LUKOIL GENESIS SPECIAL C3 5W-40

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2.0	18.02.2016	563105	Date of first issue: 30.07.2015
			Print Date: 30.11.2016

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

1.1 Product identifier

Trade name : LUKOIL GENESIS SPECIAL C3 5W-40
Product code : 563105

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

Use of the Substance/Mixture : Engine oil

1.3 Details of the supplier of the safety data sheet

Company : Lukoil Lubricants Europe Oy
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)

Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements	:	H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	:	P102	Keep out of reach of children.
		Prevention:	
		P273	Avoid release to the environment.
		Disposal:	
		P501	Dispose of contents/ container to an approved waste disposal plant.

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 (REGULATION (EC) No 1272/2008)	Concentration [%]
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), hydrotreated heavy paraffinic	64742-54-7 265-157-1 01-2119484627-25	Asp. Tox.1; H304	>= 30 - < 50
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1	Asp. Tox.1; H304	>= 10 - < 20
bis(nonylphenyl)amine	36878-20-3 253-249-4 01-2119488911-28	Aquatic Chronic4; H413	>= 1 - < 2,5
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	2215-35-2 218-679-9 01-2119953275-34	Skin Irrit.2; H315 Eye Dam.1; H318 Aquatic Chronic2; H411	>= 0,25 - < 1
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8 283-392-8 01-2119493626-26	Aquatic Chronic2; H411	>= 0,25 - < 1
Butyl hydroxytoluene	128-37-0 204-881-4 01-2119565113-46	Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,1 - < 0,25
diphenylamine	122-39-4 204-539-4 01-2119488966-13	Acute Tox.3; H301 Acute Tox.3; H311 Acute Tox.3; H331 STOT RE2; H373	>= 0,1 - < 0,25

		Aquatic Acute1; H400 Aquatic Chronic1; H410	
Phenol, dodecyl-, branched	121158-58-5 310-154-3 01-2119513207-49	Eye Irrit.2; H319 Repr.2; H361 Skin Irrit.2; H315 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,1 - < 0,25

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.

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.

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. 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.

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), hydrotreated heavy paraffinic	64742-54-7	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.			
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	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	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.			
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	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.			
Butyl hydroxytoluene	128-37-0	TMW	10 mg/m3	AT OEL
diphenylamine	122-39-4	TMW	0,7 ppm	AT OEL
Further information	Risk of skin absorption			
diphenylamine	122-39-4	TMW (inhalable	5 mg/m3	AT OEL

		fraction)		
Further information	Risk of skin absorption			
diphenylamine	122-39-4	KZW	1,4 ppm	AT OEL
Further information	Risk of skin absorption			
diphenylamine	122-39-4	KZW (inhalable fraction)	10 mg/m3	AT OEL
Further information	Risk of skin absorption			

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

bis(nonylphenyl)amine : End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0,62 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 4,37 mg/m3
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0,31 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 1,09 mg/m3
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term systemic effects
Value: 0,31 mg/kg

Butyl hydroxytoluene : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Systemic effects
Value: 5,8 mg/m3
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Systemic effects
Value: 1,74 mg/m3
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Systemic effects
Value: 8,3 mg/kg
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Systemic effects
Value: 5 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

bis(nonylphenyl)amine : Fresh water
Value: 0,1 mg/l
Marine water
Value: 0,01 mg/l

Fresh water sediment
Value: 132000 mg/kg
Marine sediment
Value: 13200 mg/kg
Soil
Value: 263000 mg/kg

8.2 Exposure controls

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
Directive : DIN EN 374
Viton (R)
480 min
0,70 mm
DIN EN 374
butyl-rubber
120 min
0,70 mm
DIN EN 374
Neoprene
60 min
0,60 mm
DIN EN 374

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special work-place 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 from one producer to the other.

Skin and body protection : Flame retardant protective clothing
Workers should wear antistatic footwear.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
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)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	brown
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	No data available
pour point	:	<= -30 °C Method: ISO 3016
	:	No data available
Flash point	:	>= 200 °C Method: ISO 2592, 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
Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	No data available
Density	:	0,847 g/cm3 (20 °C) Method: ASTM D 4052
Bulk density	:	No data available
Water solubility	:	< 0,01 g/l (20 °C, 1.013 mbar)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	not determined
Auto-ignition temperature	:	No data available
Ignition temperature	:	No data available
Thermal decomposition	:	No data available

Viscosity, dynamic	:	<= 6.600 mPa.s (-30 °C) Method: DIN 51377
Viscosity, kinematic	:	75 mm2/s (40 °C) Method: ASTM D 445
		13,2 mm2/s (100 °C) Method: ASTM D 445
Flow time	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

