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

1.1 Product identifier

Product name : OKS 464

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

Use of the : Grease

Substance/Mixture

Recommended restrictions

on use

: Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : OKS Spezialschmierstoffe GmbH

Ganghoferstr. 47

82216 Maisach-Gernlinden

Deutschland

Tel.: +49 8142 3051 500 Fax: +49 8142 3051 599 info@oks-germany.com

E-mail address of person

responsible for the SDS

mcm@oks-germany.com

National contact

1.4 Emergency telephone number

Emergency telephone number

)

: +49 8142 3051 517

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Specific target organ toxicity - repeated exposure, Category 2, lymph node

H373: May cause damage to organs through

prolonged or repeated exposure.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



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Hazard pictograms :

Signal word : Warning

Hazard statements : H373 May cause damage to organs (lymph node)

through prolonged or repeated exposure.

Precautionary statements : Response:

P314 Get medical advice/ attention if you feel

unwell.

Hazardous components which must be listed on the label:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Synthetic hydrocarbon oil

lithium soap solid lubricant

Components

Chemical name	CAS-No.	Classification	specific	Concentration
	EC-No.		concentration	(% w/w)
			limit	
	Index-No.		M-Factor	
	Registration number		Notes	
			Acute toxicity	



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			estimate	
Amines, C11-14- branched alkyl,	80939-62-4 279-632-6	Skin Irrit.2; H315 Eye Irrit.2; H319		>= 1 - < 2,5
monohexyl and		STOT RE1; H372		
dihexyl phosphates	01-2119976322-36-	Aquatic Chronic2;		
	XXXX	H411		
Benzenamine, N-	68411-46-1	Repr.2; H361f		>= 0,25 - < 1
phenyl-, reaction	270-128-1	Aquatic Chronic3;		
products with 2,4,4-	04 2440404200 22	H412		
trimethylpentene	01-2119491299-23- XXXX			
	70000			
Substances with a world				
Dec-1-ene,	68037-01-4	Not classified		>= 70 - < 90
homopolymer,	500-183-1			
hydrogenated	01-2119486452-34-			
	XXXX			
Carbon black	1333-86-4	Not classified		>= 1 - < 10
	215-609-9			
	04 0440004000 00			
	01-2119384822-32- XXXX			
Graphite (synthetic)	7782-42-5	Not classified		>= 1 - < 10
	231-955-3			
	01-2119486977-12-			
	XXXX			

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : Obtain medical attention.

Remove person to fresh air. If signs/symptoms continue, get

medical attention.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

If breathing is irregular or stopped, administer artificial

respiration.

In case of skin contact : Take off all contaminated clothing immediately.



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Get medical attention immediately if irritation develops and

persists.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

Wash off immediately with plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 10 minutes.

Get medical attention immediately.

If swallowed : Move the victim to fresh air.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

Do not induce vomiting without medical advice.

Obtain medical attention.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No symptoms known or expected.

Risks : May cause damage to organs through prolonged or repeated

exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Unsuitable extinguishing

media

High volume water jet

High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion

products

Carbon oxides

Nitrogen oxides (NOx)

Oxides of phosphorus

Metal oxides



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5.3 Advice for firefighters

Special protective equipment :

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.

Ensure adequate ventilation. Do not breathe vapours, aerosols.

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water

courses.

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 : Pick up and transfer to properly labelled containers.

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 : Do not use in areas without adequate ventilation.

In case of insufficient ventilation, wear suitable respiratory

equipment.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Wash hands and face before breaks and immediately after

handling the product.

Do not get in eyes or mouth or on skin.

Do not get on skin or clothing.

Do not ingest. Do not repack.

