




<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

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

1.1. Product identifier

Mixture identification:	Mixture
Trade name:	XK1 SYNTHETIC PLUS TECHNOLOGY ENGINE OIL 5W-30 (SL/CF – A5/B5) – ADVANCE TYPE
Trade code:	OEX5301.01 (1L) – OEX5301.05 (5L) – OEX5301.20 (20L) – OEX5301.60 (60L) – OEX5301.99 (205L)

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

Recommended use:	Lubricating oil for four-stroke petrol and diesel engines.
Uses advised against:	Observe restrictions to the recommended uses.

1.3. Details of the supplier of the safety data sheet

Company:

EXO Automotive Spa Unipersonale

Via San Marco 11c Interno 69
35129 PADOVA Italy
www.exoautomotive.com

Contacts:

Phone: (+39) 049 744 99 70
Fax: (+39) 049 744 99 71
Mail: info@exoautomotive.com

Office hours: from Monday to Friday 9:00 ÷ 13:00 and 14:00 ÷ 18:00

1.4. Emergency telephone number

Foreign Countries: Contact the closest Poisons Information Centre.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:


No other hazards.

2.2. Label elements

Symbols:

None.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

Hazard statements:

None.

Precautionary statements:

None.

Special Provisions:

None.

Contents:

C14-16-18 ALKYL PHENOL. May cause an allergic reaction.

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 CLP Regulation and related classification:

>= 70% - < 80% DISTILLATE, SEVERELY HYDROTREATED HEAVY PARAFFINIC
REACH No.: 01-2119484627-25-xxxx, Index number: 649-467-00-8, CAS: 64742-54-7,
EC: 265-157-1



3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

>= 10% - < 12.5% LUBRICATING OILS (PETROLEUM), C24-50, SOLVENT-EXTD.,
DEWAXED, HYDROGENATED
REACH No.: 01-2119489969-06-xxxx, Index number: 649-530-00-X, CAS:
101316-72-7, EC: 309-877-7

DECLL (CLP)*

>= 1% - < 3% ZINC BIS(O-(6-METHYLHEPTYL)) BIS(O-(SEC-BUTYL))
BIS(DITHIOPHOSPHATE)
REACH No.: 01-2119543726-33, EC: 298-577-9





3.2/2 Skin Irrit. 2 H315



3.3/1 Eye Dam. 1 H318



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<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

 4.1/C2 Aquatic Chronic 2 H411

EXPERIMENTAL DATA**

>= 1% - < 3% BIS(NONILPHENIL)AMINE
REACH No.: 01-2119488911-28, EC: 253-249-4

4.1/C4 Aquatic Chronic 4 H413

>= 1% - < 3% C14-16-18 ALKYL PHENOL
REACH No.: Not applicable. Substance presents as impurity.

 3.4.2/1B Skin Sens. 1B H317

4.1/C4 Aquatic Chronic 4 H413

TOXICOLOGICAL TEST ***

*DECLL (CLP): Substance classified in accordance with Note L, Annex VI of EC Regulation (EC) 1272/2008. The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% w/w DMSO extract as measured by IP 346/92 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method" (Institute of Petroleum, London). This note applies only to certain complex oil-derived substances in Part 3.

**EXPERIMENTAL DATA: as stated by the supplier of the additive, although the mixture classification is required according to the EC substance 298-577-9 reported, the experimental data of the supplier itself exclude the danger of "eye irritant cat.2 H319 " at the concentrations used.

***TOXICOLOGICAL TEST: supplier claims to be in possession of experimental data on salicylate substances (containing C14-16-18 Alkyl Phenol as an impurity), which show that they are not sensitizing of the skin and therefore has no classification "Skin sensitizer cat.1B H317".

For the full text of H phrases mentioned above, see Section 16.

All concentrations are expressed in weight percent units for liquids or in volume percentage for gaseous product.

Any other specified components, such as non-hazardous to completion at 100% of the formula.

SECTION 4: First aid measures


4.1. Description of first aid measures

In case of skin contact:

The lesions for high pressure jets require prompt surgical intervention and possibly steroid therapy, to minimize tissue damage and loss of function.

