

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 20.07.2020

Product code: CCH-011

Page 1 of 11

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

1.1. Product identifier

Aeon Ceramic Coating

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

Use of the substance/mixture

Coating

Uses advised against

Only use for the intended purpose.

1.3. Details of the supplier of the safety data sheet

| | | |
|-----------------|--------------------------|-------------------------------|
| Company name: | Carrus Cultus GmbH | |
| Street: | Turley-Straße 8 | |
| Place: | D-68167 Mannheim | |
| Telephone: | +49 621 483 450 260 | |
| e-mail: | info@herrenfahrt.com | |
| Contact person: | Andreas Werner | Telephone: +49 621 483 450 26 |
| e-mail: | a.werner@herrenfahrt.com | |
| Internet: | www.herrenfahrt.com | |

1.4. Emergency telephone number:

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Corr. 1B
Serious eye damage/eye irritation: Eye Dam. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Highly flammable liquid and vapour.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

n-butyl acetate
Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanamine

Signal word: Danger

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 2 of 11

Pictograms:



Hazard statements

- H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P501 Dispose of contents/container according to regional/national regulations. Do not discard with household waste.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|-------------|---|------------------|
| | EC No | |
| | Index No | |
| | REACH No | |
| | GHS Classification | |
| 123-86-4 | n-butyl acetate | 50 - 100 % |
| | 204-658-1 | 607-025-00-1 |
| | | 01-2119485493-29 |
| | Flam. Liq. 3, STOT SE 3; H226 H336 EUH066 | |
| 475645-84-2 | Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanamine | 50 - < 55 % |
| | | |
| | Flam. Liq. 2, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Chronic 3; H225 H302 H314 H318 H412 | |
| 108-88-3 | toluene | >=0,3 - <1 % |
| | 203-625-9 | 601-021-00-3 |
| | Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304 | |

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

SECTION 4: First aid measures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 3 of 11

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

After inhalation

If irritations or allergic reactions should occur as a consequence of handling the product (particularly if large quantities have been inhaled): Move victim to fresh air. Put victim at rest and keep warm. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

Remove contaminated, saturated clothing immediately. (caution, fire hazard) After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

Remove contact lenses. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunken in little sips (dilution effect). Seek medical attention if problems persist.

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

Causes severe skin burns and eye damage.
irritation. burnes. gastro-intestinal ailment. Spasms. vomiting. Dyspnoea. Nausea.

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

Foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide. Carbon dioxide. Irritating/poisonous gasses and vapours.

5.3. Advice for firefighters

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

Additional information

Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.
Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated articles and floor according to the environmental legislation.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 4 of 11

6.4. Reference to other sections

Personal protection equipment: see section 8
Handling and storage: see section 7
For waste disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When in use in confined, warm rooms: Ensure adequate ventilation.
At the place of work (in production and when refilling): Wear personal protection equipment.
Do not empty into drains; dispose of this material and its container in a safe way.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.
Vapours may form explosive mixtures with air.

Further information on handling

Remove contaminated, saturated clothing immediately. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.
Protect from sunlight and heat sources. Keep only in the original container.
Prevent entry into drains, the aquatic environment or soil.

Hints on joint storage

Keep away from: heat. Oxidizing agents. ignition sources. Water.

7.3. Specific end use(s)

Coating

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|----------|---------------|-----|-------------------|-----------|---------------|--------|
| 123-86-4 | Butyl acetate | 150 | 724 | | TWA (8 h) | WEL |
| | | 200 | 966 | | STEL (15 min) | WEL |
| 108-88-3 | Toluene | 50 | 191 | | TWA (8 h) | WEL |
| | | 100 | 384 | | STEL (15 min) | WEL |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|-----------------|----------------|--------|--------------------------|
| 123-86-4 | n-butyl acetate | | | |
| Consumer DNEL, acute | | inhalation | | 859,7 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | | 102,34 mg/m ³ |
| Worker DNEL, acute | | inhalation | | 960 mg/m ³ |
| Worker DNEL, long-term | | inhalation | | 480 mg/m ³ |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 5 of 11