These safety instructions also apply to empty packaging which



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may still contain product residues. Keep container closed when not in use.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after

handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

Storage class (TRGS 510) : 11, Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis	
		of exposure)			
Dec-1-ene,	68037-01-4	AGW (Alveolate	5 mg/m3	DE TRGS	
homopolymer,		fraction)		900	
hydrogenated				(2012-01-12)	
	Peak-limit: ex	cursion factor (categ	ory): 4;(II)		
	Further inform	nation: When there is	compliance with the OEL ar	nd biological	
	tolerance valu	ies, there is no risk o	of harming the unborn child		
		MAK (measured	5 mg/m3	DE DFG MAK	
		as the alveolate		(2023-07-01)	
		fraction)			
	Peak-limit: excursion factor (category): 4; II				
	Further information: Damage to the embryo or foetus is unlikely when the				
	MAK value or the BAT value is observed				
Carbon black	1333-86-4	BM (Alveolar	0,5 mg/m3	DE TRGS	
		dust fraction)		527	
				(2020-02-19)	
Graphite	7782-42-5	MAK (measured	0,3 mg/m3	DE DFG MAK	
(synthetic)		as the alveolate		(2023-07-01)	
		fraction)			
	Peak-limit: excursion factor (category): 8; II				
	Further information: Substances that cause cancer in humans or animals or				
	that are considered to be carcinogenic for humans and for which a MAK value				



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	can be derived., Damage to the embryo or foetus is unlikely when the MAK				
value	value or the BAT value is observed				
		MAK (inhalable	4 mg/m3	DE DFG MAK	
	,	fraction)		(2023-07-01)	
Peal	Peak-limit: excursion factor (category): 8; II				
Furti	Further information: Substances that cause cancer in humans or animals or				
	that are considered to be carcinogenic for humans and for which a MAK value				
			mbryo or foetus is unlikely wh	en the MAK	
value	e or the BA	AT value is observe	d		
		AGW (Inhalable	10 mg/m3	DE TRGS	
		fraction)		900	
				(2014-04-02)	
Peal	Peak-limit: excursion factor (category): 2;(II)				
Furti	Further information: When there is compliance with the OEL and biological				
toler	tolerance values, there is no risk of harming the unborn child				
		AGW (Alveolate	1,25 mg/m3	DE TRGS	
		fraction)		900	
				(2014-04-02)	
Peal	Peak-limit: excursion factor (category): 2;(II)				
Furti	Further information: When there is compliance with the OEL and biological				
toler	tolerance values, there is no risk of harming the unborn child				
		BM (Alveolar	0,5 mg/m3	DE TRGS	
	1	dust fraction)		527	
				(2020-02-19)	

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Carbon black	Workers	Inhalation	Long-term local effects	0,5 mg/m3
Graphite (synthetic)	Workers	Inhalation	Long-term systemic effects	1,2 mg/m3
Amines, C11-14- branched alkyl, monohexyl and dihexyl phosphates	Workers	Inhalation	Long-term systemic effects	0,2 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,03 mg/kg
	Workers	Skin contact	Acute systemic effects	0,03 mg/kg
1,3,4-Thiadiazolidine- 2,5-dithione, reaction products with hydrogen peroxide and tert- dodecanethiol	Workers	Inhalation		4,408 mg/m3
	Workers	Dermal		6,25 mg/kg bw/day
Benzenamine, N- phenyl-, reaction	Workers	Skin contact	Long-term systemic effects	0,44 mg/kg bw/day



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products with 2,4,4- trimethylpentene				
	Workers	Inhalation	Long-term systemic effects	0,31 mg/m3

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

Substance name	Environmental Compartment	Value
Carbon black	Fresh water	5 mg/l
	Marine water	5 mg/l
Amines, C11-14-branched alkyl,	Fresh water	0,055 mg/l
monohexyl and dihexyl		
phosphates		
	Intermittent use/release	0,01 mg/l
	Marine water	0,005 mg/l
	Sewage treatment plant	1 mg/l
	Fresh water sediment	239,64 mg/kg
	Marine sediment	23,96 mg/kg
	Soil	47,76 mg/kg
1,3,4-Thiadiazolidine-2,5-	Fresh water	0,041 mg/l
dithione, reaction products with		
hydrogen peroxide and tert-		
dodecanethiol		
	Marine water	0,0041 mg/l
	Fresh water sediment	380,62 mg/kg
	Marine sediment	38,06 mg/kg
	Sewage treatment plant	8000 mg/l
	Soil	308,98 mg/kg
Benzenamine, N-phenyl-, reaction products with 2,4,4-	Fresh water	0,034 mg/l
trimethylpentene		
thinetry perione	Marine water	0,003 mg/l
	Microbiological Activity in Sewage	10 mg/l
	Treatment Systems	10 1119/1
	Fresh water sediment	0,446 mg/kg
	Marine sediment	0,045 mg/kg
	Soil	1,76 mg/kg

