

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



LUKOIL EFFORSE 4004

Version
2.0

Revision Date:
11.09.2017

Date of last issue: 02.06.2015
Date of first issue: 02.06.2015

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

1.1 Product identifier

Trade name : LUKOIL EFFORSE 4004
Product code : 566025

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

Use of the Sub-
stance/Mixture : Engine oil

1.3 Details of the supplier of the safety data sheet

Company : LUKOIL Lubricants Europe GmbH
Ölhafen Lobau – Uferstr. 8
1220 Wien
Austria

Telephone : +43 (1) 205 222 - 8800
Responsible/issuing person : info.product-safety@lukoil.com

1.4 Emergency telephone number

Telephone : VIZ - Vergiftungszentrale
24h/7d
+43 1 406 43 43

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

|| Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

|| Not a hazardous substance or mixture.

Precautionary statements :

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling

EUH210 Safety data sheet available on request.

EUH208 Contains C14-16-18 Alkyl phenol. May produce an allergic reaction.

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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Material can create slippery conditions.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture
Hydrocarbons
Additives

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
The classification as a carcinogen need not apply if it can be shown that the 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. :			
distillates (petroleum), solvent-refined hydrotreated heavy, hydrogenated	94733-08-1 305-588-5 01-2119527818-28		>= 60 - <= 90
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1 01-2119484627-25		<= 10
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1 270-128-1 01-2119491299-23	Aquatic Chronic 3; H412	>= 1 - < 2,5
C14-16-18 Alkyl phenol	01-2119498288-19	Skin Sens. 1B; H317 STOT RE 2; H373	>= 0,1 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : First aider needs to protect himself.

If inhaled : If breathed in, move person into fresh air.
Move to fresh air in case of accidental inhalation of vapours.

In case of skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser.
If on clothes, remove clothes.

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- In case of eye contact : Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do NOT induce vomiting.
Obtain medical attention.
When symptoms persist or in all cases of doubt seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Gastrointestinal discomfort
Stomach/intestinal disorders
Vomiting
Pneumonia
irritant effects
- Risks : May cause eye irritation.
Risk of product entering the lungs on vomiting after ingestion.
Aspiration may cause pulmonary oedema and pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Later control for pneumonia and lung oedema.
-

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.
Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Extinguishing media - large fires Complete suit protecting against chemicals
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Keep people away from and upwind of spill/leak.
Use personal protective equipment.
First aider needs to protect himself.
Avoid contact with skin, eyes and clothing.
Ensure adequate ventilation, especially in confined areas.
The danger areas must be delimited and identified using relevant warning and safety signs.
Refer to section 15 for specific national regulation.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage.
Avoid subsoil penetration.
Do not contaminate water.
Prevent product from entering drains.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Soak up with oil absorbent material.
Offer surplus and non-recyclable solutions to a licensed disposal company.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Take care to avoid waste and spillage when weighing, loading and mixing the product.
Avoid formation of aerosol.
Use only in area provided with appropriate exhaust ventilation.
Provide exhaust ventilation close to floor level.
Do not get on skin or clothing.
Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion : To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition. Keep in a bunded area. Do not smoke.

Hygiene measures : Remove all contaminated clothing under the shower.
Wash contaminated clothing before re-use.
Do not get in eyes.

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Avoid contact with skin and clothing.

Fire-fighting class : Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep tightly closed.
Keep in a well-ventilated place.
To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Further information on storage conditions : Keep away from heat and sources of ignition.

Advice on common storage : Do not store together with explosives, gases, oxidizing solids, products which form flammable gases in contact with water, oxidizing products, infectious products and radioactive products.
Do not store together with oxidizing and self-igniting products.
Do not store together with explosives, oxidizing agents, organic peroxides and infectious products.
Do not store together with acids and ammonium salts.

Other data : Keep away from direct sunlight.

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
distillates (petroleum), solvent-refined hydrotreated heavy, hydrogenated	94733-08-1	TRK-TMW	20 ml/m ³	AT TRK
Further information	The 8-hr TWA-values for hydrocarbon vapours are: 200 ml/m ³ for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone < 25% 70 ml/m ³ for hydrocarbon mixtures with a content of aromatic hydrocarbons 1 - 25% and hexanes < 1% 20 ml/m ³ for hydrocarbon mixtures with a content of aromatic hydrocarbons > 25% 50 ml/m ³ for hydrocarbon mixtures with a content of n-hexane content >= 5% 170 ml/m ³ for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone >= 25% The indicated contents are weight% in solution. In the following cases the			

