Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Adam's Graphene Ceramic Spray Coating - UV Reactive

Version number: GHS 6.0
Replaces version of: 2022-09-29 (GHS 5)

Revision: 2023-04-10

SECTION 1: Identification

1.1 Product identifier

Trade name: **Adam's Graphene Ceramic Spray Coating - UV Reactive**

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

Relevant identified uses: Vehicle coating
Professional use
Industrial use

HS code: 3208.90.00.

1.3 Details of the supplier of the safety data sheet

Adam's Polishes Inc.
8225 North Valley Hwy.
Thornton CO 80221
720-484-5059

tips@adamspolishes.com
www.adamspolishes.com

1.4 Emergency telephone number

Emergency information service: USA 1.800.535.5053, INTL 1.352.323.3500
24 hour emergency number

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.4S	skin sensitization	1	Skin Sens. 1	H317
A.6	carcinogenicity	2	Carc. 2	H351
A.10	aspiration hazard	1	Asp. Tox. 1	H304
B.6	flammable liquid	3	Flam. Liq. 3	H226

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources. The mixture contains a substance that was identified as a PBT (persistent, bioaccumulative and toxic). The mixture contains a substance that was identified as vPvB (very persistent and very bioaccumulative).

Additional information

Contains a PBT-/vPvB-substance in a concentration of ≥ 0.1%.

2.2 Label elements

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

- Signal word: danger

- Pictograms

GHS02, GHS07, GHS08

- Hazard statements

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

- Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308+P313	If exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P331	Do NOT induce vomiting.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling

parachlorobenzotrifluoride, distillates (petroleum) hydrotreated, light, orange oil, pine oil

2.3 Other hazards

Results of PBT and vPvB assessment

Contains a PBT-substance in a concentration of ≥ 0.1%. Contains a vPvB-substance in a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

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
decamethylcyclopentasiloxane	CAS No 541-02-6	< 100	Flam. Liq. 4 / H227
distillates (petroleum) hydrotreated, light	CAS No 64742-47-8	≥ 10	Asp. Tox. 1 / H304
parachlorobenzotrifluoride	CAS No 98-56-6	≥ 3	Skin Sens. 1B / H317 Carc. 2 / H351 Flam. Liq. 3 / H226
orange oil	CAS No 8028-48-6 68647-72-3	≥ 0.11	Skin Irrit. 2 / H315 Skin Sens. 1 / H317 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226
Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	CAS No 2649792-57-2	2 - < 5	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Flam. Liq. 2 / H225

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. Provide fresh air.

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, BC-powder, Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

none In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

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.

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. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

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

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- 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

Occupational exposure limit values (Workplace Exposure Limits)
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
decamethylcyclopentasiloxane	541-02-6	DNEL	97 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects

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
decamethylcyclo-pentasiloxane	541-02-6	DNEL	24 mg/m³	human, inhalatory	worker (industry)	acute - local effects
decamethylcyclo-pentasiloxane	541-02-6	DNEL	97 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
decamethylcyclo-pentasiloxane	541-02-6	DNEL	24 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
parachlorobenzotrifluoride	98-56-6	DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
parachlorobenzotrifluoride	98-56-6	DNEL	0.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
parachlorobenzotrifluoride	98-56-6	DNEL	18 µg/cm²	human, dermal	worker (industry)	acute - local effects
orange oil	8028-48-6 68647-72-3	DNEL	31 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
orange oil	8028-48-6 68647-72-3	DNEL	8.9 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
orange oil	8028-48-6 68647-72-3	DNEL	186 µg/cm²	human, dermal	worker (industry)	acute - local effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
decamethylcyclo-pentasiloxane	541-02-6	PNEC	10 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	11 mg/kg	benthic organisms	sediment	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	13 mg/kg	(top) predators	water	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	1.1 mg/kg	pelagic organisms	sediment	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	1.2 µg/l	aquatic organisms	freshwater	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	0.12 µg/l	aquatic organisms	marine water	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	11 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
decamethylcyclo-pentasiloxane	541-02-6	PNEC	1.1 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
decamethylcyclopentasiloxane	541-02-6	PNEC	2.5 mg/kg	terrestrial organisms	soil	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	2 µg/l	aquatic organisms	freshwater	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	0.2 µg/l	aquatic organisms	marine water	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	0.032 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	0.022 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	0.002 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
parachlorobenzotrifluoride	98-56-6	PNEC	0.026 mg/kg	terrestrial organisms	soil	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	2.1 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	1.3 mg/kg	benthic organisms	sediment	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	0.13 mg/kg	pelagic organisms	sediment	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	44 mg/kg	(top) predators	water	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	5.8 µg/l	aquatic organisms	water	intermittent release
orange oil	8028-48-6 68647-72-3	PNEC	5.4 µg/l	aquatic organisms	freshwater	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	0.54 µg/l	aquatic organisms	marine water	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	2.1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	1.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	0.13 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
orange oil	8028-48-6 68647-72-3	PNEC	0.26 mg/kg	terrestrial organisms	soil	short-term (single instance)

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	colorless - black
Particle	not relevant (liquid)
Odor	like ammonia - citrus

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	>65 °C at 1 atm
Flash point	54 °C at 101 kPa 129 °F at 101 kPa
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	0.6 vol%
- Upper explosion limit (UEL)	4.9 vol%

Vapor pressure	33 Pa at 25 °C
Density	0.93 $^{g}/_{ml}$
Vapor density	this information is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	262 °C (auto-ignition temperature (liquids and gases))
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

Temperature class (USA, acc. to NEC 500)	T2B (maximum permissible surface temperature on the equipment: 260°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

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.

GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	2649792-57-2	oral	500 $^{mg}/_{kg}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Remarks	Number
parachlorobenzotrifluoride	98-56-6	2B		

Legend
2B Possibly carcinogenic to humans

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

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Very 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
decamethylcyclopentas-iloxane	541-02-6	LC50	>16 µg/l	fish	96 h
decamethylcyclopentas-iloxane	541-02-6	EC50	>2.9 µg/l	aquatic invertebrates	48 h
parachlorobenzotrifluor-ide	98-56-6	LC50	3 mg/l	fish	48 h
parachlorobenzotrifluor-ide	98-56-6	ErC50	>0.41 mg/l	algae	72 h
parachlorobenzotrifluor-ide	98-56-6	EC50	>0.41 mg/l	algae	72 h
orange oil	8028-48-6 68647-72-3	LL50	5.7 mg/l	fish	96 h
orange oil	8028-48-6 68647-72-3	EL50	1.4 mg/l	aquatic invertebrates	24 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
decamethylcyclopentas-iloxane	541-02-6	LC50	>16 µg/l	fish	14 d
decamethylcyclopentas-iloxane	541-02-6	EC50	>15 µg/l	aquatic invertebrates	21 d
parachlorobenzotrifluor-ide	98-56-6	LC50	6.5 mg/l	fish	24 h
parachlorobenzotrifluor-ide	98-56-6	EC50	242 mg/l	microorganisms	30 min

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

Contains a PBT-substance in a concentration of ≥ 0.1%. Contains a vPvB-substance in a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

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 1993
IMDG-Code	UN 1993
ICAO-TI	UN 1993

14.2 UN proper shipping name

DOT	Flammable liquid, n.o.s.
IMDG-Code	FLAMMABLE LIQUID, N.O.S.
ICAO-TI	Flammable liquid, n.o.s.
Technical name (hazardous ingredients)	parachlorobenzotrifluoride, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI

14.3 Transport hazard class(es)

DOT	3
IMDG-Code	3
ICAO-TI	3

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): decamethylcyclopentasiloxane

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

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)

Particulars in the shipper's declaration	UN1993, Flammable liquid, n.o.s., (parachlorobenzotrifluoride, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI, solution), 3, III, environmentally hazardous
Danger label(s)	3, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	B1, B52, IB3, T4, TP1, TP29
ERG No	128

International Maritime Dangerous Goods Code (IMDG)

Marine pollutant	yes (hazardous to the aquatic environment) (decamethylcyclopentasiloxane)
Danger label(s)	3, fish and tree

Special provisions (SP)	223, 274, 955
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-E
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR)

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	3

Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 L

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

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

Clean Air Act

none of the 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
decamethylcyclopentasiloxane	541-02-6	solvents	Canada PBiTs CECBP - Priority Chemicals EC PBTs
distillates (petroleum) hydrotreated, light	64742-47-8	solvents	
parachlorobenzotrifluoride	98-56-6	solvents	
Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	2649792-57-2	refractory resin	
trimethylsiloxysilicate	68988-56-7	resin	
polydimethylsiloxane	63148-62-9	surface modifier	
polytrimethylhydrosilylsiloxane	68988-56-7	surface modifier	

Cleaning Product Right to Know Act Substance List (CA-RTK)			
Name of substance	**CAS No**	**Functionality**	**Authoritative Lists**
orange oil	8028-48-6 68647-72-3	fragrance	
7-(diethylamino)-4-methyl-2H-chromen-2-one	91-44-1	colorant	
tetra(trimethylsiloxy)silane	3555-47-3	surface modifier	Canada PBiTs
Graphene	7782-42-5	surface modifier	
pine oil	8002-09-3	fragrance	
alpha-Terpineol acetate	80-26-2	fragrance	
amyl salicylate	2050-08-0	fragrance	
alpha terpineol	98-55-5	fragrance	
isobornyl acetate	125-12-2	fragrance	
3,7-dimethyl-2,6-nonadienenitrile	61792-11-8	fragrance	
DL-limonene	138-86-3	fragrance	
linalool	78-70-6	fragrance	EU Fragrance Allergens
Dihydromyrcenol	18479-58-8	fragrance	

- Toxic or Hazardous Substance List (MA-TURA)

none of the ingredients are listed

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**
p-chloro-α,α,α-trifluorotoluene (para-Chlorobenzotrifluoride, PCBTF)	98-56-6	4.5		cancer

VOC content

- Regulated Volatile Organic Compounds (VOC-EPA) 0.27 %
- Regulated Volatile Organic Compounds (VOC-Cal ARB) 0.27 %

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	2	temporary or minor injury may occur
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures 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