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye/face protection : Safety glasses

Hand protection

Material : Nitrile rubber
Break through time : > 10 min
Protective index : Class 1



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Remarks : Wear protective gloves. The break through time depends

amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each

case.

The selected protective gloves have to satisfy the

specifications of Regulation (EU) 2016/425 and the standard

EN 374 derived from it.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

Environmental exposure controls

Air

No special environmental precautions required.

Soil :

The product should not be allowed to enter drains, water

courses or the soil.

Water

The product should not be allowed to enter drains, water

courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : paste

Colour : black

Odour : characteristic

Odour Threshold : No data available



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Melting point/ range : No data available

Boiling point/boiling range : No data available

Flammability (solid, gas) : Combustible Solids

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable

substance/mixture is non-soluble (in water)

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Vapour pressure : ca. < 0,013 hPa (20 °C)

Relative density : 0,89 (20 °C)

Reference substance: Water The value is calculated

Density : 0,89 g/cm3

(20 °C)

Bulk density : No data available

Relative vapour density : No data available

Particle characteristics

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Particle size : Not applicable

Particle Size Distribution : Not applicable

9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : No data available

Evaporation rate : No data available

Sublimation point : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity : Remarks: This information is not available.

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Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

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

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Dec-1-ene, homopolymer, hydrogenated:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 5,2 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

Carbon black:

Acute oral toxicity : LD50 (Rat): > 8.000 mg/kg

Method: OECD Test Guideline 401

Graphite (synthetic):

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 423

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Assessment: The substance or mixture has no acute oral

toxicity

Acute inhalation toxicity : LC50 (Rat): > 2.000 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute

inhalation toxicity

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Species : Rabbit

Assessment : Irritating to skin.

Method : OECD Test Guideline 404

Result : Irritating to skin.

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

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

Dec-1-ene, homopolymer, hydrogenated:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

Carbon black:

Species : Rabbit Exposure time : 24 h

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

Graphite (synthetic):

Species : Rabbit

Assessment : No skin irritation

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Method : OECD Test Guideline 404

Result : No skin irritation

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Species : Rabbit

Assessment : Irritating to eyes.

Method : OECD Test Guideline 405

Result : Irritating to eyes.

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

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

Dec-1-ene, homopolymer, hydrogenated:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

Carbon black:

Species : Rabbit Exposure time : 24 h

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

Graphite (synthetic):

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

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Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Product:

Remarks : This information is not available.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals. Result : Did not cause sensitisation on laboratory animals.

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

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

Dec-1-ene, homopolymer, hydrogenated:

Test Type : Maximisation Test

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Method : OECD Test Guideline 406

Result : Did not cause sensitisation on laboratory animals.

GLP : yes

Carbon black:

Test Type : Buehler Test Species : Guinea pig

Assessment : Does not cause skin sensitisation.

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Graphite (synthetic):

Species : Mouse

Method : OECD Test Guideline 429

Result : negative

Germ cell mutagenicity

Based on available data, the classification criteria are not met.



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Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Test system: Rodent cell line

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Dec-1-ene, homopolymer, hydrogenated:

Germ cell mutagenicity-

Assessment

Animal testing did not show any mutagenic effects.

Carbon black:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Result: negative

Genotoxicity in vivo : Species: Rat

Application Route: Inhalation

Result: Positive results were obtained in some in vivo tests.

