Safety Data Sheet dated 26/1/2018, version 1

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

1.1. Product identifier

Mixture identification:

Trade name: LIQUIDO LAVAGGIO IMPIANTI INFIAMMABILE 5L 11.036F

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

Recommended use:

AGENT OF SURFACE DEGREASER

Uses advised against:

do not use on humans and animals

1.3. Details of the supplier of the safety data sheet

Company:

ELKE S.r.l. Via XXV Aprile 202 10042 Nichelino (To) Italia.

Tel. n. +39 011 9622412

Competent person responsible for the safety data sheet:

Domenico Amosso info@elke-ac.com

1.4. Emergency telephone number

Centro Antiveleni Ospedale Niguarda Milano +39 02.66101029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

Danger, Flam. Liq. 2, Highly flammable liquid and vapour.

Warning, Skin Irrit. 2, Causes skin irritation.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Warning, STOT SE 3, May cause drowsiness or dizziness.

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

Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use water spray, CO2, foam, chemical powders to extinguish.

Special Provisions:

None

Contains

idrocarburi C7 n-alcani,isoalcani,ciclici
propan-2-ol; isopropyl alcohol; isopropanol

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

section 10.3

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
>= 80% - < 90%	idrocarburi C7 n-alcani,isoalcani,ciclici	EC: 927-510-4 REACH No.: 01-2119666169-27-0000	2.6/2 Flam. Liq. 2 H225 3.2/2 Skin Irrit. 2 H315 4.1/C2 Aquatic Chronic 2 H411 3.10/1 Asp. Tox. 1 H304 3.8/3 STOT SE 3 H336
>= 10% - < 12.5%	propan-2-ol; isopropyl alcohol; isopropanol	Index number: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336
>= 1% - < 3%	ethanol; ethyl alcohol	Index number: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6	2.6/2 Flam. Liq. 2 H225

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

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 thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

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

Section 11

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:
Follow the doctor's instructions

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray, CO2, foam, chemical powders depending on the materials involved in the fire.
Extinguishing media which must not be used for safety reasons:
Water jets. Use water jets only to cool the surfaces of containers exposed to fire.

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 .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
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.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

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, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

store in a cool, well ventilated place, away from heat, flames, sparks or other sources of ignition
keep only in the original container away from sunlight neighborhoods
avoid contact with skin and eyes, inhalation of vapours/mists/dusts.
do not use empty containers before they are cleaned.
contaminated clothing must be replaced before entering the dining areas.
at work do not eat or drink.
avoid the accumulation of electrostatic charges.
do not smoke
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.

7.3. Specific end use(s)

metal cleaner

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

TLV TWA - 400ppm-1639,26 mg/m3
TLV STEL - 500ppm-2049,08 mg/m3
VLE 8h - 2085 mg/m3-500ppm

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

ethanol; ethyl alcohol - CAS: 64-17-5

ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr

DNEL Exposure Limit Values

hydrocarbons C7 n-alkanes, isoalkanes, cyclics

Worker Professional: 300 mg/kg/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 2085 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 149 mg/kg/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

Do not expose to temperatures exceeding 50° c.

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:	colourless liquid	--	--
Odour:	of solvent	--	--
Odour threshold:	Not Relevant	--	--
pH:	Not Relevant	--	--
Melting point / freezing point:	<-20°C	--	--
Initial boiling point and boiling range:	>70°C	--	--
Flash point:	0 < fp < 21 ° C	--	--
Evaporation rate:	Not Relevant	--	--
Solid/gas flammability:	Not Relevant	--	--
Upper/lower flammability or explosive limits:	Not Relevant	--	--
Vapour pressure:	Not Relevant	--	--
Vapour density:	>2	--	--
Relative density:	0.750 Kg/l +/- 0.05	--	--
Solubility in water:	undissolvable	--	--
Solubility in oil:	complete	--	--
Partition coefficient (n-octanol/water):	Not Relevant	--	--
Auto-ignition temperature:	>200°C	--	--
Decomposition temperature:	Not Relevant	--	--
Viscosity:	Not Relevant	--	--
Explosive properties:	section 10.3	--	--
Oxidizing properties:	Not Relevant	--	--

9.2. Other information

Properties	Value	Method:	Notes:
kinematic viscosity:	1,4 < kv <= 2,05 mm2/s (a 40°C)	--	--
Miscibility:	Not Relevant	--	--
Fat Solubility:	complete	--	--
Conductivity:	Not Relevant	--	--
Substance Groups relevant properties	Not Relevant	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
avoid contact with strong acids and bases and oxidizing agents.
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
avoid mixing the product with strong oxidizers and strong acids
may form explosive vapor / air mixtures in places not well ventilated
10.4. Conditions to avoid
avoid the accumulation of electrostatic charges.
avoid exposing the product to high temperatures
keep away from heat, sources of ignition
10.5. Incompatible materials
strong acids and flammable liquids
oxidizing agents
10.6. Hazardous decomposition products
the product is flammable, following combustion can lead to the formation of dangerous decomposition products
by thermal decomposition can rid COx

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the product:
N.A.
Toxicological information of the main substances found in the product:
hydrocarbons C7 n-alkanes, isoalkanes, cyclics
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat > 23300 mg/m3 - Duration: 4h
Test: LD50 - Route: Skin - Species: Rat > 2920 mg/kg
Test: LD50 - Route: Oral - Species: Rat > 5840 mg/kg
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5840 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
ethanol; ethyl alcohol - CAS: 64-17-5
LD50 (RABBIT) ORAL: 6300 MG/KG
LD50 (RAT) ORAL SINGLE DOSE: 7060 MG/KG

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:
a) acute toxicity;
b) skin corrosion/irritation;

c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.
hydrocarbons C7 n-alkanes, isoalkanes, cyclics
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Fish = 1.5 mg/l - Duration h: 48
Endpoint: LC50 - Species: Daphnia = 4 mg/l - Duration h: 24
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72
Endpoint: EC50 - Species: Fish > 100 mg/l - Duration h: 48

12.2. Persistence and degradability

None
N.A.

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:

contaminated packaging should be sent for recovery or disposal in compliance with national regulations on waste management
reuse if possible. Product residues are to be considered hazardous waste. disposal must be entrusted to authorised waste management, in compliance with national and, where appropriate, local.

SECTION 14: Transport information

14.1. UN number

ADR-UN number:	1993
IATA-Un number:	1993
IMDG-Un number:	1993

14.2. UN proper shipping name

14.3. Transport hazard class(es)

ADR-Class:	3
IATA-Class:	3

IMDG-Class: 3.2 Flammable liquid nas UN1993

14.4. Packing group

ADR-Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II

14.5. Environmental hazards

Marine pollutant: Marine pollutant

14.6. Special precautions for user

IMDG-Page: 3230

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

No

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)

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

None

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

Product belongs to category: P5c, E2

15.2. Chemical safety assessment

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

SECTION 16: Other information

Text of phrases referred to under heading 3:

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2

Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

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**
Flam. Liq. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Calculation method
Aquatic Chronic 2, H411	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.
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.