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

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

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 : Acute toxicity estimate : > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2.000 mg/kg
Method: Calculation method

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

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity : LD50 Oral Rat: > 5.000 mg/kg
Method: CONCAWE

Acute inhalation toxicity : LC50 Rat: > 5,53 mg/l
Exposure time: 4 h
Method: CONCAWE

Acute dermal toxicity : LD50 Dermal Rat: > 2.000 mg/kg
Method: CONCAWE

distillates (petroleum), hydrotreated heavy paraffinic:

Acute oral toxicity : LD50 Oral Rat: > 5.000 mg/kg
Method: CONCAWE

Acute inhalation toxicity : LC50 Rat: > 5,53 mg/l
Exposure time: 4 h
Method: CONCAWE

Acute dermal toxicity : LD50 Dermal Rat: > 2.000 mg/kg
Method: CONCAWE

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

Acute dermal toxicity : LD50 Rat: > 2.000 mg/kg
Method: OECD Test Guideline 402
Based on available data, the classification criteria are not met.

Butyl hydroxytoluene:
Acute oral toxicity : LD50 Oral Rat: > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal Rat: > 5.000 mg/kg
Method: OECD Test Guideline 402

diphenylamine:
Acute oral toxicity : LD50 Rat: > 800 mg/kg
Method: No information available.

Acute dermal toxicity : LD50 Rabbit: > 2.000 mg/kg
Method: No information available.

Skin corrosion/irritation

Product:

slight irritation
Non persistent irritation

Components:

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

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts:
Result: Skin irritation
Classification: Causes skin irritation.

Based on available data, the classification criteria are not met.
Concentration limits
SCL
European Chemicals Agency - ECHA

diphenylamine:
Result: No skin irritation
Method: OECD Test Guideline 404
This information is not available.

Serious eye damage/eye irritation

Product:

Non persistent irritation

Components:

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

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts:
Result: Eye irritation
Classification: Causes serious eye irritation.
Based on available data, the classification criteria are not met.
Concentration limits
SCL
European Chemicals Agency - ECHA

diphenylamine:
Result: Mild eye irritation
Method: OECD Test Guideline 405
European Union Risk Assessment Report DIPHENYLAMINE 2008

Respiratory or skin sensitisation

Product:

No known sensitising effect.

Components:

bis(nonylphenyl)amine:
Test Method: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig

Result: negative
Method: OECD Test Guideline 406
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:

bis(nonylphenyl)amine:
Genotoxicity in vitro : Result: negative

Genotoxicity in vivo : Test species: Mouse
Result: negative

Butyl hydroxytoluene:
Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

diphenylamine:
Genotoxicity in vitro : No data available

Genotoxicity in vivo : Test Type: Transgenic rodent somatic cell gene mutation assay
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Product:

This information is not available.

Carcinogenicity - Assessment : No data available

Components:

bis(nonylphenyl)amine:

This information is not available.

diphenylamine:

Method: OECD Test Guideline 453
Result: negative

Reproductive toxicity

Product:

Effects on fertility	:	This information is not available.
Effects on foetal development	:	This information is not available.
Reproductive toxicity - Assessment	:	No data available

Components:

bis(nonylphenyl)amine:

Effects on fertility	:	This information is not available.

Butyl hydroxytoluene:

Reproductive toxicity - Assessment	:	No toxicity to reproduction

STOT - single exposure

Product:

No data available

Components:

bis(nonylphenyl)amine:
Based on available data, the classification criteria are not met.

diphenylamine:
Exposure routes: inhalation (vapour), inhalation (dust/mist/fume)
Assessment: May cause respiratory irritation.

STOT - repeated exposure

Product:

No data available

Components:

bis(nonylphenyl)amine:
Based on available data, the classification criteria are not met.

diphenylamine:
Exposure routes: Ingestion
Target Organs: Kidney, Liver

Exposure routes: Skin contact
Target Organs: Kidney, Liver

Exposure routes: Inhalation
Target Organs: Kidney, Liver

Repeated dose toxicity

Product:

This information is not available.

Repeated dose toxicity - Assessment : No data available

Components:

diphenylamine:
Repeated dose toxicity - Assessment : NOAEL: Dose 2 mg/kg /d

Aspiration toxicity

Product:

No data available

Components:
distillates (petroleum), hydrotreated heavy paraffinic:
May be fatal if swallowed and enters airways.

bis(nonylphenyl)amine:
No data available

Further information

Product:

No data available

Components:
diphenylamine:

Liver and kidney injuries may occur.

