2005 Diesel Purge

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard and the Hazardous Products Regulation (WHMIS 2015)

Issue date: 3/2/2024 Revision date: 3/2/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Trade name	:	2005 Diesel Purge
Product code	:	

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Fuel additives
Restrictions on use	:	None known

1.3. Supplier

Liqui Moly GmbH
Jerg-Wieland-Strasse 4 Ulm D-89081 Germany
T +49 731 1420 0
info@liqui-moly.de - www.liqui-moly.us

1.4. Emergency telephone number

Emergency number	:	INFOTRAC +1800 535 5053 (USA, Canada); +1352 323 3500 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4	H227	Combustible liquid
Aspiration hazard Category 1	H304	May be fatal if swallowed and enters airways
Hazardous to the aquatic environment – Acute Hazard Category 3	H402	Harmful to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 3	H412	Harmful to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US)	:	Danger
Hazard statements (GHS US)	:	H227 - Combustible liquid H304 - May be fatal if swallowed and enters airways H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS US)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P280 - Wear protective gloves. P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor. P331 - Do NOT induce vomiting. P370+P378 - In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None known.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Distallates (petroleum), hydrotreated light	CAS-No.: 64742-47-8	80-100
2_Ethylhexyl_nitrate	CAS-No.: 27247-96-7	7-13

Comments : *Chemical name, CAS number and/or exact concentration have been withheld as a trade secret
Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact : Wash skin with mild soap and water. Get medical advice if skin irritation persists.
First-aid measures after eye contact : Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion : Aspiration hazard. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Seek immediate medical advice.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May be fatal if swallowed and enters airways.
Inhalation : Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.
Skin : Repeated or prolonged skin contact may cause dermatitis and defatting.
Eyes : May cause minor eye irritation.
Ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.
Chronic symptoms : None known.

4.3. Immediate medical attention and special treatment, if necessary

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Use of heavy stream of water may spread fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2). Fire will produce dense black smoke.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool down the containers exposed to heat with a water spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with eyes, skin and clothing. Eliminate ignition sources. Keep unnecessary and unprotected personnel away from the spillage.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing mist, vapors. Keep away from open flames, hot surfaces and sources of ignition. Do not ingest.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store product sealed in the original container, away from heat and out of direct sunlight.

Incompatible materials : Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

In case of repeated or prolonged contact wear gloves. Consult supplier for specific recommendations.

Eye protection:

Avoid contact with eyes. Safety glasses with side shields

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear. Liquid.
Color	:	yellowish
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	Not applicable
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	63 °C (145.4°F)
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	0.797
Solubility	:	Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	< 7 mm²/s @40C
Viscosity, dynamic	:	No data available
Explosion limits	:	Lower explosion limit: 0.7 vol % Upper explosion limit: 6 vol %
Explosive properties	:	None.
Oxidizing properties	:	None.

9.2. Other information

No additional information available

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 under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Distallates (petroleum), hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 6.8 mg/l/4h

2_Ethylhexyl_nitrate (27247-96-7)	
LD50 oral rat	> 9640 mg/kg Source: IUCLID
LD50 dermal rabbit	> 4800 ml/kg
LC50 Inhalation - Rat (Dust/Mist)	> 5.65 mg/l/4h
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified
pH: Not applicable

Serious eye damage/irritation : Not classified
pH: Not applicable

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Distallates (petroleum), hydrotreated light (64742-47-8)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg body weight Animal: rat, Animal sex: male

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

2_Ethylhexyl_nitrate (27247-96-7)	
NOAEL (dermal,rat/rabbit,90 days)	500 mg/kg body weight Animal: rabbit, Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days)

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

Viscosity, kinematic : < 7 mm²/s @40C

Distallates (petroleum), hydrotreated light (64742-47-8)	
Viscosity, kinematic	1.764 mm²/s @40C

Symptoms/effects : May be fatal if swallowed and enters airways.

Inhalation : Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.

Skin : Repeated or prolonged skin contact may cause dermatitis and defatting.

Eyes : May cause minor eye irritation.

Ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

Chronic symptoms : None known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Distallates (petroleum), hydrotreated light (64742-47-8)	
EC50 - Crustacea [1]	> 1000 mg/l

2_Ethylhexyl_nitrate (27247-96-7)	
LC50 - Fish [1]	2 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 12.6 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	1.57 – 3.22 mg/l 72 hr
EC50 - Crustacea [2]	0.83 mg/l (OECD 202) Daphnia magna
EC50 72h - Algae [1]	3.22 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	1.57 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	1.111 mg/l Source: ECOSAR
ErC50 algae	2.53 mg/l (OECD 201)

12.2. Persistence and degradability

2005 Diesel Purge	
Persistence and degradability	Rapidly degradable

Distallates (petroleum), hydrotreated light (64742-47-8)	
Persistence and degradability	Rapidly degradable
Biodegradation	85 % OECD 301F (28d)

2_Ethylhexyl_nitrate (27247-96-7)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

2_Ethylhexyl_nitrate (27247-96-7)	
BCF - Fish [1]	1248
Partition coefficient n-octanol/water (Log Pow)	4.12
Partition coefficient n-octanol/water (Log Kow)	5.24

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated	UN3082	Not regulated	Not regulated
14.2. Proper Shipping Name			
Not regulated	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : 2_Ethylhexyl_nitrate)	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	9	Not regulated	Not regulated
Not regulated	 Not applicable	Not regulated	Not regulated
14.4. Packing group			
Not regulated	III	Not regulated	Not regulated

DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Not regulated	Dangerous for the environment: No	Not regulated	Not regulated
The requirements of the US DOT Hazardous Materials Regulations do not apply to a material classed as a combustible liquid in a non-bulk packaging unless the combustible liquid is a hazardous substance, a hazardous waste, or a marine pollutant.			

14.6. Special precautions for user

DOT

Not regulated

TDG

UN-No. (TDG) : UN3082

TDG Special Provisions : 16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks.
2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the “Food and Drugs Act”,99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be handled, offered for transport or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means containment and during transport. (2) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety. SOR/2014-306 UN3077, UN3082 SOR/2014-306

Explosive Limit and Limited Quantity Index : 5 L

Excepted quantities (TDG) : E1

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

2005 Diesel Purge	
SARA Section 311/312 Hazard Classes	Refer to Section 2 for OSHA Hazard Classification.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Distallates (petroleum), hydrotreated light (64742-47-8)
Listed on the Canadian DSL (Domestic Substances List)

2_Ethylhexyl_nitrate (27247-96-7)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

2005 Diesel Purge
Listed on the Canadian DSL (Domestic Substances List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard and the Hazardous Products Regulation (WHMIS 2015)

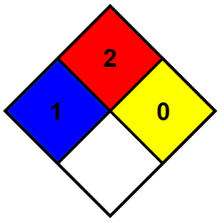
Revision date : 3/2/2024

Data sources : This safety data sheet was compiled with data and information from the following sources : RTECS, ECOSAR, HSDB, SIDS SIAP, CESAR, Chemical DB.

Full text of H-phrases	
H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard	:	2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.