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	lowest value applies: if the classification of a hydrocarbon mixture is not known or if the employees are exposed to the vapours of different hydrocarbon mixtures at the same time. Unimpeded the first paragraph the TWA or TRK-values apply of the substances contained in the vapour mixtures and, if a carcinogenic hydrocarbon appears in the vapours for which no TWA- or TRK-value is established, the obligation exists to keep the concentrations of these substances in the air of the workplace as low as possible at all times.			
		TRK-KZW	40 ml/m3	AT TRK
Further information	The 8-hr TWA-values for hydrocarbon vapours are: 200 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone < 25% 70 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons 1 - 25% and hexanes < 1% 20 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons > 25% 50 ml/m3 for hydrocarbon mixtures with a content of n-hexane content >= 5% 170 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone >= 25% The indicated contents are weight% in solution. In the following cases the lowest value applies: if the classification of a hydrocarbon mixture is not known or if the employees are exposed to the vapours of different hydrocarbon mixtures at the same time. Unimpeded the first paragraph the TWA or TRK-values apply of the substances contained in the vapour mixtures and, if a carcinogenic hydrocarbon appears in the vapours for which no TWA- or TRK-value is established, the obligation exists to keep the concentrations of these substances in the air of the workplace as low as possible at all times.			
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	TRK-TMW	20 ml/m3	AT TRK
Further information	The 8-hr TWA-values for hydrocarbon vapours are: 200 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone < 25% 70 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons 1 - 25% and hexanes < 1% 20 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons > 25% 50 ml/m3 for hydrocarbon mixtures with a content of n-hexane content >= 5% 170 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone >= 25% The indicated contents are weight% in solution. In the following cases the lowest value applies: if the classification of a hydrocarbon mixture is not known or if the employees are exposed to the vapours of different hydrocarbon mixtures at the same time. Unimpeded the first paragraph the TWA or TRK-values apply of the substances contained in the vapour mixtures and, if a carcinogenic hydrocarbon appears in the vapours for which no TWA- or TRK-value is established, the obligation exists to keep the concentrations of these substances in the air of the workplace as low as possible at all times.			
		TRK-KZW	40 ml/m3	AT TRK
Further information	The 8-hr TWA-values for hydrocarbon vapours are: 200 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone < 25% 70 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons 1 - 25% and hexanes < 1% 20 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons > 25% 50 ml/m3 for hydrocarbon mixtures with a content of n-hexane content >= 5% 170 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone >= 25% The indicated contents are weight% in solution. In the following cases the			

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		TRK-KZW	40 ml/m3	AT TRK
Further information	The 8-hr TWA-values for hydrocarbon vapours are: 200 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone < 25% 70 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons 1 - 25% and hexanes < 1% 20 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons > 25% 50 ml/m3 for hydrocarbon mixtures with a content of n-hexane content >= 5% 170 ml/m3 for hydrocarbon mixtures with a content of aromatic hydrocarbons < 1%, a n-hexane content < 5% and a cyclo-/isohexanone >= 25% The indicated contents are weight% in solution. In the following cases the lowest value applies: if the classification of a hydrocarbon mixture is not known or if the employees are exposed to the vapours of different hydrocarbon mixtures at the same time. Unimpeded the first paragraph the TWA or TRK-values apply of the substances contained in the vapour mixtures and, if a carcinogenic hydrocarbon appears in the vapours for which no TWA- or TRK-value is established, the obligation exists to keep the concentrations of these substances in the air of the workplace as low as possible at all times.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Workers	Skin contact	Long-term systemic effects	0,62 mg/kg
	Workers	Inhalation	Long-term systemic effects	4,37 mg/m3
	Consumers	Skin contact	Long-term systemic effects	0,31 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1,09 mg/m3

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	Consumers	Ingestion	Long-term systemic effects	0,31 mg/kg
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Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Fresh water	0,051 mg/l
	Marine water	0,0051 mg/l
	Fresh water sediment	9320 mg/kg
	Marine sediment	932 mg/kg
	Soil	1860 mg/kg

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Apply technical measures to comply with the occupational exposure limits.

Personal protective equipment

Eye protection : Wear the following personal protective equipment:
Safety glasses with side-shields conforming to EN166

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,40 mm

Material : Viton (R)
Break through time : 480 min
Glove thickness : 0,70 mm

Material : butyl-rubber
Break through time : 120 min
Glove thickness : 0,70 mm

Material : Neoprene
Break through time : 60 min
Glove thickness : 0,60 mm

Remarks : Protective gloves complying with EN 374.
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different

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from one producer to the other.

