




<p>MSDS according to EC Regulation 1907/2006 and seq. amendments (Regulation n.453/2010)</p>	<p>Sheet created on: 11/02/2021 Update N. 00 of -</p>	
<p>XK1 SYNTHETIC PLUS TECHNOLOG ENGINE OIL 0W-20 (SN - C5)</p>		

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

1.1. Product identifier

Identification of the mixture: Mixture
Commercial name: XK1 SYNTHETIC PLUS TECHNOLOGY ENGINE OIL 0W-20 (C5)
Commercial code: OEX0201.01 (1L) – OEX0201.05 (5L) – OEX0201.20 (20L) – OEX0201.60 (60L) – OEX0201.99 (205L)

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

Identified use: Lubricating oil for four-stroke petrol and diesel engines.
Uses advised against: Strictly follow the recommended use.

1.3. Details of the supplier of the safety data sheet

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.



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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Criteria in accordance with Regulation (EC) 1272/2008 (CLP):

The product is not considered as hazardous mixture in accordance with Regulation (EC) 1272/2008 (CLP).

Physico-chemical effects that harmful to human health and the environment:

No other danger.

2.2. Label elements

The product is not considered as hazardous mixture in accordance with Regulation (EC) 1272/2008 (CLP).

Symbol:

None.

Hazard statements:

No hazard statements.

Precautionary statements:

No precautionary statements.

Special provisions:

No special provisions.

Contains:

BENZOIC ACID, 2-HYDROXY-, MONO-C14-18-ALKYL DERIVS., CALCIUM SALTS (2:1):

May cause an allergic skin reaction.

BENZENESULPHONIC ACID, METHYL, MONO-C20-26-ALKYL DERIVATIVES, CALCIUM

SALTS: May cause an allergic skin reaction.

Special provisions based on Annex XVII of REACH and subsequent amendments:

No provisions.

2.3. Other hazards

vPvB substance: None. – PBT substance: None.

Other hazards:

No other hazards.

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

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


>= 40% - < 50% DISTILLATES (PETROLEUM), 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)*



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>= 20% - < 25% DEC-1-ENE, HOMOPOLYMER, HYDROGENATED
REACH No.: 01-2119486452-34-xxxx, CAS: 68037-01-4



3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

>= 15% - < 20% DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC
REACH No.: 01-2119484627-25-xxxx, Index number: 649-467-00-8, CAS: 64742-54-7,
EC: 265-157-1

DECLL (CLP)*

>= 1% - < 3% BIS(NONYLPHENYL)AMINE
REACH No.: 01-2119488911-28, CAS: 36878-20-3, EC: 253-249-4

4.1/C4 Aquatic Chronic 4 H413

>= 1% - < 3% REACTION MASS OF ISOMERS OF:
C7-9-ALKYL 3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE
REACH No.: 01-0000015551-76, Index number: 607-530-00-7, CAS: 125643-61-0, EC:
406-040-9

4.1/C4 Aquatic Chronic 4 H413

>= 1.5% - < 2% BENZOIC ACID, 2-HYDROXY-, MONO-C14-18-ALKYL DERIVS., CALCIUM
SALTS (2:1)
CAS: 114959-46-5, EC: 601-337-1



3.4.2/1B Skin Sens. 1B. H317

TOXICOLOGICAL TESTS**

>= 0.5% - < 1% 2-ETHYLESYL-ZINCODITHIOPHOSPHATE
REACH No.: 01-2119657973-23, CAS: 68784-31-6, EC: 272-238-5



3.3/1 Eye Dam. 1 H318



4.1/C2 Aquatic Chronic 2 H411

>= 0.5% - < 1% BENZENESULPHONIC ACID, METHYL, MONO-C20-26-ALKYL
DERIVATIVES, CALCIUM SALTS
CAS: 722503-69-7




3.4.2/1B Skin Sens. 1B. H317

TOXICOLOGICAL TESTS**

*DECLL (CLP): Substance classified in accordance with note L, of annex VI of Regulation (EC) 1272/2008 - CLP. The classification as a carcinogen need not apply if it can be shown that the



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substance contains less than 3 % DMSO extract as measured by IP 346 '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.

