

**Safety Data Sheet**

according to UK REACH Regulation

Wax Graphene

Revision date: 28.02.2024

Product code: ZV-WG000100

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Wax Graphene

UFI: 3710-80F2-R005-3NVU

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**Polishes and wax blends, Waterproofing agent
Automotive care products**1.3. Details of the supplier of the safety data sheet**

Company name:	ZviZZer International GmbH	
Street:	Grube Weiß 26	
Place:	D-51429 Bergisch Gladbach	
Telephone:	+49 177 3016109	
E-mail:	info@zvizzer.com	
Contact person:	Detlef Finken	Telephone: +49 177 3016109
E-mail:	info@zvizzer.com	
Internet:	www.zvizzer.com	
Responsible Department:	Giftinformationszentrale Mainz	

1.4. Emergency telephone number:German & English 24h: +49 6131 19240
Russian 24h: +74953634008**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements**2.3. Other hazards**

Vapours can form explosive mixtures with air.

The mixture contains the following substances fulfilling the PBT-/vPvB criteria according to REACH Annex XIII:

Decamethylcyclopentasiloxane, Dodecamethylcyclohexasiloxane

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

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Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics			55 - < 60 %
	918-481-9		01-2119457273-39	
	Asp. Tox. 1; H304 EUH066			
	Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics			15 - < 20 %
	918-167-1		01-2119472146-39	
	Flam. Liq. 3, Asp. Tox. 1, Aquatic Chronic 4; H226 H304 H413 EUH066			
541-02-6	Decamethylcyclopentasiloxane			5 - < 10 %
	208-764-9		01-2119511367-43	
131459-42-2	Alkenes, C24-54-branched and linear a-			1 - < 5 %
	603-486-8			
	Aquatic Chronic 4; H413			
540-97-6	Dodecamethylcyclohexasiloxane			< 1 %
	208-762-8		01-2119517435-42	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	918-481-9	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	55 - < 60 %
		inhalation: LC50 = 6100 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
	918-167-1	Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics	15 - < 20 %
		inhalation: LC50 = 9,3 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 15000 mg/kg	
541-02-6	208-764-9	Decamethylcyclopentasiloxane	5 - < 10 %
		inhalation: LC50 = 8,67 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
131459-42-2	603-486-8	Alkenes, C24-54-branched and linear a-	1 - < 5 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical advice/attention.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

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After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink 1 glass of water. Never give anything by mouth to an unconscious person or a person with cramps.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Gases/vapours, toxic
Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove persons to safety. Evacuate area.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

No special measures are necessary.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink,

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smoke, sniff. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

storage temperature: 10 - 25 °C

Maximum storage period (time): 12 month(s) (at room temperature)

Protect from direct sunlight. Protect against: Frost.

7.3. Specific end use(s)

Polishes and wax blends, Waterproofing agent

Automotive care products

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
541-02-6	Decamethylcyclopentasiloxane			
Worker DNEL, acute		inhalation	systemic	97,3 mg/m³
Worker DNEL, acute		inhalation	local	24,2 mg/m³
Worker DNEL, long-term		inhalation	systemic	97,3 mg/m³
Worker DNEL, long-term		inhalation	local	24,2 mg/m³
Consumer DNEL, acute		inhalation	systemic	17,3 mg/m³
Consumer DNEL, acute		inhalation	local	4,3 mg/m³
Consumer DNEL, acute		dermal	systemic	5 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	5 mg/kg bw/day
540-97-6	Dodecamethylcyclohexasiloxane			
Worker DNEL, acute		inhalation	local	6,1 mg/m³
Worker DNEL, long-term		inhalation	systemic	11 mg/m³
Worker DNEL, long-term		inhalation	local	1,22 mg/m³
Consumer DNEL, acute		oral	systemic	1,7 mg/kg bw/day
Consumer DNEL, acute		inhalation	local	1,5 mg/m³
Consumer DNEL, long-term		inhalation	systemic	2,7 mg/m³
Consumer DNEL, long-term		oral	systemic	1,7 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	0,3 mg/m³