PNEC values

| CAS No | Substance | Value |
|--|-----------------|--------------|
| Environmental compartment | | |
| 123-86-4 | n-butyl acetate | |
| Freshwater | | 0,18 mg/l |
| Marine water | | 0,018 mg/l |
| Freshwater sediment | | 0,981 mg/kg |
| Marine sediment | | 0,0981 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 35,6 mg/l |
| Soil | | 0,0903 mg/kg |

Additional advice on limit values

Currently there are no further exposure limits available.

8.2. Exposure controls

Protective and hygiene measures

Consider the usual precautions for handling chemicals. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Protect skin by using skin protective cream. Avoid contact with skin and eyes.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Wear suitable gloves. Suitable material: Rubber. PVC (Polyvinyl chloride). PVA (Polyvinyl alcohol). 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. Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Under normal usage conditions, not necessary.

Respiratory protection

Within the recommended use and adequate ventilation no respiratory protection is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|-------------------|
| Physical state: | liquid |
| Colour: | colourless |
| Odour: | slightly |
| pH-Value: | no data available |

Changes in the physical state

| | |
|--|-------------------|
| Melting point: | no data available |
| Initial boiling point and boiling range: | 124 °C |
| Flash point: | 16 °C |

Flammability

| | |
|--------|-------------------|
| Solid: | no data available |
| Gas: | no data available |

Explosive properties

no data available

| | |
|-------------------------|-------------------|
| Lower explosion limits: | no data available |
| Upper explosion limits: | no data available |

according to Regulation (EC) No 1907/2006

Revision date: 20.07.2020

Aeon Ceramic Coating

Product code: CCH-011

Page 6 of 11

| | |
|-------------------------------------|---------------------|
| Ignition temperature: | 435 °C |
| Auto-ignition temperature | |
| Solid: | no data available |
| Gas: | no data available |
| Decomposition temperature: | no data available |
| Oxidizing properties | |
| no data available | |
| Vapour pressure: | no data available |
| Density: | no data available |
| Bulk density: | no data available |
| Water solubility: | completely miscible |
| Solubility in other solvents | |
| no data available | |
| Partition coefficient: | no data available |
| Viscosity / dynamic: | no data available |
| Viscosity / kinematic: | no data available |
| Vapour density: | no data available |
| Evaporation rate: | no data available |

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is rapidly hydrolyzed in the presence of water to: hydrogen, ammonia, siloxanes.

10.2. Chemical stability

The product is stable under normal environmental conditions (room temperature).

10.3. Possibility of hazardous reactions

Reacts with: Water. moisture. Alcohol. Amines.

10.4. Conditions to avoid

Keep away from heat, sparks, flames, hot surfaces and moisture.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

During thermal decomposition, e.g. due to overheating during processing or in the event of fire, harmful gases and vapours may be produced:
Hydrogen. Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1000,0 mg/kg

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 7 of 11

| CAS No | Chemical name | | | | | |
|-------------|---|---------------|-----------|---------|--------|--------|
| | Exposure route | Dose | | Species | Source | Method |
| 123-86-4 | n-butyl acetate | | | | | |
| | oral | LD50 mg/kg | 13100 | Rat | | |
| | dermal | LD50 mg/kg | >17600 | Rabbit | | |
| | inhalation (4 h) vapour | LC50 | >21 mg/l | Rat | | |
| 475645-84-2 | Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanamine | | | | | |
| | oral | ATE | 500 mg/kg | | | |
| 108-88-3 | toluene | | | | | |
| | oral | LD50 | 5300-591 | Rat | | |
| | dermal | LD50 mg/kg | 12200 | Rabbit | | |
| | inhalation (4 h) vapour | LC50 | 28,1 mg/l | Rat | | |

Irritation and corrosivity

Causes severe skin burns and eye damage.
Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (n-butyl acetate)

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.