** TOXICOLOGICAL TESTS: the supplier declares to be in possession of experimental data on the substances indicated which show that they do not cause allergic skin reactions when used in the prescribed quantities and therefore do not involve the classification "skin sensitizer cat.1B; H317".

For the full text of hazard statements, see Section 16.

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

Other components determined as non-hazardous until 100% completion of the formula.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

High pressure jet injuries require immediate surgery and possibly steroid therapy, to minimize tissue damage and loss of function.

Any substance, in the case of accidents involving pressurized pipes and similars, can be accidentally injected into the subcutaneous tissues, even without apparent external injuries. In this case it is necessary to take the injured person to hospital as soon as possible for appropriate treatment.

Remove contaminated clothing.

Wash with plenty of soap and water.

In case of eye contact:

Immediately wash eyes with plenty of water for a few minutes holding the eyelids apart. Seek medical attention in case of persisting pain and redness.

In case of ingestion:

Do not induce vomiting under any circumstances. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

In case of inhalation:

In case of exposure to high concentrations of vapors and mists, remove the victim from the contaminated area by taking him to a well-ventilated place. Seek medical attention if necessary.

Take the injured person to fresh air and keep him 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.



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Use class B fire extinguishing media: carbon dioxide, dry chemical powder, foam, sand, earth.
Water spray.
Carbon dioxide (CO₂).

Unsuitable extinguishing media:

Avoid the use of water jets. Use water jets only to cool the surfaces of the containers exposed to fire.
No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Avoid inhaling combustion fumes as in a fire, compounds of chlorine, sulfur, nitrogen, unburnt hydrocarbons and other potentially dangerous derivatives can be formed.
Do not inhale the gases produced by the explosion and combustion.
Burning produces heavy smoke.

5.3. Advice for firefighters

Note: Cool the fire affected containers with water to avoid any explosion and the spread of the fire. Use suitable respiratory equipment.

The contaminated extinguishing water should be collected separately. Do not discharge it into the sewer system.

If it can be done without danger, move undamaged containers from the area of immediate danger.

Protective clothing complete with self-breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes by wearing suitable protective clothing.

In case of large spillage, especially in confined places, avoid breathing the vapors by ventilating the environment or wear protective equipment for the respiratory tract.

Wear personal protective equipment.

Move people to a safe place.

See protective measures in Sections 7 and 8.

6.2. Environmental precautions

Do not allow the product to enter into sewers/soil/surface or ground water. Notify the respective authorities.

Prevent penetration into the soil/subsoil. Prevent run-off into surface water or sewage.

Retain contaminated washing water and eliminate it.


In the event of a gas leak or entry into waterways, soil or the sewer system, inform the responsible authorities.

Material suitable for collection: absorbent, organic material, sand.

6.3. Methods and material for containment and cleaning up

Dike in case of leakage of significant quantities of product. Contain the spills of small quantities of product with earth, sand or other inert absorbent material. Transfer to appropriate



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waterproof containers suitable for the storage and transport of the collected material. Dispose of in accordance with current legislation. Wash with plenty of water.

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

Avoid breathing aerosols or vapors of the product, ensure adequate ventilation of the work environment, especially if it is closed.

Avoid contact with skin and eyes, inhalation of vapors and mists.

At work do not eat or drink.

Please also refer to SECTION 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed and properly labeled.

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

The structure of the storage area, the characteristics of the tanks, the equipment and the operating procedures must comply with the relevant legislation in the European, national or local context.

If the product is supplied in containers, store only in the original container or in a container suitable for the type of product.

Keep the product in the original containers stored in environments and conditions that ensure the control and containment of leaks. Store in a cool place, away from any source of heat or ignition and direct exposure to sunlight. Avoid the accumulation of electrostatic charges. Keep the containers tightly closed. Ensure adequate ventilation of the premises.

Keep away from food, drink and feed.

Incompatible materials:

None in particular. See also the following SECTION 10.

Indication for the premises:

Adequately ventilated rooms.

7.3. Specific end use(s)

None in particular.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters


None in particular under normal conditions of use.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
ACGIH-2011 - LTE(8h): 5 mg/m³ - Note: TWA-TLV (mineral oil mists / aerosols).