SECTION 12: Ecological information

12.1 Toxicity

Product:

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	:	Harmful to aquatic organisms., Harmful to aquatic life.
Chronic aquatic toxicity	:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment., Harmful to aquatic life with long lasting effects.
Toxicity Data on Soil	:	No data available
Other organisms relevant to the environment	:	No data available

Components:

distillates (petroleum), hydrotreated heavy paraffinic:

Toxicity to fish	:	LL50 (Fish): > 100 mg/l
Toxicity to algae	:	NOEL (algae): > 100 mg/l
Toxicity to fish (Chronic toxicity)	:	NOEL: 10 mg/l Species: Fish
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEL: 10 mg/l

bis(nonylphenyl)amine:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 4 d Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l

aquatic invertebrates		Exposure time: 2 d Test Type: static test Test substance: yes Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 100 mg/l Exposure time: 3 d Test Type: static test Method: OECD Test Guideline 201
Toxicity to bacteria	:	EC50 (activated sludge): > 1.000 mg/l Exposure time: 0,1 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	No data available

Butyl hydroxytoluene:

Toxicity to fish	:	LC0 (Danio rerio (zebra fish)): >= 0,57 mg/l Exposure time: 96 h Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,61 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae	:	IC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 0,4 mg/l Exposure time: 72 h Method: Directive 67/548/EEC, Annex V, C.3.
Toxicity to bacteria	:	EC50 (activated sludge): > 10.000 mg/l Exposure time: 3 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	0,316 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	:	1

diphenylamine:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 3,79 mg/l Exposure time: 4 d LC50 (Fish): 2,2 mg/l Exposure time: 2 d

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2 mg/l Exposure time: 48 h Test Type: Immobilization Method: European Chemicals Agency - ECHA
Toxicity to algae	:	EC50 : 2,17 mg/l Exposure time: 72 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	2 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: No data available

Phenol, dodecyl-, branched:

M-Factor (Acute aquatic toxicity)	:	1
M-Factor (Chronic aquatic toxicity)	:	10

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:

bis(nonylphenyl)amine:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Result: Not biodegradable Biodegradation: 1 % Exposure time: 28 d Method: OECD Test Guideline 301B

diphenylamine:

Biodegradability	:	Biodegradation: 26 % Exposure time: 28 d Method: OECD Test Guideline 301D

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	No data available

Partition coefficient: n-octanol/water : not determined

Components:

bis(nonylphenyl)amine:

Bioaccumulation : Bioconcentration factor (BCF): 1.584,89

Partition coefficient: n-octanol/water : log Pow: > 7,6

Butyl hydroxytoluene:

Partition coefficient: n-octanol/water : log Pow: 5,1

diphenylamine:

Partition coefficient: n-octanol/water : log Pow: 3,4

12.4 Mobility in soil

Product:

Mobility : Should not be released into the environment.

Components:

bis(nonylphenyl)amine:

Stability in soil : Adsorbs on 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.

Components:

bis(nonylphenyl)amine:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Additional ecological infor- : Should not be released into the environment.

mation | Do not let product enter drains.

Components:

bis(nonylphenyl)amine:

Additional ecological information : Should not be released into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : ÖNORM S 2100, key code group 54

Dispose of in accordance with local regulations.

13 02 08*

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

15 01 10*

SECTION 14: Transport information

14.1 UN number

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods
ADN : Not dangerous goods

14.2 Proper shipping name

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods
ADN : Not dangerous goods

14.3 Transport hazard class

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods
ADN : Not dangerous goods

14.4 Packing group

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods
ADN	:	Not dangerous goods
Special Provisions	:	Packed / Inland tanker

14.5 Environmental hazards

ADR	:	Not dangerous goods
RID	:	Not dangerous goods
IMDG	:	Not dangerous goods
IATA	:	Not dangerous goods
ADN	:	Not dangerous goods

14.6 Special precautions for user

Remarks : not required

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : This product is being carried under the scope of MARPOL Annex I

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 volatile organic compounds : not required under normal use

Fire Hazard Class : Exempt

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Not applicable

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 (Germany) : WGK 2 water endangering
436
Remarks: Classification according VwVwS, Annex 2.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H301	:	Toxic if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H311	:	Toxic in contact with skin.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H331	:	Toxic if inhaled.
H361	:	Suspected of damaging fertility or the unborn child.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H413	:	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Repr.	:	Reproductive toxicity
Skin Irrit.	:	Skin irritation
STOT RE	:	Specific target organ toxicity - repeated exposure

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 to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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