

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 18/01/2002 Revision date: 19/04/2017 Supersedes: 16/04/2014 Version: 2.2

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

1.1. Product identifier

Product form : Mixture

Product name : FOT LI 4100

Product code : UNIM015

Type of product : Solvents

Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use,Professional use Industrial/Professional use spec : For professional use only

Industrial

Function or use category : Solvents

Title	Use descriptors
	SU3, PC35, PROC5, ERC2

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

UNIMARINE SERVICES INC. 60 MARKET SQUARE PO BOX 364 BELIZE CITY T +35725331054

info@unimarine-services.com

1.4. Emergency telephone number

Emergency number : +35725331054

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

H335

Flammable liquids, Category 3 H226 Serious eye damage/eye irritation, Category H319

Specific target organ toxicity — Single

exposure, Category 3, Respiratory tract

irritation

Specific target organ toxicity — Single H336

exposure, Category 3, Narcosis

Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment — H411

Chronic Hazard, Category 2

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. May cause drowsiness or dizziness. May cause respiratory irritation. Causes serious eye irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)

10/07/2017



GHS02







1/9

EN (English) SDS Ref.: ARB033

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Signal word (CLP) : Danger

Hazardous ingredients Kerosine: solvent naphta heavy aromatic Hazard statements (CLP) H226 - Flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

uni mari

H319 - Causes serious eye irritation H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof Material equipment

P261 - Avoid breathing vapours P264 - Wash hands thoroughly after handling

: EUH066 - Repeated exposure may cause skin dryness or cracking

Other hazards

EUH-statements

No additional information available

SECTION 3: Composition/information on ingredients

3.1. **Substances**

Not applicable

3.2. **Mixtures**

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated light	(CAS No) 64742-47-8 (EC No) 265-149-8 (EC Index No) 649-422-00-2 (REACH-no) 01-2119453414-43	30 - 50	Xn; R65 R66	Asp. Tox. 1, H304
Kerosine : solvent naphta heavy aromatic	(EC No) 918-811-1 (EC Index No) 649-424-00- 3 (REACH-no) 01- 2119463583-34	30 - 50	R10	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Vetalcohol C8-C10 glucoside	(CAS No) (EC No) 500-220-1 (REACH-no) 01- 2119488530-36	2 - 10	Xi; R41	Eye Dam. 1, H318

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

Description of first aid measures

: If medical advice is needed, have product container or label at hand. First-aid measures general

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical

advice

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. If eye irritation persists: Get medical

advice/attention.

: Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician. First-aid measures after ingestion

Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause drowsiness or dizziness. Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Contact during a long period may cause light irritation.

Symptoms/injuries after eye contact : Eye irritation. Symptoms/injuries after ingestion : Risk of lung oedema.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

10/07/2017 SDS Ref.: ARB033 EN (English) 2/9

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830



SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO2), foam, water spray, powder.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour. Hazardous decomposition products in case of : Carbon monoxide. fume.

fire

5.3. Advice for firefighters

Precautionary measures fire : Evacuate area.

Firefighting instructions : Evacuate area. Exercise caution when fighting any chemical fire. Prevent fire fighting water

from entering the environment.

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

General measures : No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

No additional information available

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 : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

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

smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Avoid breathing

vapours

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

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Protect from sunlight. Keep container tightly closed.

Incompatible products : Oxidizing agent.

Incompatible materials : Butyl rubber. Ethylene-Propylene rubber (EPDM) /. Natural rubber. Polystyrene.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

10/07/2017 EN (English) SDS Ref.: ARB033 3/9

Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hand protection:

protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear.
Colour : Colourless.
Odour : aromatic.

Odour threshold : No data available pH : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : No data available : No data available

Boiling point : $140 \, ^{\circ}\text{C}$ Flash point : $> 55 \, ^{\circ}\text{C}$ Auto-ignition temperature : 496

Decomposition temperature : No data available
Flammability (solid, gas) : Not applicable
Vapour pressure : < 1 kPa

Relative vapour density at 20 °C No data available Relative density : No data available : 0,82 - 0,88 Density Solubility Soluble in water. Log Pow No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available : No data available Explosive properties Oxidising properties No data available : No data available Explosive limits

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidizing agent.

10/07/2017 EN (English) SDS Ref.: ARB033 4/9

Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

Kerosine : solvent naphta heavy aromatic	
LD50 oral rat	3492 mg/m³ OESO 401
LD50 dermal rabbit	> 3160 mg/kg OESO 402
LC50 inhalation rat (ppm)	> 6193 ppm/4h OESO 403

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Vetalcohol C8-C10 glucoside (-	Veta	alcohol	C8-C10	glucoside	()
--------------------------------	------	---------	--------	-----------	----

