Safety Data Sheet
OREGON FUEL ADDITIVE

Safety Data Sheet dated 15/2/2021, version 1

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

1.1. Product identifier

Mixture identification: UFI: FKK8-G0U8-D00K-K0P6
Trade name: OREGON FUEL ADDITIVE
Trade code: 3105

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

Recommended use:
Additive for unleaded fuel

1.3. Details of the supplier of the safety data sheet

Company:
LANDOIL TECHNOLOGIES S.R.L. - Via Aldrovandi, 98 - 41123 MODENA (MO) Italy
Phone n. +39 (0)59 827752

Competent person responsible for the safety data sheet:
laboratorio@land-oil.it

1.4. Emergency telephone number

Phone n. +39 (0)59 827752

1.5 Antipoison center(s):

AU: Umweltbundesamt GmbH Abteilung Chemikalien, Spittelauer Lände 5 - 1090 Wien - Telephone +43 1 31304 5620 - Email sdbreg@umweltbundesamt.at
BE: Centre antipoisons / Antigif Centrum - Hôpital Militaire Reine Astrid Rue Bruyn 1 - 1120 Bruxelles - Tel. +32 02 264 96 36 - Fax: +32 02 264 96 46 - Email: info@poisoncentre.be
HR: Croatian Institute for Toxicology and Antidoping, 10000 Zagreb Borongajska cesta 83 g - Fax: + 385 01 46 41 368 - E-mail: hzt@hzt.hr
CZ: Department of Chemicals and Biocides Ministry of Health, Palackého námestí 4 CZ - 128 01 Praegue 2 - Tel/fax: +420 2 2497 1111 - E-mail Poison Center (not AB): tis@vfn.cz
DE: Federal Institute for Risk Assessment (BfR) Unit: Poison and Product Documentation Centre, Max-Dohrn-Str. 8-10 - 10589 Berlin - Tel. +49 30-18412-3460 - Email: produkt-meldungen@bfr.bund.de
DK: The Danish Environmental Protection Agency, Haraldsgade 53 - 2100 København Ø - Tel: +45 72 54 40 00 - Email: mst@mst.dk
ES: Instituto Nacional de Toxicología y Ciencias Forenses, Calle José Echegaray, 4 - 28032 Las Rozas de Madrid, Madrid - Tel: +34 917689800 - Email: intcf@justicia.es and intcf.doc@justicia.es
FR: Centre antipoison et de toxicovigilance de Nancy, Hôpital Central 29 avenue du Maréchal de Lattre de Tassigny - 54035 Nancy Cedex - Tel : +33 3 83 22 50 50 - Email: cap@chu-nancy.fr
UK: National Poisons Information Service (NPIS), National Poisons Information Service (Birmingham Unit) City Hospital Dudley Rd
B187QH - Birmingham - Emergency call (healthcare professionals): (+44) 844 892 0111 - 0344 892 0111 - Email: director.birmingham.unit@npis.org

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H304 May be fatal if swallowed and enters airways.

Precautionary statements:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331 Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:
None

Contains
HYDROGENATED MINERAL OIL C10-C24

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None

Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.

3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 90%	HYDROGENATED MINERAL OIL C10-C24	CAS: 101316-72-7 EC: 309-877-7 REACH No.: 01-2119489969-06	 3.10/1 Asp. Tox. 1 H304
>= 1% - < 3%	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Index number: 603-096-00-8 CAS: 112-34-5 EC: 203-961-6	 3.3/2 Eye Irrit. 2 H319

IP346 Method with DMSO<3%

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash with plenty of water and soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:
Do NOT induce vomiting.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed
None

4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:

Water Spray
CO2 or Dry chemical fire extinguisher.
Extinguishing media which must not be used for safety reasons:
Water jets

5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters
Use suitable breathing apparatus .

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
For containment:
Contain spillages small quantities of product with earth, sand or other absorbent inert material
For cleaning up:
Clear spills immediately

6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhaltion of vapours and mists.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities
Keep the product in the original containers stored in environments and conditions to ensure the control / maintenance of leaks.
Store away from sources of heat / ignition and exposure to sunlight.
Avoid the accumulation of electrostatic charges.
Keep the containers tightly closed.
Ensure adequate ventilation of the premises.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
EU - TWA(8h): 67.5 mg/m3, 10 ppm - STEL: 101.2 mg/m3, 15 ppm
ACGIH - TWA(8h): 10 ppm - Notes: (IFV) - Hematologic, liver and kidney eff

DNEL Exposure Limit Values
HYDROGENATED MINERAL OIL C10-C24 - CAS: 101316-72-7
Worker Professional: 5.4 mg/m3 - Exposure: inhalative - Frequency: 07
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
Worker Professional: 67.5 mg/m3 - Consumer: 40.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term (Systemic effect)
Worker Professional: 83 mg/kg - Consumer: 50 mg/kg - Exposure: Dermal - Frequency: Long Term (Systemic effect)

Worker Professional: 101.2 mg/m3 - Consumer: 60.7 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term (Local effect)
Consumer: 5 mg/kg - Exposure: Oral - Frequency: Long Term (Systemic effect)

PNEC Exposure Limit Values

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

Target: Fresh Water - Value: 1.1 mg/l
Target: Marine water - Value: 0.11 mg/l
Target: 13 - Value: 11 mg/l
Target: Freshwater sediments - Value: 4.4 mg/kg
Target: Soil - Value: 0.32 mg/kg

8.2. Exposure controls

Eye protection:

safety glasses
For more information refer to the UNI-EN 166 standard.