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
ACGIH-2011 - LTE(8h): 5 mg/m³ - Note: TWA-TLV (mineral oil mists / aerosols).

DNEL values:



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DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
Professional worker: 5.4 mg/m³ - Consumer: 1.2 mg/m³ - Exposure: Inhalation Human -
Frequency: Long term, local effects - Note: mineral oil mists / aerosols.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
Professional worker: 5.4 mg/m³ - Consumer: 1.2 mg/m³ - Exposure: Inhalation Human -
Frequency: Long term, local effects - Note: mineral oil mists / aerosols.

BIS(NONYLPHENYL)AMINE - CAS: 36878-20-3
Professional worker: 0.62 mg/kg - Consumer: 0.31 mg/kg - Exposure: Dermal Human -
Frequency: Long term, systemic effects
Professional worker: 4.37 mg/m³ - Consumer: 1.09 mg/m³ - Exposure: Inhalation
Human - Frequency: Long term, systemic effects
Consumer: 0.31 mg/kg - Exposure: Oral Human - Frequency: Long term, systemic
effects

REACTION MASS OF ISOMERS OF: C7-9-ALKYL
3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE - CAS: 125643-61-0
Professional worker: 20 mg/kg - Exposure: Dermal Human - Frequency: Short term,
systemic effects
Professional worker: 0.22 mg/kg - Exposure: Dermal Human - Frequency: Long term,
systemic effects

PNEC values:

BIS(NONYLPHENYL)AMINE- CAS: 36878-20-3
Compartment: Freshwater - Value: 0.1 mg/l
Compartment: Marine water - Value: 0.01 mg/l
Compartment: Freshwater sediment - Value: 132000 mg/kg
Compartment: Marine water sediment- Value: 13200 mg/kg
Compartment: Soil - Value: 263000 mg/kg

REACTION MASS OF ISOMERS OF: C7-9-ALKYL
3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE - CAS: 125643-61-0
Compartment: Freshwater - Value: 0.0043 mg/l
Compartment: Marine water - Value: 0.00043 mg/l
Compartment: Freshwater sediment - Value: 233 mg/kg
Compartment: Marine water sediment - Value: 23.3 mg/kg
Compartment: Soil - Value: 189 mg/kg

8.2. Exposure controls


Eye/face protection:

Wear safety glasses if there is a risk of contact with the product.
For more information refer to the EN 166 standard.
Glasses with side protection.

Skin protection:

Use overalls and aprons made of suitable material; immediately change contaminated clothing
and wash it thoroughly before reuse.
It is advisable to maintain good personal hygiene and work clothing.
For more information refer to the EN 465/466/467 standards.



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- Work suit.
- Hand protection:
- Wear work gloves (for example in neoprene, nitrile or PVC), preferably with internal lining resistant to mineral oils or solvents. Gloves must be replaced at the first signs of wear. Put on gloves after proper hand cleaning.
- In the case of non-prolonged contacts, the use of barrier creams can be a useful protection tool.
- The selection of suitable gloves does not only depend on the material, but also on further marks of quality which may vary from manufacturer to manufacturer.
- For more information, refer to the EN 374 standard.
- Butyl rubber (butyl rubber).
PVC (polyvinyl chloride).
- Respiratory protection:
- If the operating procedures and other means to limit the exposure of workers are not adequate - in order to respect the exposure limit values specified in SECTION 8 - other means of respiratory protection are necessary: masks with cartridges for organic vapors and for dusts / mists (e.g. activated carbon mask).
- Not needed for normal use.
- Thermal hazards:
- Wear protective clothing during operations involving hot material: heat-resistant clothing (with pants over the boots and sleeves over the cuff of the gloves), heavy heat-resistant and non-slip boots (e.g. leather).
- Environmental exposure controls:
- Storage facilities must be equipped with appropriate systems to prevent soil and water contamination in the event of leaks or spills.
- In case of discharge to an urban wastewater treatment plant, no treatment is required.
- Do not release into the environment.
- Prevent the release of undiluted substances or recover them from wastewater.
- Refer to the current legislation on atmospheric pollution (DPR 24/05/88, n. 203), soil pollution (DM 25/10/1999, n. 471) and water (D.Lgs. 11/05 / 1999, no. 152).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and color:	CLEAR 3,5 L	ASTM D1500
Odour:	CHARACTERISTIC MINERAL	
Odour threshold:	N.A.	
pH:	N.A.	
Melting point/freezing point:	-45 °C (pour point)	ASTM D5950
Boiling point or initial boiling point and boiling range:		N.A.
Flammability solid/gas:	N.A.	
Upper/lower flammability or explosive limits:		N.A.
Vapour density:	N.A.	
Flash point:	230 °C	ASTM D92
Evaporation rate:	N.A.	
Vapour pressure:	N.A.	
Relative density:	0.850 g/cm ³ at 20 °C	ASTM D4052
Water solubility:	INSOLUBLE	
Fat solubility:	N.A.	
Partition coefficient (n-octanol/water):		N.A.