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	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
CA	DSL	not all ingredients are listed
CA	NDSL	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
AU	AIIC	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed

Country	Inventory	Status
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
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
2.1		Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): change in the listing (table)	yes
2.1	Additional information: Containing a PBT-/vPvB-substance in a concentration of ≥ 0,1%.	Additional information: Contains a PBT-/vPvB-substance in a concentration of ≥ 0.1%.	yes
2.2		- Hazard statements: change in the listing (table)	yes
2.2	- Hazardous ingredients for labelling: octamethylcyclotetrasiloxane, distillates (petroleum) hydrotreated, light, orange oil, pine oil	- Hazardous ingredients for labelling: parachlorobenzotrifluoride, distillates (petroleum) hydrotreated, light, orange oil, pine oil	yes
2.3	Results of PBT and vPvB assessment: Containing a PBT-/vPvB-substance in a concentration of ≥ 0,1%.	Results of PBT and vPvB assessment: Contains a PBT-substance in a concentration of ≥ 0.1%. Contains a vPvB-substance in a concentration of ≥ 0.1%.	yes
2.3	Endocrine disrupting properties: Contains an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	yes
3.2		Hazardous ingredients acc. to GHS: change in the listing (table)	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
5.2	Special hazards arising from the substance or mixture: In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.	Special hazards arising from the substance or mixture: none In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.	yes
5.2	Hazardous combustion products: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)	Hazardous combustion products: Carbon monoxide (CO), Carbon dioxide (CO2)	yes
8.1	Control parameters: This information is not available.	Control parameters: Occupational exposure limit values (Workplace Exposure Limits) this information is not available	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
9.1	Vapor pressure: 132 Pa at 25 °C	Vapor pressure: 33 Pa at 25 °C	yes
11.1	Acute toxicity: Shall not be classified as acutely toxic.GHS of the United Nations, annex 4: May be harmful if swallowed.	Acute toxicity: Shall not be classified as acutely toxic.GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.	yes
11.1		Acute toxicity estimate (ATE) of components of the mixture: change in the listing (table)	yes
11.1	Carcinogenicity: Shall not be classified as carcinogenic.	Carcinogenicity: Suspected of causing cancer.	yes
11.1		IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: change in the listing (table)	yes
11.1	Reproductive toxicity: Suspected of damaging fertility.	Reproductive toxicity: Shall not be classified as a reproductive toxicant.	yes
12.1		Aquatic toxicity (acute) of components of the mixture: change in the listing (table)	yes
12.1		Aquatic toxicity (chronic) of components of the mixture: change in the listing (table)	yes
12.5	Results of PBT and vPvB assessment: The mixture contains a substance that was identified as a PBT (persistent, bioaccumulative and toxic). The mixture contains a substance that was identified as vPvB (very persistent and very bioaccumulative).	Results of PBT and vPvB assessment: Contains a PBT-substance in a concentration of ≥ 0.1%. Contains a vPvB-substance in a concentration of ≥ 0.1%.	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
12.6	Endocrine disrupting properties: Contains an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	yes
14.2	Technical name (hazardous ingredients): octamethylcyclotetrasiloxane, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	Technical name (hazardous ingredients): parachlorobenzotrifluoride, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI	yes
14.7	Particulars in the shipper's declaration: UN1993, Flammable liquid, n.o.s., (contains: octamethylcyclotetrasiloxane, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI), 3, III, environmentally hazardous	Particulars in the shipper's declaration: UN1993, Flammable liquid, n.o.s., (parachlorobenzotrifluoride, Cyclosilazanes, di-Me, Me Hydrogen, polymers with di-Me, Me hydrogen silazanes, and 2,4-TDI, solution), 3, III, environmentally hazardous	yes
14.7	Reportable quantity (RQ): 22,988,506 lbs (10,436,782 kg) (methanol)		yes
15.1		Specific Toxic Chemical Listings (EPCRA Section 313): none of the ingredients are listed	yes
15.1		Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	yes
15.1		List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4): none of the ingredients are listed	yes
15.1		Cleaning Product Right to Know Act Substance List (CA-RTK): change in the listing (table)	yes
15.1		Toxic or Hazardous Substance List (MA-TURA): none of the ingredients are listed	yes
15.1		Proposition 65 List of chemicals: change in the listing (table)	yes
15.1	Regulated Volatile Organic Compounds (VOC-EPA): 0.29 %	Regulated Volatile Organic Compounds (VOC-EPA): 0.27 %	yes
15.1	Regulated Volatile Organic Compounds (VOC-Cal ARB): 0.29 %	Regulated Volatile Organic Compounds (VOC-Cal ARB): 0.27 %	yes
15.1		National inventories: change in the listing (table)	yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16		List of relevant phrases (code and full text as stated in section 2 and 3): 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
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
Cal ARB	California Air Resources Board
Carc.	Carcinogenicity
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
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
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
Flam. Liq.	Flammable liquid
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)
IARC	International Agency for Research on Cancer
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

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Abbr.	Descriptions of used abbreviations
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
NLP	No-Longer Polymer
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)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
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
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H227	Combustible liquid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

Disclaimer

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