Any substance, in case of accidents involving pressurized circuits and similar, can be accidentally injected under the skin, even without external damage. In this case it is necessary to carry the injured as soon as possible to hospital for treatment.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

Remove contaminated clothing.
In case of eyes contact:
Flush eyes immediately with plenty of water for several minutes while holding eyelids open.
Seek medical advice in case of persistent pain and redness.
In case of Ingestion:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
In case of Inhalation:
In case of exposure to high concentrations of vapors and mists move the person affected to fresh air. Seek medical attention if necessary.
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

Treatment:
None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Use fire extinguishing methods for Class B fires: carbon dioxide, dry chemical powder, foam, sand or earth.
Water spray.
Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

Avoid the use of water jets. Use water jet only to cool the surfaces of the containers exposed to fire.
None in particular.


5.2. Special hazards arising from the substance or mixture

Avoid breathing combustion fumes as a result of fire can form compounds of chlorine, sulfur, nitrogen, unburned hydrocarbons and other derivatives potentially dangerous.
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Note: Cool containers not involved in fire but exposed to heat with water to prevent any outbreak and spread of fire.
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.
Use protective clothes and suitable breathing apparatus.



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<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eye contact by wearing appropriate protective clothing.
In case of spillage of large quantities, especially in confined environment, avoid breathing vapors aerating the environment or wear protective equipment for respiratory.
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Prevent product from scattering and entering in the soil, drains and surface waters. If necessary, inform the competent local authorities.
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

Dike in the event of leakage of substantial quantities of the product. Contain spills of small quantities of product with sand, earth or other inert absorbent material. Transfer to suitable container suitable for storage and transportation of collected material. Dispose of in accordance with local regulations.
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 direct contact with the product.
Avoid breathing spray mist or vapors of the product, ensuring adequate ventilation of the working environment, particularly if confined.
Avoid contact with skin and eyes, inhalation of vapours and mists.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and properly labeled.
Storage facilities must be equipped with appropriate systems to prevent contamination of soil and water in the event of leaks or spills.
The structure of the storage area, the characteristics of tanks, equipment and operating procedures must comply with the relevant legislation in the European, national or local level.
If the product is supplied in containers, store only in original container or in a container suitable for the type of product.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

Keep in original containers stored in places and under such conditions as to ensure the control and containment of losses. Store in a cool place, away from any source of heat or ignition and possibly away from exposure to direct sunlight. Avoid the accumulation of electrostatic charges. Keep containers tightly closed. Ensure adequate ventilation of rooms. 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

No special requirements under normal conditions of use.

DISTILLATE, SEVERELY HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
ACGIH - LTE(8h): 5 mg/m³ - Notes: TWA-TLV (mineral oil aerosol/mists).

LUBRICATING OILS (PETROLEUM), C24-50, SOLVENT-EXTD., DEWAXED, HYDROGENATED -
CAS: 101316-72-7
ACGIH - LTE(8h): 5 mg/m³ - Notes: TWA-TLV (mineral oil aerosol/mists).

DNEL Exposure Limit Values:

DISTILLATE, SEVERELY HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
Worker Professional: 5.4 mg/m³ - Consumer: 1.2 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, local effects - Notes: mineral oil aerosol/mists.

LUBRICATING OILS (PETROLEUM), C24-50, SOLVENT-EXTD., DEWAXED,
HYDROGENATED - CAS: 101316-72-7
Worker Professional: 5.4 mg/m³ - Consumer: 1.2 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, local effects - Notes: mineral oil aerosol/mists.

BIS(NONILPHENIL)AMINE

Worker Professional: 0.62 mg/kg - Exposition: Human Dermal - Frequency: long term,
systemic effects.


Worker Professional: 4.37 mg/m³ - Exposition: Human Inhalation - Frequency: long term,
systemic effects.

Consumer: 0.31 mg/kg - Exposition: Human Dermal - Frequency: long term, systemic
effects.

Consumer: 1.09 mg/m³ - Exposition: Human Inhalation - Frequency: long term, systemic
effects.

Consumer: 0.31 mg/kg - Exposition: Human Oral - Frequency: long term, systemic
effects.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

PNEC Exposure Limit Values:

BIS(NONILPHENIL)AMINE

Target: Acqua dolce - Value: 0.1 mg/l

Target: Acqua di mare - Value: 0.01 mg/l

Target: Sedimenti d'acqua dolce - Value: 132000 mg/kg

Target: Sedimenti d'acqua di mare - Value: 13200 mg/kg

Target: Soil - Value: 263000 mg/kg

8.2. Exposure controls

Eye protection:

Wear safety glasses where it is possible to come into contact with the product.