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Auto-ignition temperature:	N.A.	
Decomposition temperature:	N.A.	
Viscosity:	47 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.
Characteristic properties of groups of substances:	N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable product at room temperature.
Stable under normal conditions.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particolare.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects


Toxicological information of the mixture:

May cause slight irritation.
General warning: the high pressure injection of the product into the skin can lead to local necrosis if the product is not surgically removed.
Frequent and prolonged contacts can degrease and irritate the skin, also causing dermatitis.
Prolonged exposure to the product can cause drowsiness and dizziness.
Prolonged exposure to product vapors or mists can cause irritation to the respiratory tract.

Toxicological information concerning the main substances present in the mixture:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7
a) acute toxicity:



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Test: LD50 - Via: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Via: Skin - Species: Rabbit > 2000 mg/kg
Test: LD50 - Via: Inhalation > 5 mg/l

g) reproductive toxicity:

Test: NOAEL - Via: Skin > 2000 mg/kg - Note: this substance showed no effects on reproductive parameters.

i) specific target organ toxicity (STOT) – Repeated exposure:

Test: NOAEL - Via: Inhalation > 220 mg/m³ - Note: local effects.

Test: NOAEL - Via: Inhalation > 980 mg/m³ - Note: systemic effects.

DEC-1-ENE, HOMOPOLYMER, HYDROGENATED - CAS: 68037-01-4

a) acute toxicity:

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

Test: LC50 - Via: Inhalation - Species: Rat > 5.2 mg/l - Duration: 4h

Test: LD50 - Via: Skin - Species: Rat > 2000 mg/kg

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7

a) acute toxicity:

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

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

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

g) reproductive toxicity:

Test: NOAEL - Via: Skin > 2000 mg/kg - Note: this substance showed no effects on reproductive parameters.

i) specific target organ toxicity (STOT) - Repeated exposure:

Test: NOAEL - Via: Inhalation > 220 mg/m³ - Note: local effects.

Test: NOAEL - Via: Inhalation > 980 mg/m³ - Note: systemic effects.

BIS(NONYLPHENYL)AMINE - CAS: 36878-20-3

a) acute toxicity:

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

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

REACTION MASS OF ISOMERS OF: C7-9-ALKYL

3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE - CAS: 125643-61-0

a) acute toxicity:

Test: LD50 - Via: Oral - Species: Rat > 2000 mg/kg - Note: OECD TG 401.

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

b) skin corrosion/irritation:

Test: Irritating to skin - Via: Skin - Species: Rabbit - Note: OECD TG 404.

c) serious eye damage/irritation:

Test: Irritating to the eyes- Species: Rabbit - Note: OECD TG 405.

2-ETHYLSYL-ZINCODITHIOPHOSPHATE - CAS: 68784-31-6


a) acute toxicity:

Test: LD50 - Via: Oral - Species: Rat > 2000 mg/kg

Unless otherwise specified, the data required by the Regulation indicated below are to be understood as N.A.:

a) acute toxicity;



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- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;

BENZOIC ACID, 2-HYDROXY-, MONO-C14-18-ALKYL DERIVS., CALCIUM SALTS (2:1) - CAS: 114959-46-5

The supplier declares to be in possession of experimental data on the substances indicated which show that they do not cause allergic skin reactions when used in the prescribed quantities and therefore do not involve the classification "skin sensitizer cat.1B; H317".

