Safety Data Sheet

according to UK REACH Regulation

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

1.1. Product identifier

Coat Ultima - PSR-Technology

UFI: Q7K4-AEKU-CH9X-EJDX

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

Use of the substance/mixture

Plating agent (Paints and varnishes)

1.3. Details of the supplier of the safety data sheet

Company name:	ServFaces GmbH	
Street:	Zeppelinstrasse 2-4	
Place:	D-72488 Sigmaringen	
Telephone:	+49 7571 6894 0	
E-mail:	info@servfaces.de	
Contact person:	Joerg Reents	Telephone: +49 7571 6894 0
E-mail:	info@servfaces.de	
Internet:	www.servfaces.de	
Responsible Department:	Giftinformationszentrum Mainz / 24h Deutsch & Englisch	

1.4. Emergency telephone number:

+49 6131 / 19240 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225
Acute Tox. 4; H302
Skin Corr. 1B; H314
Eye Dam. 1; H318
Skin Sens. 1; H317
Asp. Tox. 1; H304
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics
3-aminopropyltriethoxysilane

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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 Label elements on this label).

2.3. Other hazards

Vapours can form explosive mixtures with air.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
475645-84-2	Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with			35 - < 50 %
	Flam. Liq. 2, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Chronic 3; H225 H302 H314 H318 H412			
	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics			35 - < 50 %
	926-141-6		01-2119456620-43	
	Asp. Tox. 1; H304 EUH066			
142-96-1	di-n-butyl ether; dibutyl ether			5 - < 10 %
	205-575-3	603-054-00-9	01-2119982240-42	
	Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 3; H226 H315 H319 H335 H412			
919-30-2	3-aminopropyltriethoxysilane			1 - < 5 %
	213-048-4	612-108-00-0		
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1; H302 H314 H318 H317			

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		
475645-84-2		Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with	35 - < 50 %
	oral: LD50 = > 300 - 2000 mg/kg		
	926-141-6	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	35 - < 50 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
142-96-1	205-575-3	di-n-butyl ether; dibutyl ether	5 - < 10 %
	inhalation: LC50 = 21,6 mg/l (vapours); dermal: LD50 = 7741 mg/kg; oral: LD50 = 7400 mg/kg STOT SE 3; H335: >= 10 - 100		
919-30-2	213-048-4	3-aminopropyltriethoxysilane	1 - < 5 %
	oral: ATE = 500 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. 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

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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.
Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists

with water spray jet. 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 all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Remove persons to safety. Evacuate area. Use personal protection equipment.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). 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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, 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. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

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)

Plating agent (Paints and varnishes)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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 exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Wear suitable gloves.
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.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and 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:	Liquid	
Colour:	colourless	
Odour:	characteristic	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		*) > 100 °C
Flammability:		not applicable
		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		*) < 21 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		**) not determined
Water solubility:		not determined

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density:	not determined
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:	not determined
Viscosity / dynamic:	not determined

Further Information

Odour threshold: not determined

*) Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with
**) @ES04.B001343: Kinematic viscosity (40°C): = 20,5 mm²/s

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Protect from direct sunlight.
Protect against: Frost.

10.5. Incompatible materials

Oxidizing agent. Pyrophoric or self-heating substances.

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

Harmful if swallowed.

ATEmix calculated

ATE (oral) 722,4 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
475645-84-2	Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with				
	oral	LD50 > 300 - 2000 mg/kg	Rat	Manufacturer	OECD 423
	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 > 5000 mg/kg	Rabbit	Manufacturer	OECD 402
142-96-1	di-n-butyl ether; dibutyl ether				
	oral	LD50 7400 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 7741 mg/kg	Rabbit	Manufacturer	OECD 402
	inhalation (4 h) vapour	LC50 21,6 mg/l	Rat	Manufacturer	OECD 403
919-30-2	3-aminopropyltriethoxysilane				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (3-aminopropyltriethoxysilane)

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

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
475645-84-2	Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with						
	Acute fish toxicity	LC50 mg/l	57,1	96 h	Danio rerio (zebrafish)	Manufacturer	OECD 203
142-96-1	di-n-butyl ether; dibutyl ether						
	Acute fish toxicity	LC50 mg/l	32,3	96 h	Pimephales promelas (fathead minnow)	Manufacturer	OECD 203
	Acute algae toxicity	ErC50	11,5 mg/l	72 h	Pseudokirchneriella subcapitata	Manufacturer	OECD 201
	Acute crustacea toxicity	EC50	26 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000	0,5 h	Activated sludge	Manufacturer	OECD 209

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics			
	Water	69 %	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			
142-96-1	di-n-butyl ether; dibutyl ether			
	OECD 301D	5 %	28	Manufacturer
	Not 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
142-96-1	di-n-butyl ether; dibutyl ether	3,21

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 product has not been tested.

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.

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.

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

Hazardous waste according to Directive 2008/98/EC (waste framework directive). 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:	UN 3469
14.2. UN proper shipping name:	PAINT, FLAMMABLE, CORROSIVE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8

Classification code:	FC
Special Provisions:	163 367
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	338
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 3469
14.2. UN proper shipping name:	PAINT, FLAMMABLE, CORROSIVE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8

Classification code:	FC
Special Provisions:	163 367
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3469
14.2. UN proper shipping name:	PAINT, FLAMMABLE, CORROSIVE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8

Special Provisions:	163, 367
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-C

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3469

14.2. UN proper shipping name: PAINT, FLAMMABLE, CORROSIVE

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3+8

Special Provisions:	A3 A72 A192 A803
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y340
Excepted quantity:	E2
IATA-packing instructions - Passenger:	352
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	363
IATA-max. quantity - Cargo:	5 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: corrosive, flammable liquids

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2010/75/EU on industrial emissions:	< 51 %
Directive 2004/42/EC on VOC in paints and varnishes:	< 100 %
Information according to Directive 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
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

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H302	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Asp. Tox. 1; H304	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
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.)