

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Graphene Shampoo

Revision: 2025-01-17

SECTION 1: Identification

1.1 Product identifier

Trade name **Graphene Shampoo**

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

Relevant identified uses Vehicle wash / shampoo

1.3 Details of the supplier of the safety data sheet

Tonyin Industrial Co., Ltd

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1.4

Emergency telephone number

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SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS05



- Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

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- Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P362	Take off contaminated clothing and wash it before reuse.

- Hazardous ingredients for labelling

sodium laureth sulfate, amines, coco alkyldimethyl, N-oxides, D-Glucopyranose, oligomers, decyl octyl glycosides, lauryl glucoside

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS			
Name of substance	Identifier	Wt%	Classification acc. to GHS
sodium laureth sulfate	CAS No 68585-34-2	12 – < 20	Acute Tox. 4 / H312 Skin Irrit. 2 / H315 Eye Dam. 1 / H318
amines, coco alkyldimethyl, N-oxides	CAS No 61788-90-7	1 – < 3	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318
cocamidopropylhydroxysultaine	CAS No 68139-30-0	1 – < 3	Eye Irrit. 2A / H319
lauryl glucoside	CAS No 110615-47-9	1 – < 3	Skin Irrit. 2 / H315 Eye Dam. 1 / H318
D-Glucopyranose, oligomers, decyl octyl glycosides	CAS No 68515-73-1	1 – < 3	Eye Dam. 1 / H318

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

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Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

none

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as

frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
sodium laureth sulfate	68585-34-2	DNEL	175 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
sodium laureth sulfate	68585-34-2	DNEL	2,750 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
sodium laureth sulfate	68585-34-2	DNEL	132 µg/cm ²	human, dermal	worker (industry)	chronic - local effects
amines, coco alkyl dimethyl, N-oxides	61788-90-7	DNEL	6.2 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
amines, coco alkyl dimethyl, N-oxides	61788-90-7	DNEL	11 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	DNEL	420 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	DNEL	595,000 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
lauryl glucoside	110615-47-9	DNEL	420 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects

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Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
lauryl glucoside	110615-47-9	DNEL	595,000 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
sodium laureth sulfate	68585-34-2	PNEC	0.24 mg/l	aquatic organisms	freshwater	short-term (single instance)
sodium laureth sulfate	68585-34-2	PNEC	0.024 mg/l	aquatic organisms	marine water	short-term (single instance)
sodium laureth sulfate	68585-34-2	PNEC	10 g/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sodium laureth sulfate	68585-34-2	PNEC	0.92 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
sodium laureth sulfate	68585-34-2	PNEC	0.092 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
sodium laureth sulfate	68585-34-2	PNEC	7.5 mg/kg	terrestrial organisms	soil	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	0.034 mg/l	aquatic organisms	freshwater	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	0.003 mg/l	aquatic organisms	marine water	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	0.034 mg/l	aquatic organisms	water	intermittent release
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	24 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	5.2 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	0.52 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
amines, coco alkyl dimethyl, N-oxides	61788-90-7	PNEC	1 mg/kg	terrestrial organisms	soil	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	560 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	1.5 mg/kg	benthic organisms	sediment	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	111 mg/kg	(top) predators	water	short-term (single instance)

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Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.27 mg/l	aquatic organisms	water	intermittent release
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.15 mg/kg	pelagic organisms	sediment	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.18 mg/l	aquatic organisms	freshwater	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.018 mg/l	aquatic organisms	marine water	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	560 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	1.5 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.15 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	PNEC	0.65 mg/kg	terrestrial organisms	soil	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	5,000 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	1.5 mg/kg	benthic organisms	sediment	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	0.065 mg/kg	pelagic organisms	sediment	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	111 mg/kg	(top) predators	water	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	0.03 mg/l	aquatic organisms	water	intermittent release
lauryl glucoside	110615-47-9	PNEC	0.18 mg/l	aquatic organisms	freshwater	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	0.018 mg/l	aquatic organisms	marine water	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	5,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	1.5 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	0.065 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
lauryl glucoside	110615-47-9	PNEC	0.65 mg/kg	terrestrial organisms	soil	short-term (single instance)

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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	Gris
Particle	not relevant (liquid)
Odor	citrus

Other safety parameters

pH (value)	8 – 9 (25 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	100 °C
Flash point	>100 °C at 101 kPa
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	32 hPa at 25 °C
Density	1 – 1 g/cm ³ at 25 °C

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Vapor density	this information is not available
Solubility(ies)	
- Water solubility	miscible in any proportion
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none
	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

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Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
sodium laureth sulfate	68585-34-2	dermal	$\geq 2,000$ mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
sodium laureth sulfate	68585-34-2	LC50	7.1 mg/l	fish	96 h
sodium laureth sulfate	68585-34-2	EC50	7.2 mg/l	aquatic invertebrates	48 h
sodium laureth sulfate	68585-34-2	ErC50	27 mg/l	algae	72 h
amines, coco al- kyldimethyl, N-oxides	61788-90-7	LC50	134 mg/l	fish	96 h
amines, coco al- kyldimethyl, N-oxides	61788-90-7	EC50	3.9 mg/l	aquatic invertebrates	48 h
amines, coco al- kyldimethyl, N-oxides	61788-90-7	ErC50	0.86 mg/l	algae	72 h

