

# Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Code: 411 00 15280-2884  
Product name: PTFE LUBRIFICANT

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

Intended use: Lubricating grease with P.T.F.E. in aerosol

### 1.3. Details of the supplier of the safety data sheet

Name: Meccanocar Italia S.r.l.  
Full address: Via San Francesco, 22  
District and Country: 56033 Capannoli (PI)  
Italy

Tel. +39 0587 609433

Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet: [moreno.meini@meccanocar.it](mailto:moreno.meini@meccanocar.it)

### 1.4. Emergency telephone number

For urgent inquiries refer to: National Poisons Information Service: +44 121 507 4123

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

## PTFE LUBRICANT

Hazard pictograms:



Signal words:

Danger

Hazard statements:

<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H315</b>	Causes skin irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

Precautionary statements:

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P251</b>	Do not pierce or burn, even after use.
<b>P410+P412</b>	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
<b>P211</b>	Do not spray on an open flame or other ignition source.
<b>P501</b>	Dispose of contents / container in accordance with local regulations.
<b>P312</b>	Call a POISON CENTRE / doctor if you feel unwell.

**Contains:** HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>HYDROCARBONS C3-4</b>		
CAS 68476-40-4	58 ≤ x < 62	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: H K U
EC 270-681-9		
INDEX -		
Reg. no. 01-2119486557-22-XXXX		
<b>HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES</b>		
CAS 64742-49-0	40 ≤ x < 42,5	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
EC 927-510-4		
INDEX -		
Reg. no. 01-2119475515-33-XXXX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 60,00 %

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

### 4.3. Indication of any immediate medical attention and special treatment needed

Information not available

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

### 5.2. Special hazards arising from the substance or mixture

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

### 5.3. Advice for firefighters

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

## PTFE LUBRICANT

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

## 6.2. Environmental precautions

Do not disperse in the environment.

## 6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

## 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

### HYDROCARBONS C3-4

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
TLV-ACGIH			1000					
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic

## PTFE LUBRICANT

Skin 23,4 mg/kg bw/d

## HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

## Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	

OEL	EU	1400		
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## Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				149 mg/kg bw/d				
Inhalation				447 mg/m3				2085 mg/m3
Skin				149 mg/kg bw/d				300 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

## 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

## HAND PROTECTION

None required.

## SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

## EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

## RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

## ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

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HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Chemical resistant gloves are recommended. If contact with forearms is likely, wear glove-style gloves. Nitrile, CEN EN 420 and EN 374 standards provide general requirements and lists of glove types.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	liquid under pressure
Colour	white
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	< -100 °C
Initial boiling point	> -42 °C
Boiling range	-42 °C
Flash point	< -80 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	1,8 % (V/V)
Upper inflammability limit	9,5 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	3,2 bar
Vapour density	>2
Relative density	0,64 Kg/l
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 400 °C
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

### 9.2. Other information

Information not available

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Avoid heat, sparks, open flames and other sources of ignition.

### 10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Strong oxidants.

### 10.6. Hazardous decomposition products

Information not available

## SECTION 11. Toxicological information

### 11.1. Information on toxicological effects

#### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### Information on likely routes of exposure

Information not available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

#### Interactive effects

Information not available

#### ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

**PTFE LUBRIFICANT**

LD50 (Oral) of the mixture:  
Not classified (no significant component)  
LD50 (Dermal) of the mixture:  
Not classified (no significant component)

**HYDROCARBONS C3-4**

Method: Not indicated-Read Across  
Reliability: 2  
Species: Rat (Alderley Park (SPF); male / female)  
Route of exposure: Inhalation  
Results: LC50 1 443 mg / L air

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: standard acute oral test  
Reliability: 2  
Species: Rat (Charles River CD; male / female)  
Route of exposure: Oral  
Results: LD50> 8 mL / kg bw  
Method: Equivalent or similar to OECD 403  
Reliability: 2  
Species: Rat (Wistar; male / female)  
Route of exposure: Inhalation (vapors)  
Results: LC50> 23.3 mg / L air  
Method: The acute toxicity of SBP 100/140 was determined according to Noakes and Sanderson (1969): A method for determining the dermal toxicity of pesticides, Br. J. Industr Med 26: 59-64.  
Reliability: 2  
Species: Rat (Charles River CD; male / female)  
Route of exposure: Dermal  
Results: LD50> = 4 mL / kg bw

**SKIN CORROSION / IRRITATION**

Causes skin irritation

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: Equivalent or similar to OECD 404  
Reliability: 2  
Species: Rabbit (New Zealand White)  
Route of exposure: Dermal  
Results: Category 2, Irritating