Germ cell mutagenicity-

Assessment

Animal testing did not show any mutagenic effects.

Graphite (synthetic):

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)

Method: OECD Test Guideline 471

Result: negative

Test Type: gene mutation test Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

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Carcinogenicity

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

Dec-1-ene, homopolymer, hydrogenated:

Carcinogenicity - : Not classifiable as a human carcinogen.

Assessment

Carbon black:

Carcinogenicity - : Not classifiable as a human carcinogen., Carcinogenicity

Assessment classification not possible from current data.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product:

Effects on fertility : Remarks: No data available

Effects on foetal : Remarks: No data available

development

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Effects on foetal : Species: Rat

development Application Route: Oral

Method: OECD Test Guideline 422

Result: No effects on fertility and early embryonic

development were detected.

Reproductive toxicity - : - Fertility -

Assessment No toxicity to reproduction

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

Reproductive toxicity - : - Fertility -

Assessment Some evidence of adverse effects on sexual function and

fertility, based on animal experiments.

Dec-1-ene, homopolymer, hydrogenated:

Effects on fertility : Species: Rat

Application Route: Oral

Dose: 1000 milligram per kilogram

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Fertility: NOAEL Parent: 1.000 mg/kg body weight

Method: OECD Test Guideline 415

Reproductive toxicity -

Assessment

: - Fertility -

No toxicity to reproduction

Carbon black:

Reproductive toxicity -

Assessment

: - Fertility -

Animal testing did not show any effects on fertility.

- Teratogenicity -

Animal testing did not show any effects on foetal

development.

Graphite (synthetic):

Effects on fertility : Species: Rat

Application Route: Oral

General Toxicity F1: NOAEL: 813 mg/kg body weight

Method: OECD Test Guideline 422

STOT - single exposure

Based on available data, the classification criteria are not met.

Product:

Remarks : No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

Carbon black:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure

May cause damage to organs (lymph node) through prolonged or repeated exposure.

Product:

Remarks : No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Target Organs : lymph node

a brand of
FREUDENBERG

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The substance or mixture is classified as specific target organ Assessment

toxicant, repeated exposure, category 1.

Carbon black:

Exposure routes Inhalation **Target Organs** Lungs

Assessment The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks This information is not available.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Species Rat LOAEL 10 mg/kg **Application Route** Oral

Method **OECD Test Guideline 422**

Carbon black:

Species Rat **NOAEL** 0,001 mg/l Application Route Inhalation Test atmosphere dust/mist Exposure time 90 d **Target Organs** Lungs

Graphite (synthetic):

Species Rat NOAEL 813 mg/kg **Application Route** Oral

Method **OECD Test Guideline 422**

Species Rat NOAEL > 2 mg/l

Application Route inhalation (dust/mist/fume) Method **OECD Test Guideline 412**

Aspiration toxicity

Based on available data, the classification criteria are not met.

Product:

This information is not available.



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Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

No aspiration toxicity classification

Dec-1-ene, homopolymer, hydrogenated:

No aspiration toxicity classification

Carbon black:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

Remarks : Information given is based on data on the components and

the toxicology of similar products.

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Remarks : Ingestion causes irritation of upper respiratory system and

gastrointestinal disturbance.

Carbon black:

Remarks : Information given is based on data on the components and

the toxicology of similar products.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available



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Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms

Remarks: No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,5 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1,2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Selenastrum capricornutum (green algae)): > 10 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

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

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 51 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Dec-1-ene, homopolymer, hydrogenated:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l

Exposure time: 96 h Test Type: semi-static test

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Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/aquatic

plants

EL50 (Selenastrum capricornutum (green algae)): > 1.000

mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

NOELR: 125 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

GLP: yes

Carbon black:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 1.000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 5.600 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Scenedesmus capricornutum (fresh water algae)):

10.000 mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Bacteria): > 800 mg/l

Exposure time: 3 h

Graphite (synthetic):

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

(Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

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Exposure time: 72 h

Method: OECD Test Guideline 201

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical

removability

Remarks: No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

Biodegradability : Result: Not rapidly biodegradable

Biodegradation: 12 %

Method: OECD Test Guideline 301B

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

Biodegradability : Test Type: aerobic

Inoculum: activated sludge Result: Not rapidly biodegradable

Biodegradation: 1 % Exposure time: 28 d

Method: OECD Test Guideline 301B

GLP: yes

Dec-1-ene, homopolymer, hydrogenated:

Biodegradability : Result: Not readily biodegradable.