For more information, please refer to the UNI-EN 166

Eye glasses with side protection.

Protection for skin:

Use overalls and apron made of suitable material, change contaminated clothing and wash before reuse.

It is advisable to maintain good personal and work clothes hygiene.

For more information, please refer to the UNI-EN 465/466/467.

Overall.

Protection for hands:

Wear work gloves (for example neoprene, nitrile or PVC) preferably felt-lined resistant to mineral oils or solvents. Gloves should be changed when they show signs of wear. Wear gloves after proper hand washing.

In the case of non prolonged contacts use of barrier creams may be a useful security tool.

The choice of protective gloves depends also on the conditions of use and must take into account the manufacturer's instructions.

For more information, please refer to the UNI-EN 374.

Butyl caoutchouc (butyl rubber).

PVC (polyvinyl chloride).

Respiratory protection:

If the operating procedures and other means to limit the exposure of workers should not be appropriate - in order to comply with the limits specified in Section 8 if exposure - are needed other means of respiratory protection: masks with cartridges for organic vapor and dust/mist (e.g.: mask active carbon).

Not needed for normal use.

Thermal Hazards:

Wear protective clothing during operations involving hot material: heat-resistant clothing (pants over the boots and sleeves above the cuff of the gloves), heavy boots heat resistant and non-slip (e.g.: leather).

Environmental exposure controls:

Storage facilities must be equipped with appropriate systems to prevent contamination of soil and water in the event of leaks or spills.


In the case of discharge to a sewage treatment urban wastewater, is not required any treatment.

Do not release into the environment.

Prevent the release of substances dissolved or recover from wastewater.

Refer to local regulations for air pollution, soil pollution and water.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour:	CLEAR 3,0	ASTM D1500
Odour:	MINERAL CHARACTERISTIC	
Odour threshold:	N.A.	
pH:	N.A.	
Melting point/freezing point:	-36 °C (pour point)	ASTM D5950
Initial boiling point and boiling range:	N.A.	
Solid/gas flammability:	N.A.	
Upper/lower flammability or explosive limits:	N.A.	
Vapour density:	N.A.	
Flash point:	225 °C	ASTM D92
Evaporation rate:	N.A.	
Vapour pressure:	N.A.	
Relative density:	0,855 g/cm ³ at 20 °C	ASTM D4052
Solubility in water:	INSOLUBLE	
Solubility in oil:	N.A.	
Partition coefficient (n-octanol/water):	N.A.	
Auto-ignition temperature:	N.A.	
Decomposition temperature:	N.A.	
Viscosity:	63 cSt at 40 °C	ASTM D7279
Explosive properties:	N.A.	
Oxidizing properties:	N.A.	

9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

Avoid contact with acids and strong bases and oxidizing agents.
Stable under normal conditions.

10.2. Chemical stability

The product is stable at room temperature.
Stable under normal conditions.


10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

It may cause slight irritation.

General Notice: the high-pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Frequent and prolonged contact may defeat the skin and irritate even causing dermatitis.

Prolonged exposure to this product may cause drowsiness and dizziness.

Prolonged exposure to vapors or mists of this product may cause irritation to the respiratory tract.

Toxicological information of the main substances found in the mixture:

DISTILLATE, SEVERELY HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

Test: LD50 - Route: Inhalation > 5 mg/l

g) reproductive toxicity:

Test: No Observed Adverse Effect Level - Route: Skin > 2000 mg/kg - Notes: questa sostanza non ha mostrato effetti sui parametri riproduttivi.

i) STOT-repeated exposure:

Test: No Observed Adverse Effect Level - Route: Inhalation > 220 mg/m³ - Notes: effetti locali.

Test: No Observed Adverse Effect Level - Route: Inhalation > 980 mg/m³ - Notes: effetti sistemici.

LUBRICATING OILS (PETROLEUM), C24-50, SOLVENT-EXTD., DEWAXED, HYDROGENATED - CAS: 101316-72-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: API (1982). - Notes: Affidabile senza restrizioni. OECD Guideline 401.


Test: LC50 - Route: Inhalation - Species: Rat > 5.53 mg/l - Duration: 4h - Source: Exxon Biomedical Sciences (1988). - Notes: Affidabile senza restrizioni. OECD Guideline 403.