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Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
cocamidopropylhydroxysultaine	68139-30-0	LC50	1.7 – 2 mg/l	algae	72 h
cocamidopropylhydroxysultaine	68139-30-0	LC50	1.7 – 2 mg/l	daphnia	48 h
cocamidopropylhydroxysultaine	68139-30-0	LC50	1.7 – 2 mg/l	fish	96 h
cocamidopropylhydroxysultaine	68139-30-0	EC50	11 mg/l	aquatic invertebrates	48 h
cocamidopropylhydroxysultaine	68139-30-0	ErC50	0.32 mg/l	algae	72 h
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	LC50	101 mg/l	fish	96 h
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	EC50	>100 mg/l	aquatic invertebrates	48 h
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	ErC50	27 mg/l	algae	72 h
lauryl glucoside	110615-47-9	LC50	3 mg/l	fish	96 h
lauryl glucoside	110615-47-9	EC50	7 mg/l	aquatic invertebrates	48 h
lauryl glucoside	110615-47-9	ErC50	12 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
sodium laureth sulfate	68585-34-2	EC50	0.37 mg/l	aquatic invertebrates	21 d
sodium laureth sulfate	68585-34-2	LC50	0.74 mg/l	aquatic invertebrates	21 d
amines, coco alkyl dimethyl, N-oxides	61788-90-7	LC50	0.87 mg/l	fish	120 d
amines, coco alkyl dimethyl, N-oxides	61788-90-7	EC50	0.88 mg/l	aquatic invertebrates	21 d
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	LC50	3.2 mg/l	fish	28 d
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	EC50	>560 mg/l	microorganisms	6 h
lauryl glucoside	110615-47-9	LC50	3.2 mg/l	fish	28 d

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12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

The substance fulfills the very bioaccumulative criterion.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name

DOT	Environmentally hazardous substance, liquid, n.o.s.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
Technical name (hazardous ingredients)	amines, coco alkyldimethyl, N-oxides, cocamidopropylhydroxysultaine

14.3 Transport hazard class(es)

DOT	9
IMDG-Code	9
ICAO-TI	9

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14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	amines, coco alkyltrimethyl, N-oxides, cocamidopropylhydroxysultaine

14.6 Special precautions for user

There is no additional information.



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

The cargo is not intended to be carried in bulk.



Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not regulated under DOT until packaged in single containers larger than 119 gallons each - liquid, or 882 lbs each - solid.

Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., (contains: amines, coco alkyltrimethyl, N-oxides, cocamidopropylhydroxysultaine), 9, III
Reportable quantity (RQ)	22,024,161 lbs (9,998,969 kg) (1,4-dioxane) (ethylene oxide)
Danger label(s)	9, fish and tree
	
	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	8, 146, 173, 335, IB3, T4, TP1, TP29
ERG No	171

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (amines, coco alkyltrimethyl, N-oxides)
Danger label(s)	9, fish and tree
	
	
Special provisions (SP)	274, 335, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-F
Stowage category	A

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)

Danger label(s) 9, fish and tree



Special provisions (SP) A97, A158, A197

Excepted quantities (EQ) E1

Limited quantities (LQ) 30 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed

Right to Know Hazardous Substance List

Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
water	7732-18-5	solvent	
sodium laureth sulfate	68585-34-2	surfactant	
amines, coco alkyldimethyl, N-oxides	61788-90-7	surfactant	
cocamidopropylhydroxysultaine	68139-30-0	surfactant	
lauryl glucoside	110615-47-9	surfactant	
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1	surfactant	
Poly(ethylene glycol-ran-propylene glycol) monobutyl ether	9038-95-3	surfactant	
sodium chloride	7647-14-5	viscosity modifier	
polyethylene oxide lauryl ether	9002-92-0	surfactant	
Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	trade secret	refractory resin	
Alkyl Polysilicates	Trade Secret	resin	
alcohols, C12-14 secondary, ethoxylated	84133-50-6	surfactant	
Graphene	7782-42-5	surface modifier	
Lime oil	68917-71-5	fragrance	
linalool	78-70-6	fragrance	EU Fragrance Allergens
Lemon oil	8008-56-8	fragrance	
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	25322-68-3	surfactant	

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Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
octamethylcyclotetrasiloxane	556-67-2	solvents	Canada PBiTs CECBP - Priority Chemicals EC PBTs

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Wt%	Remarks	Type of the toxicity
methanol	67-56-1	0.00074		developmental
carbon black	1333-86-4	0.0008	airborne, unbound particles of respirable size	cancer
ethylene oxide	75-21-8	0.000045		cancer
ethylene oxide	75-21-8	0.000045		female
ethylene oxide	75-21-8	0.000045		developmental, male
1,4-dioxane	123-91-1	0.00045		cancer

VOC content

- Regulated Volatile Organic Compounds (VOC-EPA) 1.6 %
- Regulated Volatile Organic Compounds (VOC-Cal ARB) 0.085 %

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

Chronic: chronic hazard
Flammability: flammability hazards
Health: health hazard
Personal protection: personal protective equipment (PPE) for normal use
Physical hazard: reactivity

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NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
EU	REACH Reg.	not all ingredients are listed
CA	DSL	not all ingredients are listed
US	TSCA	all ingredients are listed

Legend

DSL Domestic Substances List (DSL)
REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

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

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Alignment to regulation: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").
Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.1	Trade name: Graphene Shampoo	Trade name: Graphene Shampoo	yes
1.2		HS code: 3402.11.00	yes
8.1		Relevant DNELs of components of the mixture: change in the listing (table)	yes
8.1		Relevant PNECs of components of the mixture: change in the listing (table)	yes
15.1		Cleaning Product Right to Know Act Substance List (CA-RTK): change in the listing (table)	yes
16		Abbreviations and acronyms: change in the listing (table)	yes

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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal ARB	California Air Resources Board
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)

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Abbr.	Descriptions of used abbreviations
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.