Carbon black:

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

Graphite (synthetic):

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates:

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Partition coefficient: n-

octanol/water

: log Pow: 1,74 - 11,61

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

Partition coefficient: n-

octanol/water

: log Pow: 5,2 - 10,82

Dec-1-ene, homopolymer, hydrogenated:

Partition coefficient: n- :

octanol/water

: log Pow: 4,82 - 6,5

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among : Remarks: No data available

environmental compartments

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:

Dec-1-ene, homopolymer, hydrogenated:

Assessment : Non-classified PBT substance. Non-classified vPvB substance

Carbon black:

Assessment : Substance is not persistent, bioaccumulative, and toxic

(PBT).. Substance is not very persistent and very

bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.



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12.7 Other adverse effects

Product:

Additional ecological

information

: No information on ecology is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not dispose of with domestic refuse.

Dispose of as hazardous waste in compliance with local and

national regulations.

Waste codes should be assigned by the user based on the

application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as

the unused product.

Dispose of waste product or used containers according to

local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product

12 01 12*, spent waxes and fats

uncleaned packagings

15 01 10*, packaging containing residues of or contaminated

by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name



according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - DE



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ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) Not applicable



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REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

(EU SVHC)

This product does not contain substances of very high concern

(Regulation (EC) No

1907/2006 (REACH), Article 57).

Regulation (EU) No 2024/590 on substances that

deplete the ozone layer

(EC 2024/590)

Not applicable

Regulation (EU) 2019/1021 on persistent organic

pollutants (recast)

(EU POP)

: Not applicable

Regulation (EU) No 649/2012 of the European

Parliament and the Council concerning the export and

import of dangerous chemicals

(EU PIC)

Not applicable

REACH - List of substances subject to authorisation

(Annex XIV)

(EU. REACH-Annex XIV)

: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of : Not applicable

explosives precursors

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 hazard class

(Germany)

WGK 1 slightly hazardous to water

Classification according to AwSV, Annex 1 (5.2)

5.2.1: Total dust: TA Luft List (Germany)

others: 14,2 %

5.2.2: Inorganic substances in powdered form:

Not applicable

5.2.4: Inorganic substances in gaseous form:

Not applicable

5.2.5: Organic Substances:

Class 1: 84,41 %

5.2.7.1.1: Carcinogenic substance:

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878 - DE



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Not applicable

5.2.7.1.1: Quartz fine dust PM4:

Not applicable

5.2.7.1.1: Formaldehyde:

Not applicable 5.2.7.1.1: fibres: Not applicable

5.2.7.1.2: Germ cell mutagens:

Not applicable

5.2.7.1.3: Substances toxic to reproduction:

Not applicable

5.2.7.2: Poorly degradable, easily enrichable and highly toxic

organic substances: Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial and

livestock rearing emissions (integrated pollution prevention

and control) Not applicable

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H315 : Causes skin irritation.

H319 : Causes serious eye irritation. H361f : Suspected of damaging fertility.

H372 : Causes damage to organs through prolonged or repeated

exposure.

H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

DE DFG MAK : Germany. MAK BAT Annex IIa



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DE TRGS 527 : Germany. TRGS 527 - Activities with nanomaterials

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

DE DFG MAK / MAK : MAK value

DE TRGS 527 / BM : Assessment scale
DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; TECI - Thailand Existing Chemicals 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

Classification of the mixture:

Classification procedure:

STOT RE 2 H373 Calculation method

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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