Protection for skin:

Overall.
For more information please refere to UNI-EN 465/466/467

Protection for hands:

Disposable gloves in neoprene, nitrile or pvc.
Work gloves resistant to garlic, mineral oils and solvents.
For more information refer to the UNI-EN 374 standard

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Appearance and colour:	Liquid,blue	--	--
Odour:	caratteristico	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	-24°C	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	76°C ° C	ASTM D92 (C.O.C.)	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	0.875 Kg/dm3	ASTM D 1298	--
Solubility in water:	insolubile	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	16 cSt @40°C	ASTM D 445	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
The product is stable under normal storage conditions.
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Keep away from naked flames, hot surfaces and sources of ignition.
10.5. Incompatible materials
Strong acids and bases, oxidants
10.6. Hazardous decomposition products
Incomplete combustion and thermolysis can produce gases of various toxicities such as carbon monoxide, carbon dioxide, various hydrocarbons, sulfur anhydrides, aldehydes and soot.
Hydrogen sulfide, alkyl mercaptans and sulphides
Following the combustion the phosphorus and sulfur oxides are formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the product:
OREGON FUEL ADDITIVE
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
j) aspiration hazard
The product is classified: Asp. Tox. 1 H304

Toxicological information of the main substances found in the product:
HYDROGENATED MINERAL OIL C10-C24 - CAS: 101316-72-7
a) acute toxicity:
Test: LC50 - Route: Inhalation of aerosol - Species: Rat > 5.53000 mg/l - Notes: OECD 403 - Studio Condotto su oli sufficientemente raffinati IP 346<3%
Test: LD50 - Route: Oral - Species: Rat > 5000.00000 mg/kg - Notes: OECD 420 - Studio su oli sufficientemente raffinati IP 346<3%
Test: LD50 - Route: Skin - Species: Rabbit > 5000.00000 mg/kg - Notes: OECD 403 - Studio Condotto su oli sufficientemente raffinati IP 346<3%
g) reproductive toxicity:
Test: No Observed Adverse Effect Level - Species: Rat = 1000 MGKGD
Test: Lowest Observed Adverse Effect Level - Species: Rat = 125 MGKGD
j) aspiration hazard:
Test: Respiratory Tract Corrosive - Route: Inhalation - Species: Rat positive 220.00000 mg/m3 - Duration: 28 days - Notes: Può essere letale per ingestione. Viscosità < di 20,5 mm2/s a 40 °C.
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 2.410 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 2.764 mg/kg

SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
OREGON FUEL ADDITIVE
Not classified for environmental hazards
Based on available data, the classification criteria are not met
HYDROGENATED MINERAL OIL C10-C24 - CAS: 101316-72-7
Acute aquatic toxicity:
Endpoint: LL50 - Species: Daphnia > 10.00000 mg/l - Notes: OECD 202 - Studio chiave Shell (1988)
Endpoint: NOEC - Species: Pseudokirchneriella subcapitata >= 100.00000 mg/l - Notes: OECD 201 - Petro Canada (2008a)
Endpoint: LL50 - Species: Pimephales Promelas > 1000.00000 mg/l - Notes: EXXON (1995b)
Chronic aquatic toxicity:
Endpoint: EL50 - Species: Daphnia >= 1.00000 mg/l - Notes: OECD 202 - BP OIL Europe (1995)
Endpoint: NOELR - Species: Pimephales Promelas >= 1000.00000 mg/l - Notes: Studio chiave Redman Et al (2010b) QSAR
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
G:
Endpoint: LC50 - Species: Fish = 1300 mg/l - Duration h: 96
H:
Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48
I:
Endpoint: EC50 - Species: Alga > 100 mg/l - Duration h: 96
J:
Endpoint: EC10 - Species: FANGHI > 1995 mg/l - Duration h: 0.5
12.2. Persistence and degradability
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
Biodegradability: 5
12.3. Bioaccumulative potential
N.A.
12.4. Mobility in soil
N.A.
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions.
In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Dispose of waste and waste in accordance with local authority requirements

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/699 (ATP 11 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 55

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2

This safety data sheet has been completely updated in compliance to Regulation 2015/830.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Asp. Tox. 1, H304	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.