NOAEL (chronic, oral, animal/male, 2 years) 1000 mg/kg bodyweight

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

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

SECTION 12: Ecological information

12.1. Toxicity

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

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light (64742-47-8)		
EC50 Daphnia 1	1000 mg/l Daphnia magna 48 u	
Kerosine : solvent naphta heavy aromatic		
LC50 fish 1	2 - 5 mg/l 96 h - Oncorhynchus mykiss	
EC50 Daphnia 1	3 - 10 mg/l 48 h - Daphnia magna	
Vetalcohol C8-C10 glucoside ()		
LC50 fish 1	100 - 126 Danio rerio - OCDE 203	
EC50 Daphnia 1	> 100 mg/l Daphnia magna - OCDE 202	
ErC50 (algae)	27 - 37 mg/l Desmodesmus subspicatus	

12.2. Persistence and degradability

FOT LI 4100		
Persistence and degradability	May cause long-term adverse effects in the environment. This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.	
Distillates (petroleum), hydrotreated light (64742-47-8)		
Persistence and degradability	Product is biodegradable.	
Kerosine : solvent naphta heavy aromatic		
Persistence and degradability	Readily biodegradable.	
12.3. Bioaccumulative potential		
Vetalcohol C8-C10 glucoside ()		
Log Pow	< 1,77	

10/07/2017 EN (English) SDS Ref.: ARB033 5/9

Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

 UN-No. (ADR)
 : 1268

 UN-No. (IMDG)
 : 1268

 UN-No. (IATA)
 : 1268

 UN-No. (ADN)
 : 1268

 UN-No. (RID)
 : 1268

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PETROLEUM DISTILLATES, N.O.S.
Proper Shipping Name (IMDG) : PETROLEUM DISTILLATES, N.O.S.

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : PETROLEUM DISTILLATES, N.O.S.
Proper Shipping Name (RID) : PETROLEUM DISTILLATES, N.O.S.

Transport document description (ADR) : UN 1268 PETROLEUM DISTILLATES, N.O.S. (Solvent nafta), 3, III, (D/E),

ENVIRONMENTALLY HAZARDOUS

Transport document description (IMDG) : UN 1268 PETROLEUM DISTILLATES, N.O.S., 3, III, MARINE

POLLUTANT/ENVIRONMENTALLY HAZARDOUS

Transport document description (IATA) : UN 1268, 3, ENVIRONMENTALLY HAZARDOUS

Transport document description (ADN) : UN 1268 PETROLEUM DISTILLATES, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID) : UN 1268 PETROLEUM DISTILLATES, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3

10/07/2017 EN (English) SDS Ref.: ARB033 6/9

Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ADN

Transport hazard class(es) (ADN) : 3 Danger labels (ADN) : 3



RID

Transport hazard class(es) (RID) : 3 Danger labels (RID) : 3



Packing group

Packing group (ADR) : 111 Packing group (IMDG) : 111

: Not applicable Packing group (IATA)

Packing group (ADN) : 111 : 111 Packing group (RID)

Environmental hazards

: Yes Dangerous for the environment Marine pollutant : Yes

Other information : No supplementary information available

: S2

14.6. Special precautions for user

- Overland transport

: F1 Classification code (ADR) Special provisions (ADR) : 363 Limited quantities (ADR) : 51 Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions : T4

(ADR)

Portable tank and bulk container special

: TP1, TP29

provisions (ADR)

Tank code (ADR) : LGBF : FL Vehicle for tank carriage Transport category (ADR) : 3 Special provisions for carriage - Packages : V12

(ADR)

Special provisions for carriage - Operation

(ADR)

Hazard identification number (Kemler No.) : 30

10/07/2017 SDS Ref.: ARB033 7/9 EN (English)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Orange plates :

30 1268 **uni** mari

Tunnel restriction code (ADR) : D/E EAC code : 3YE

- Transport by sea

Special provisions (IMDG) : 223, 363, 955

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1, TP29
EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-E Stowage category (IMDG) : A

Properties and observations (IMDG) : Immiscible with water.

MFAG-No : 128

- Air transport

No data available

- Inland waterway transport

Number of blue cones/lights (ADN)

Classification code (ADN) : F1

Special provisions (ADN) : 363

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EX, A

Ventilation (ADN) : VE01

- Rail transport

Classification code (RID) : F1
Special provisions (RID) : 363
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions : T4

(RID)

(RID)

Portable tank and bulk container special

provisions (RID)

: TP1, TP29

: 0

Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages : W12

Colis express (express parcels) (RID) : CE4 Hazard identification number (RID) : 30

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

10/07/2017 EN (English) SDS Ref.: ARB033 8/9

Safety Data Sheet



according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS,

Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Distillates (petroleum), hydrotreated light is listed

SZW-lijst van mutagene stoffen : Distillates (petroleum), hydrotreated light is listed

NIET-limitatieve lijst van voor de voortplanting : None of giftige stoffen – Borstvoeding

: None of the components are listed

NIET-limitatieve lijst van voor de voortplanting

: None of the components are listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: None of the components are listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long lasting effects
EUH066	Repeated exposure may cause skin dryness or cracking
R10	Flammable
R41	Risk of serious damage to eyes
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking
Xi	Irritant
Xn	Harmful
ERC2	Formulation of preparations
PC35	Washing and cleaning products (including solvent based products)
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites

SDS EU (REACH Annex II)

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

10/07/2017 EN (English) SDS Ref.: ARB033 9/9