**SERIOUS EYE DAMAGE / IRRITATION**

Does not meet the classification criteria for this hazard class

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: Federal Register of the F.D.A. 28 (110), 6.6.1963, para. 191.12. Test for eye irritants  
Reliability: 2  
Species: Rabbit (New Zealand White)  
Route of exposure: Ocular  
Results: Not irritating

**RESPIRATORY OR SKIN SENSITISATION**

Does not meet the classification criteria for this hazard class



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HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD 406

Reliability: 2

Species: guinea pig (p-strain; male / female)

Route of exposure: Dermal

Results: Not sensitizing

Respiratory sensitization

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS C3-4

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

Method: OECD 471 in vitro test - Read Across

Reliability: 1

Species: S. typhimurium

Results: Negative with and without metabolic activation

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD 471

Reliability: 1

Species: S. typhimurium, E. Coli

Results: Negative with or without metabolic activation

Bibliographic reference: Brooks, T.M. et al., The genetic toxicology of some hydrocarbon and oxygenated solvents (1988)

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS C3-4

Method: Equivalent or similar to EPA OPP 83-5 -Read Across

Reliability: 1

Species: Rat (Fischer 344; male / female)

Route of exposure: Oral

Results: Carcinogen

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

HYDROCARBONS C3-4

Method: OECD 413

Reliability: 1

**PTFE LUBRIFICANT**

Species: Rat (Sprague-Dawley CD; male / female)  
Route of exposure: Inhalation (gas)  
Results: NOAEC (fertility) 10 000 ppm

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD 416  
Reliability: 1  
Species: Rat (Sprague-Dawley; male / female)  
Route of exposure: Inhalation (vapors)  
Results: NOAEL 9000 ppm

Adverse effects on development of the offspring  
HYDROCARBONS C3-4

Method: EPA OPPTS 870.3700  
Reliability: 1  
Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) CrI: CD® IGS BR)  
Route of exposure: Inhalation (gas)  
Results: NOAEC (development) 10 426 ppm

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Food and Drug Administration 1966 "Guidelines for Reproduction Studies for Safety Evaluation of Drugs for Human Use", Segment II  
Reliability: 2  
Species: Rat (CD (SD))  
Route of exposure: Inhalation (vapors)  
Results: NOAEC 1 200 ppm

**STOT - SINGLE EXPOSURE**

May cause drowsiness or dizziness

HYDROCARBONS C3-4

Based on available data and through expert judgment, the substance is not classified as dangerous in the target organ toxicity class for single exposure.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

Target organ  
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Central nervous system

Route of exposure  
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Inhalation

**STOT - REPEATED EXPOSURE**

Does not meet the classification criteria for this hazard class

HYDROCARBONS C3-4

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC 10 000 ppm

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Not indicated

Reliability: 2

Species: Rat (Wistar; male)

Route of exposure: Inhalation (vapors)

Results: NOAEC 12 470 mg / m<sup>3</sup> air

Bibliographic reference: Takeuchi, Y. et al., A comparative study of the toxicity of n-pentane, n-hexane, and n-heptane to the peripheral nerve of the rat. (1981)

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

## SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

### 12.1. Toxicity

HYDROCARBONS C3-4

LC50 - for Fish

49,47 mg/l/96h

HYDROCARBONS, C7, N-ALCANS,  
ISOALKANS, CYCLES

LC50 - for Fish

13,4 mg/l/96h

### 12.2. Persistence and degradability

HYDROCARBONS C3-4

Easily degradable in water.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Quickly degradable in water, 98% in 28 days.

### 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### 12.6. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

#### CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

#### HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

The product is suitable for combustion in a closed controlled burner for the value or disposal of the fuel by supervised incineration at very high temperatures to prevent the formation of undesirable combustion products.

## SECTION 14. Transport information

### 14.1. UN number

ADR / RID, IMDG, 1950  
IATA:

### 14.2. UN proper shipping name

ADR / RID: AEROSOLS  
IMDG: AEROSOLS  
IATA: AEROSOLS, FLAMMABLE

### 14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1



### 14.4. Packing group

ADR / RID, IMDG, -  
IATA:

### 14.5. Environmental hazards

ADR / RID: NO  
IMDG: NO  
IATA: NO

## PTFE LUBRICANT

**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special Provision: - EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

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

Information not relevant

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EC: P3a-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

<u>Product Point</u>	40
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Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

## PTFE LUBRICANT

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Flam. Gas 1A</b>	Flammable gas, category 1A
<b>Aerosol 1</b>	Aerosol, category 1
<b>Aerosol 3</b>	Aerosol, category 3
<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Press. Gas (Liq.)</b>	Liquefied gas
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>H220</b>	Extremely flammable gas.
<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H225</b>	Highly flammable liquid and vapour.
<b>H280</b>	Contains gas under pressure; may burst if heated.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H315</b>	Causes skin irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration

**PTFE LUBRICANT**

- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.