Practical experience

Other observations

Has degreasing effect on the skin.

SECTION 12: Ecological information

12.1. Toxicity

| CAS No | Chemical name | | | | | |
|----------|--------------------------|-------|-----------|---------|-------------------------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 123-86-4 | n-butyl acetate | | | | | |
| | Acute fish toxicity | LC50 | 62 mg/l | 96 h | Leuciscus idus (golden orfe) | |
| | Acute algae toxicity | ErC50 | 674 mg/l | 72 h | Scenedesmus subspicatus | |
| 108-88-3 | toluene | | | | | |
| | Acute fish toxicity | LC50 | 24 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | |
| | Acute crustacea toxicity | EC50 | 11,5 mg/l | 48 h | Daphnia magna | |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 8 of 11

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---------------|---------|
| 108-88-3 | toluene | 2,73 |

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Small quantities may be diluted with water and washed away. Larger quantities must be disposed properly according to local regulations.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Contaminated packaging

Non-contaminated packages may be recycled.

Recommended cleaning agent: Water.

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|--|
| <u>14.1. UN number:</u> | UN 2924 |
| <u>14.2. UN proper shipping name:</u> | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate) |
| <u>14.3. Transport hazard class(es):</u> | 3 |
| <u>14.4. Packing group:</u> | II |
| Hazard label: | 3+8 |



| | |
|--------------------------|-----|
| Classification code: | FC |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 338 |
| Tunnel restriction code: | D/E |

Inland waterways transport (ADN)

| | |
|--|--|
| <u>14.1. UN number:</u> | UN 2924 |
| <u>14.2. UN proper shipping name:</u> | FLAMMABLE LIQUID, CORROSIVE, N.O.S. n-butyl acetate |
| <u>14.3. Transport hazard class(es):</u> | 3 |
| <u>14.4. Packing group:</u> | II |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 9 of 11

Hazard label: 3+8



Classification code: FC
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate)
14.3. Transport hazard class(es): 3
14.4. Packing group: II

Hazard label: 3+8



Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-E, S-C

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate)
14.3. Transport hazard class(es): 3
14.4. Packing group: II

Hazard label: 3+8



Special Provisions: A3
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

No special precautions known.

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

not applicable

SECTION 15: Regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 10 of 11

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 48: toluene

2004/42/EC (VOC): 0%

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

Regulation (EC) No. 648/2004 (Detergents regulation): The surfactants contained in this mixture meet the biodegradability terms, which are defined in Regulation (EC) No 648/2004 on detergents. The documents confirming this are held available for the responsible authorities of the member states; the documents will be provided upon their request or upon direct request of a detergent manufacturer.

National regulatory information

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:

n-butyl acetate

SECTION 16: Other information

Changes

Version 1,00 - First Creation - 20.07.2020

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)

EC: Effective Concentration

EG: European Community (Europäische Gemeinschaft)

EN: European Norm

IATA: International Air Transport Association

IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

ISO: Norm of the International Standards Organization

CLP: Classification, Labeling, Packaging

IUCLID: International Uniform Chemical Information Database

LC: Lethal concentration

LD: Lethal dose

log Kow: Octanol/water partition coefficient

MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships

OECD: Organisation for Economic Co-operation and Development

PBT: Persistent, bio-cumulative, toxic

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Aeon Ceramic Coating

Revision date: 20.07.2020

Product code: CCH-011

Page 11 of 11

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds
 vPvB: very persistent and very bio-cumulative
 AwSV: Ordinance on Installations for Handling Substances Hazardous to Water
 WGK: German Water Hazard Class
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 DNEL: Derived No Effect Level
 PNEC: Predicted No Effect Concentration
 TLV: Threshold Limiting Value
 STOT: Specific Target Organ Toxicity

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| 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 |
| STOT SE 3; H336 | 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. |
| H318 | Causes serious eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

assesio AG, Frohsinnstraße 28, 63739 Aschaffenburg, Germany
 Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@assesio.eu, www.assesio.eu

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