BENZENESULPHONIC ACID, METHYL, MONO-C20-26-ALKYL DERIVATIVES, CALCIUM SALT- CAS: 722503-69-7

The supplier declares to be in possession of experimental data on the substances indicated which show that they do not cause allergic skin reactions when used in the prescribed quantities and therefore do not involve the classification "skin sensitizer cat.1B; H317".

- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) specific target organ toxicity (STOT) – Single exposure;
- i) specific target organ toxicity (STOT) - Repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Use according to good working practices, avoid dispersing the product in the environment.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7

a) Acute aquatic toxicity:

Endpoint: EL50 > 10000 mg/l - Note: invertebrates.

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) Chronic aquatic toxicity:

Endpoint: NOELR > 10 mg/l - Note: invertebrates.

Endpoint: NOELR - Species: Fish = 10 mg/l

DEC-1-ENE, HOMOPOLYMER, HYDROGENATED - CAS: 68037-01-4

a) Acute aquatic toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96


Endpoint: LC50 - Species: Pimephales Promelas > 750 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 190 mg/l - Duration h: 48

e) Toxicity to plants:

Endpoint: NOELR - Species: Selenastrum Capricornutum = 1000 mg/l - Duration h: 72



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DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC - CAS: 64742-54-7

a) Acute aquatic toxicity:

Endpoint: EL50 > 100 mg/l - Note: invertebrates.

Endpoint: NOELR - Species: Algae > 100 mg/l

b) Chronic aquatic toxicity:

Endpoint: LL50 - Species: Fish = 10 mg/l

BIS(NONYLPHENYL)AMINE - CAS: 36878-20-3

b) Chronic aquatic toxicity:

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

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

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

REACTION MASS OF ISOMERS OF: C7-9-ALKYL

3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE - CAS: 125643-61-0

b) Chronic aquatic toxicity:

Endpoint: LC50 - Species: Danio Rerio > 74 mg/l - Duration h: 96 - Note: OECD TG 203.

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 24 - Note: OECD TG 202.

Endpoint: EC50 - Species: Algae > 3 mg/l - Duration h: 72 - Note: OECD TG 201.

2-ETHYLSYL-ZINCODITHIOPHOSPHATE - CAS: 68784-31-6

a) Acute aquatic toxicity:

Endpoint: LC50 - Species: Rainbow trout = 4.4 mg/l - Duration h: 96

Endpoint: NOEC - Species: Rainbow trout = 3.2 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 75 mg/l - Duration h: 48

Endpoint: NOEC - Species: Daphnia = 32 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia > 0.8 mg/l - Duration h: 504

Endpoint: NOEC - Species: Daphnia = 0.4 mg/l - Duration h: 504

c) Toxicity to bacteria:

Endpoint: EC50 - Species: Pseudomonas Putida = 380 mg/l - Duration h: 2.4

e) Toxicity to plants:

Endpoint: EC50 - Species: Algae = 410 mg/l - Duration h: 72

Endpoint: NOEC - Species: Algae = 220 mg/l - Duration h: 72

12.2. Persistence and degradability

The product floats on water.

The product is superficially adsorbed in the soil.

The product hardly evaporates.

12.3. Bioaccumulative potential

BIS(NONYLPHENYL)AMINE - CAS: 36878-20-3

Bioaccumulation: N.A. Test: Kow - Partition coefficient 7.6 - Duration: 0.1 day - Note:

N.A.


REACTION MASS OF ISOMERS OF: C7-9-ALKYL

3-(3,5-DI-TERT-BUTYL-4-HYDROXYPHENYL)PROPIONATE - CAS: 125643-61-0

Bioaccumulation: N.A. Test: BCF - Bioconcentration factor 260 - Duration: N.A. - Note:

OECD TG 305.



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2-ETHYLESYL-ZINCODITHIOPHOSPHATE - CAS: 68784-31-6

Bioaccumulation: N.A. Test: Kow - Partition coefficient 3.6 - Duration: 0.1 day - Note:
N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB substance: None. – PBT substance: None.

12.6. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste products (and emulsions in the case of water-soluble cooling lubricants) and containers by transferring them to authorized companies in compliance with the provisions contained in the D.P.R. n. 691 of 23/08/82 (Compulsory Consortium of Used Oils) and in Part IV of the Environmental Code (Legislative Decree no. 152 of 3/4/2006) and subsequent amendments.