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Source: API (1982). - Notes: Affidabile senza restrizioni. OECD Guideline 402.

f) carcinogenicity:

Test: Carcinogeneticity - Route: Skin - Species: Rat 0.25 ml/kg - Duration: 78 weeks - Source: Doak, Brown, Hunt, Smith, Roe (1983). - Notes: Affidabile senza restrizioni. Equivalente a OECD Guideline 451.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

g) reproductive toxicity:

Test: Reproductive Toxicity - Route: Oral - Species: Rat > 1000 mg/kg - Duration: 24h - Source: WIL Research labs (1995). - Notes: Affidabile senza restrizioni. OECD Guideline 421.

i) STOT-repeated exposure:

Test: Lowest Observed Adverse Effect Level - Route: Oral - Species: Rat = 125 mg/kg - Duration: 24h - Source: MOBIL (1990). - Notes: Affidabile senza restrizioni. OECD Guideline 408.

Test: No Observed Adverse Effect Level - Route: Inhalation - Species: Rat > 980 mg/m³ - Source: Dalbey, Osimitz, Kommineni, Roy, Feuston, Yang (1991). - Notes: Affidabile con restrizioni. OECD Guideline 412.

Test: No Observed Adverse Effect Level - Route: Skin - Species: Rat > 2000 mg/kg - Source: MOBIL (1983). - Notes: Affidabile senza restrizioni. OECD Guideline 411.

ZINC BIS(O-(6-METHYLHEPTYL)) BIS(O-(SEC-BUTYL)) BIS(DITHIOPHOSPHATE)

a) acute toxicity:

Test: LD50 - Route: Oral = 2600 mg/kg - Notes: Può essere nocivo se ingerito.

Test: LD50 - Route: Skin > 3160 mg/kg - Notes: OECD Guideline 402.

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin yes - Duration: 4h - Notes: OECD Guideline 404.

c) serious eye damage/irritation:

Test: Eye Irritant yes - Notes: 16 CFR 1500.42.

BIS(NONILPHENIL)AMINE

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Note: OECD TG 401.

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Note: OECD TG 402.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

a) acute toxicity;

b) skin corrosion/irritation;

c) serious eye damage/irritation;

ZINC BIS(O-(6-METHYLHEPTYL)) BIS(O-(SEC-BUTYL))
BIS(DITHIOPHOSPHATE)


According to declaration of the additive supplier although it required the classification of the mixture according to EC 298-577-9 substance reported, the experimental data of the provider itself rule out the danger of "irritating to eyes H319 cat.2" at the concentrations used.

d) respiratory or skin sensitisation;

C14-16-18 ALKYL PHENOL

The supplier claims to be in possession of experimental data on salicylate substances (containing C14-16-18 Alkyl Phenol as an impurity), which show that



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

they are not sensitizing of the skin and therefore has no classification "Skin sensitizer cat.1B H317".

- 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.

DISTILLATE, SEVERELY HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7

a) Aquatic acute toxicity:

- Endpoint: EL50 > 10000 mg/l - Notes: invertebrati.
- Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 48
- Endpoint: NOELR - Species: Algae > 100 mg/l
- Endpoint: IC50 - Species: Algae > 1000 mg/l - Duration h: 72
- Endpoint: LL50 - Species: Fish > 100 mg/l
- Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96

b) Aquatic chronic toxicity:

- Endpoint: NOELR > 10 mg/l - Notes: invertebrati.
- Endpoint: NOELR - Species: Fish = 10 mg/l

LUBRICATING OILS (PETROLEUM), C24-50, SOLVENT-EXTD., DEWAXED, HYDROGENATED - CAS: 101316-72-7

a) Aquatic acute toxicity:

- Endpoint: EL50 - Species: Daphnia > 10000 mg/l - Duration h: 48 - Notes: Shell (1988). OECD Guideline 202.
- Endpoint: NOELR - Species: Raphidocleis Subcapitata > 100 mg/l - Duration h: 72 - Notes: Petro-Canada (2008). OECD Guideline 201.
- Endpoint: LL50 - Species: Pimephales Promelas > 100 mg/l - Duration h: 96 - Notes: Exxon (1995).

b) Aquatic chronic toxicity:


- Endpoint: NOELR - Species: Daphnia = 10 mg/l - Duration h: 504 - Notes: Shell (1995). OECD Guideline 211.
- Endpoint: NOELR - Species: Oncorhynchus Mykiss > 1000 mg/l - Duration h: 336 - Notes: Redman, et Al. (2001). QSAR.