- Skin and body protection : Flame retardant protective clothing
Workers should wear antistatic footwear.
- Respiratory protection : Use respirator when performing operations involving potential exposure to vapour of the product.
Respirator with filter type A
The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Suitable respiratory equipment:

Self-contained breathing apparatus (EN 133)
- Protective measures : Wear suitable protective equipment.
Avoid contact with the skin and the eyes.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid
- Colour : light brown
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- pour point : ≤ -21 °C
Method: ISO 3016
- : No data available
- Flash point : ≥ 230 °C
Method: Cleveland open cup
- Evaporation rate : No data available
- Burning rate : No data available
- Upper explosion limit : No data available
- Lower explosion limit : No data available

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Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	0,881 g/cm ³ (20 °C) Method: DIN 51757
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	not determined
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	122 mm ² /s (40 °C) Method: ASTM D 445
Flow time	:	No data available
Explosive properties	:	Not applicable
Oxidizing properties	:	Not applicable

9.2 Other information

Self-heating substances	:	No data available
Impact sensitivity	:	No data available
Surface tension	:	No data available
Refractive index	:	No data available
	:	No data available
Molecular weight	:	No data available
Self-ignition	:	

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SECTION 10: Stability and reactivity

10.1 Reactivity

The product is chemically stable.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Incompatible with strong acids and oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Acute toxicity (other routes of administration) : No data available

Components:

|| distillates (petroleum), solvent-refined hydrotreated heavy, hydrogenated:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC50 (Rat): > 5,53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

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Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402
Information given is based on data obtained from similar substances.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
Test substance: yes
Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Test substance: yes

Skin corrosion/irritation

Product:

slight irritation
Non persistent irritation

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Test substance: yes
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Non persistent irritation

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
Test substance: yes
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Result: May cause sensitisation of susceptible persons.

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Components:

|| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Test Type: Maximisation Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
Test substance: yes
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : No data available

Genotoxicity in vivo : No data available

Germ cell mutagenicity- Assessment : No data available

Components:

|| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative
Test substance: yes

Genotoxicity in vivo : Species: Mouse
Result: negative

Carcinogenicity

Product:

This information is not available.

Carcinogenicity - Assessment : No data available

Components:

|| distillates (petroleum), solvent-refined hydrotreated heavy, hydrogenated:

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

Reproductive toxicity

Product:

Effects on fertility :

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This information is not available.

Effects on foetal development : This information is not available.

Reproductive toxicity - Assessment : No data available

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Effects on fertility : Species: Rat

Method: OECD Test Guideline 422
Test substance: yes
negative

STOT - single exposure

Product:

No data available

STOT - repeated exposure

Product:

No data available

Repeated dose toxicity

Product:

This information is not available.

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity

Product:

No data available

Further information

Product:

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

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Toxicity to fish (Chronic toxicity) : No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : No data available

Ecotoxicology Assessment

Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Components:

|| distillates (petroleum), solvent-refined hydrotreated heavy, hydrogenated:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Information given is based on data obtained from similar substances.

NOEL : >= 100 mg/l

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10.000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Information given is based on data obtained from similar substances.

NOEL : >= 10.000 mg/l

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL: 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Information given is based on data obtained from similar substances.

|| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

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- Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: yes
Method: OECD Test Guideline 203
The product has low solubility in the test medium. An aqueous dispersion was tested.
Based on available data, the classification criteria are not met.
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: yes
Method: OECD Test Guideline 202
The product has low solubility in the test medium. An aqueous dispersion was tested.
Harmful to aquatic organisms.
- Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: yes
Method: OECD Test Guideline 201
The product has low solubility in the test medium. An aqueous dispersion was tested.
Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product:

- Biodegradability : Result: Not readily biodegradable.
- Physico-chemical removability : The product is insoluble and floats on water.
May be separated mechanically in waste water plants.
- Impact on Sewage Treatment : No data available

Components:

|| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

- Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not biodegradable
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
Test substance: yes
According to the results of tests of biodegradability this product is not readily biodegradable.

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12.3 Bioaccumulative potential

Product:

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : not determined

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Bioaccumulation : Accumulation in aquatic organisms is expected.

Partition coefficient: n-octanol/water : log Pow: > 6

12.4 Mobility in soil

Product:

Mobility : Should not be released into the environment.

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Mobility : Medium: Soil
After release, adsorbs onto soil.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information : Should not be released into the environment.
Do not let product enter drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : ÖNORM S 2100, key code group 54

Dispose of in accordance with local regulations.

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Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : not required

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

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Directive 1999/13/EC on the limitation of emissions of : not required under normal use
volatile organic compounds

Fire Hazard Class : Exempt

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Water contaminating class : WGK 1 slightly water endangering
(Germany)

15.2 Chemical safety assessment

No data available

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SECTION 16: Other information

Full text of H-Statements

- H317 : May cause an allergic skin reaction.
H373 : May cause damage to organs through prolonged or repeated exposure.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

- Aquatic Chronic : Chronic aquatic toxicity
Skin Sens. : Skin sensitisation
STOT RE : Specific target organ toxicity - repeated exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

- Other information : Changes since the last version are highlighted in the margin.
This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

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