Do not discharge into sewers, drains or waterways. Observe the laws in force.

Recover if possible. Operate according to local and national regulations.

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

SECTION 14: Transport information

14.1. UN number

Not subject to the conventions of carriage of dangerous goods.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.


14.6. Special precautions for user

N.A.

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

N.A.



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SECTION 15: Regulatory information

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

- Legislative Decree 3/2/1997 n. 52 (Classification, packaging and labeling of dangerous substances)
- Legislative Decree 14/3/2003 n. 65 (Classification, packaging and labeling of dangerous preparations)
- Legislative Decree 9/4/2008 n. 81
- Ministerial Decree on Work 26/02/2004 (Professional Exposure Limits)
- Ministerial Decree 03/04/2007 (Implementation of Directive (EC) 2006/8)
- Regulation (EC) no. 1907/2006 (REACH) and subsequent amendments
- Regulation (EC) no. 1272/2008 (CLP) and subsequent amendments

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

None.


Where applicable, please refer to the following regulations:

- Ministerial Circulars 46 and 61 (Aromatic amines).
- Legislative Decree 21 September 2005 no. 238 (Seveso Ter Directive).
- D.P.R. 250/89 (Detergent labeling).
- D.L. 3/4/2006 n. 152 Environmental regulations.
- Ministerial Decree of 13 February 2003: third summary list of harmonized standards concerning the implementation of Directive no. 89/686/EEC relating to personal protective equipment.
- Legislative Decree no. 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.
- Ministerial Decree January 14, 2008: List of diseases for which reporting is mandatory pursuant to and for the purposes of article 139 of the consolidated act approved by decree of the President of the Republic June 30, 1965, n. 1124, and subsequent amendments and additions.
- D.P.R. n. 689 of 26/05/1959: Determination of the companies and processes subject, for the purposes of fire prevention, to the control of the Command of the Fire Brigade.
- Directive 98/8/EC of 16 February 1998 relating to the placing on the market of biocides.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.



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SECTION 16: Other information

Do not use the product for uses other than those intended. In this case, the user may be subject to unforeseen risks.

Text of the sentences used in section 3:

- H304 May be fatal if swallowed and enters airways.
- H413 May cause long lasting harmful effects to aquatic life.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.

This document has been written by an SDS technician who has received adequate training.

Literature references:

- 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 - Annex 1.
- National Institute of Health - National Inventory of Chemical Substances..


The information contained herein is based on our knowledge as of the above date. They refer only to the product indicated and do not constitute a guarantee of particular quality.

The user is required to ensure the suitability and completeness of such information in relation to the specific use he must make of it.

This safety data sheet supersedes all previous versions.

- ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
- CAS: Chemical Abstracts Service (division of the American Chemical Society).
- CLP: Classification, Labelling, Packaging.
- DNEL: Derived-No-Effect-Level.
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- GefStoffVO: Ordinance on Hazardous Substances in Germany.
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
- IATA: International Air Transport Association.
- IATA-DGR: Dangerous Goods Regulations of the "International Air Transport Association " (IATA).
- ICAO: Safe Transport of Dangerous Goods by Air
- ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO).
- IMDG: International Maritime Dangerous Goods
- INCI: International nomenclature of cosmetic ingredients
- KSt: Coefficient of explosion.



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LC50:	Lethal concentration resulting in 50 % mortality.
LD50:	Lethal dose resulting in 50 % mortality (median lethal dose)
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration
RID:	Regulations 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 limit value.
TWATLV:	Threshold limit value for the 8-hour weighted average. (ACGIH Standard).
WGK:	Water hazard class (Germany).

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This sheet cancels and replaces those issued on a previous date. The information contained herein is based on our current knowledge on health, safety and the environment, and is intended to allow the user of the product - under whose control it is used - to identify preventive and protective behaviours useful for the purpose of safe operation. The user of the product, prior to uses other than those envisaged, must check whether other information is required, always considering compliance with the relevant laws and good operating practice. This document does not replace the chemical risk analysis, which remains the sole responsibility of the employer. No responsibility is assumed for any improper use of the product. The characteristics mentioned should not be considered as a guarantee of specific properties of the product.