ZINC BIS(O-(6-METHYLHEPTYL)) BIS(O-(SEC-BUTYL)) BIS(DITHIOPHOSPHATE)

a) Aquatic acute toxicity:

- Endpoint: LC50 - Species: Oncorhynchus Mykiss = 4.5 mg/l - Duration h: 96 - Notes: Prova semistatica. OECD Guideline 203.
- Endpoint: EL50 - Species: Daphnia = 5.4 mg/l - Duration h: 48 - Notes: Prova statica. OECD Guideline 202.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

Endpoint: EC50 - Species: Selenastrum Capricornutum = 2.1 mg/l - Duration h: 96 -
Notes: Prova statica. OECD Guideline 201.

BIS(NONILPHENIL)AMINE

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Danio Rerio > 100 mg/l - Duration h: 96 - Note: Prova statica.
OECD TG 203.

Endpoint: EC50 - Species: Dafnie > 100 mg/l - Duration h: 48 - Note: Prova statica.
OECD TG 202.

Endpoint: EC50 - Species: Alghe > 100 mg/l - Duration h: 72 - Note: Prova statica. OECD
TG 201.

12.2. Persistence and degradability

The product floats on water.

The product is adsorbed on the surface in the ground.

The product hardly evaporates.

12.3. Bioaccumulative potential

ZINC BIS(O-(6-METHYLHEPTYL)) BIS(O-(SEC-BUTYL)) BIS(DITHIOPHOSPHATE)

Bioaccumulation: N.A. Test: Kow - Partition coefficient 0.9 - Duration: N.A. - Notes: a
23°C.

BIS(NONILPHENIL)AMINE

Bioaccumulation: N.A. Test: Kow - Partition coefficient 7.6 - Duration: N.A. - Notes: 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

Do not discharge in sewers, tunnels or watercourses. Follow the law.

Recover if possible. In so doing, comply with the local and national regulations currently in
force.


Where applicable, refer to the following regulatory provisions: 91/156/EEC, 91/689/EEC,
94/62/EC and subsequent amendments.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

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 MARPOL73/78 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)
- Dir. 2006/8/EC
- Regulation (EC) n. 1907/2006 (REACH)
- Regulation (EC) n. 1272/2008 (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 :

- Ministerial circulars 46 e 61 (Aromatic amines).
- Legislative Decree no. 21 September 2005 n. 238 (Seveso Directive Ter).
- Presidential Decree 250/89 (Labelling of detergents).
- D.L. 3/4/2006 n. 152 Environmental Regulations.
- D.M. 13 February 2003: third summary list of harmonized rules on the introduction of the Directive. 89/686 / EEC on personal protective equipment.
- Legislative Decree. N. 81 of 9/4/2008: Implementation of Article 1 of Law 3 August, 2007, n. 123, concerning the protection of health and safety in the workplace.
- D.M. January 14, 2008: List of diseases for which and 'compulsory the reporting pursuant to article 139 of the consolidated text approved by Decree of the President of the Republic June 30, 1965, n. 1124, and subsequent amendments and additions.
- Presidential Decree n. 689 of 26.5.1959: Determination of the companies and subject processing, for the purpose of fire prevention, the control of the Corps Command of the firefighters.



<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 22/11/2019 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 5W-30 (SL/CF - A5/B5) – ADVANCE TYPE</p>		

- Directive 98/8 / EC of 16 February 1998 concerning the placing of biocidal products on the market.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for this mixture.

SECTION 16: Other information

Do not use the product for uses different from those projected. In this case, the user may be subject to risks not anticipated.

Full text of phrases referred to in Section 3:

- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.

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
- CCNL - Appendix 1


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).



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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.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.

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Update reasons	-

This sheet replaces those issued in the previous date. The information has been drafted to the best of our knowledge in the field of health, safety and environment, and is intended to enable users of the product - under whose control it takes the use - identify the protective and preventive behaviors useful for a safe operation. The user of the product, prior to uses other than those provided, must see if are needed more information, always considering compliance with the applicable provisions of law and good operational practice. This document does not replace the chemical risk analysis which is the employer's complete responsibility. Are not assumed responsibility in respect of any improper use of the product. The characteristics mentioned should not be considered as a guarantee of specific properties of the product.