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PNEC values

CAS No	Substance	
	Environmental compartment	Value
541-02-6	Decamethylcyclopentasiloxane	
	Freshwater	0,0012 mg/l
	Marine water	0,00012 mg/l
	Freshwater sediment	2,39 mg/kg
	Marine sediment	0,239 mg/kg
	Micro-organisms in sewage treatment plants (STP)	> 10 mg/l
	Soil	3,34 mg/kg
540-97-6	Dodecamethylcyclohexasiloxane	
	Freshwater sediment	2,826 mg/kg
	Marine sediment	0,282 mg/kg
	Micro-organisms in sewage treatment plants (STP)	> 1 mg/l
	Soil	3,336 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection. (EN 166)

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves. (EN ISO 374)

Skin protection

Use of protective clothing. Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Paste	
Colour:	light grey	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		186 °C
Flammability:		not applicable
Lower explosion limits:		not determined

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Upper explosion limits:	not determined
Flash point:	> 61 °C
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	not determined
pH-Value:	not applicable
Viscosity / kinematic: (at 40 °C)	>20,5 mm²/s
Water solubility:	practically insoluble
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	0,87 g/cm³
Relative vapour density:	not determined

9.2. Other information**Information with regard to physical hazard classes****Explosive properties**

The product is not: Explosive.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

The product is not: oxidising.

Other safety characteristics**Evaporation rate:**

not determined

Solid content:

not determined

Viscosity / dynamic:

not determined

Further Information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Protect from direct sunlight. Protect against: Frost.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In case of fire may be liberated: Gases/vapours, toxic

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

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ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 > 2000 mg/kg	Rat	Manufacturer	OECD 402
	inhalation (4 h) dust/mist	LC50 6100 mg/l	Rat	Manufacturer	
	Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics				
	oral	LD50 > 15000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 5000 mg/kg	Rabbit	Manufacturer	
	inhalation (4 h) dust/mist	LC50 9,3 mg/l	Rat	Manufacturer	
541-02-6	Decamethylcyclopentasiloxane				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Manufacturer	OECD 402
	inhalation (4 h) dust/mist	LC50 8,67 mg/l	Rat	Manufacturer	OECD 403
131459-42-2	Alkenes, C24-54-branched and linear a-				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 5000 mg/kg	Rat	Manufacturer	

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

11.2. Information on other hazards

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Other information

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics					
	Acute fish toxicity	LC50 mg/l	> 1000	96 h	Oncorhynchus mykiss (Rainbow trout)	Manufacturer OECD 203
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Pseudokirchneriella subcapitata	Manufacturer OECD 201
	Acute crustacea toxicity	EC50 mg/l	> 1000	48 h	Daphnia magna (Big water flea)	Manufacturer OECD 202
541-02-6	Decamethylcyclopentasiloxane					
	Acute bacteria toxicity	EC50 mg/l ()	> 2000	3 h	Activated sludge	Manufacturer

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics			
	OECD 301F	80%	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	5,5 - 7,2
541-02-6	Decamethylcyclopentasiloxane	8,023

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The mixture contains the following substances fulfilling the PBT-/vPvB criteria according to REACH Annex XIII:

Decamethylcyclopentasiloxane, Dodecamethylcyclohexasiloxane

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

No information available.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

Decamethylcyclopentasiloxane; Dodecamethylcyclohexasiloxane

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 70

Directive 2010/75/EU on industrial emissions:

78,292 % (681,14 g/l)

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Directive 2004/42/EC on VOC in
paints and varnishes:
Information according to Directive
2012/18/EU (SEVESO III):

19,148 % (166,589 g/l)

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D):

3 - highly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Abbreviations and acronyms**

Flam. Liq: Flammable liquids
Asp. Tox: Aspiration hazard
Aquatic Chronic: Chronic aquatic hazard
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization

Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H413 May cause long lasting harmful effects to aquatic life.



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EUH066

Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)