes
Special provision(s)	None

SECTION 15. REGULATORY INFORMATION

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

VOLATILE ORGANIC COMPOUNDS (VOC): The product is not in the scope of Directive 1999/13/EC and Directive 2004/42/EC.

VOLATILE ORGANIC COMPOUNDS ACCORDING SWITZERLAND LEGISLATION (VERORDNUNG ÜBER DIE LENKUNGSABGABE AUF FLÜCHTIGEN ORGANISCHEN VERBINDUNGEN (VOCV) 814.018)

The product ingredients doesn't refer to The Positive List of substances (Stoff-Positivliste (der Abgabe unterstellte flüchtige organische Verbindungen, VOC)).

REGULATIONS:

- GHS 05 (Globally Harmonized System of Classification and Labelling of Chemicals, Rev.05);
- ISO 11014:2009 Safety data sheet for chemical products – content and order of sections;
- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH);
- Regulation (EC) No 1272/2008/EC (CLP);
- Regulation (EU) No 453/2010;
- Commission regulation (EU) 2015/830;
- European commission directive 2009/161/EU list of occupational exposure limit values.
- European waste codes regulations: Commission decision of 3 May 2000 and Council Decision 94/904/EC;
- ADR 2017 (European agreement concerning the international carriage of dangerous goods by road).

15.2 CHEMICAL SAFETY ASSESSMENT: No data available for the product.

SECTION 16. OTHER INFORMATION

THE WORDING OF THE H-STATEMENTS AS INDICATED IN SECTIONS 2 AND 3:

H226: Flammable liquid and vapour H302: Harmful if swallowed H304: May be fatal if swallowed and enters airways H312: Harmful in contact with skin H315: Causes skin irritation H319: Causes serious eye irritation H332: Harmful if inhaled H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H351: Suspected of causing cancer H400: Very toxic to aquatic life H410: Very toxic to aquatic life with long lasting effects H411: Toxic to aquatic life with long lasting effects EUH066: Repeated exposure may cause skin dryness or cracking EUH044 Risk of explosion if heated under confinement

EVALUATION OF HAZARD INFORMATION FOR SUBSTANCES AND MIXTURES:

Classification of mixtures when data are available for all components or only for some components of the mixture, the theory of additivity (according to article 9 of Regulation (EC) No 1272/2008).

CHANGES AS COMPARED WITH PREVIOUS SDS VERSION: Section 3

USED ABBREVIATION:

GHS - Globally Harmonized System of Classification and Labelling of Chemicals.

PBT and vPvB - "Persistent, Bioaccumulative and Toxic" and "very Persistent and very Bioaccumulative".

OECD - Organization for Economic Co-operation and Development.

SDS – Safety data sheet.

SOURCES OF INFORMATION:

- site European Chemicals Agency (<http://apps.echa.europa.eu>),
- site The Information system on hazardous substances of the German Social Accident Insurance (GESTIS) (<http://gestis-en.itrust.de/>),
- site United Nation Economic Commission for Europe (<http://www.unece.org/>),
- Safety data sheets.

OTHER INFORMATION:

All information in this SDS is based on our current knowledge by the time of making SDS. Neither should any agreed property nor the suitability of the product for any specific purpose be deducted from the data contained in the safety data sheet.

It is an obligation for the users to use this product with care and to observe the applicable laws and regulations concerning the use of this kind of products. The company does not assume responsibility for deficiencies, damages or injuries resulted from non-compliance to the safety and other measurements of this Safety data sheet, nor for any defect or risk ensuing from the nature of the product, nor for abnormal applications of the product.

If the product is purchased with the aim to its further supply to the third party, the buyer must provide any person, handling with this product, with the information contained in this safety data sheet. The employers must inform their employees and other people, who can be exposed to any danger described in this Safety data sheet, about the necessary precautionary measures.

End of the document.

XADO–Technology Ltd. research engineer _____ D.A. Shaposhnikov