Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

*
1 Identification of the hazardous chemical and of the supplier

· **Product identifier**

· **Trade name: Polished Concrete Sealer**
· **Registration number** Mixture
· **Recommended use of the chemical and restrictions on use**
· **Product category** PC15 Non-metal-surface treatment products
· **Application of the substance / the mixture** Sealant
· **Uses advised against**
Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).
Any use involving aerosol formation or vapour release in excess of the assigned WEL where workers are exposed without suitable RPE.
Processes involving extreme heat use advised against.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Coval Technologies
3 Fusionopolis Place
04-54 Galaxis Work Loft
Singapore 138523

Phone: +65 6568 3903

· **Further information obtainable from:** Product safety department.
· **Emergency telephone number:**
Chemtrec APAC: +65 3163 8374
Chemtrec Malaysia: +60 3-9212 5794 or 1-800-81-5308

2 Hazard identification

· **Classification of the substance or mixture**

flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

· **Label elements**
· **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
· **Hazard pictograms** GHS02
· **Signal word** Warning
· **Hazard statements**
H226 Flammable liquid and vapour.
· **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/lighting equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235	Store in a well-ventilated place. Keep cool.

(Contd. on page 2)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 1)

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition and information of the ingredients of the hazardous chemical

· **Chemical characterisation: Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**			
540-88-5	tert-butyl acetate	Flam. Liq. 2, H225	25 – 100%
616-38-6	dimethyl carbonate	Flam. Liq. 2, H225	10 – 50%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· **Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:**
Wash mouth out with water
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
· **Information for doctor:** Treat symptomatically and supportively.
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture**
Flammable. Vapors may travel to source of ignition and flash back.
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
· **Additional information**
Cool endangered receptacles with water spray.
Absorb gas/vapours with water spray.

(Contd. on page 3)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 2)

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
· **Methods and material for containment and cleaning up:**
Contain and collect spillage with non-combustible, absorbent material e.g.sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Contaminated absorbent material may pose the same hazard as the spilt product.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
· **Information about storage in one common storage facility:**
Do not store together with oxidising and acidic materials.
· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
· **Storage class:** 3
· **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

· **Additional information about design of technical facilities:** No further data; see section 7.

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
540-88-5 tert-butyl acetate	
PEL (Malaysia)	Long-term value: 950 mg/m³, 200 ppm

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing

(Contd. on page 4)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 3)

Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Contaminated clothes are a fire hazard. Rinse with plenty of water.
Do not eat, drink, smoke or sniff while working.
Do not carry product impregnated cleaning cloths in trouser pockets.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**

Protective gloves.
Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses with side-shields conforming to EN166.
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· **Body protection:**

Flame retardant antistatic protective clothing.

Body protection must be chosen depending on product properties, activity and possible exposure.

· **Limitation and supervision of exposure into the environment**
Do not let product enter drains. Risk of explosion.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Colour:	According to product specification
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/freezing point	Undetermined.
Initial boiling point and boiling range	90.5 °C
· **Flash point:**	25 °C
· **Flammability (solid, gas)**	Flammable.
· **Decomposition temperature:**	Not determined.

(Contd. on page 5)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 4)

· **Auto-ignition temperature**	Product is not self-igniting.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure at 20 °C:**	41 hPa
· **Density at 20 °C:**	0.89 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Fully miscible.
· **Partition coefficient: n-octanol/water**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
VOC (EC)	50 – 90 %
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
Heating will cause rise in pressure of container with risk of bursting.
At elevated temperatures, explosive vapour/air mixtures may be formed.
· **Possibility of hazardous reactions** Reacts violently with oxidising agents.
· **Conditions to avoid** Heat and static discharge.
· **Incompatible materials:** Strong acids and oxidising agents
· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity**

· **LD/LC50 values relevant for classification:**

616-38-6 dimethyl carbonate

Oral	LD50	13,000 mg/kg (rat)
Dermal	LD50	> 5,000 mg/kg (rabbit)

· **Primary irritant effect:**
· **Skin corrosion or irritation** No irritant effect.
· **Serious eye damage or eye irritation** Based on available data, the classification criteria are not met.
· **Respiratory / skin sensitization**
No sensitising effects known.
Based on available data, the classification criteria are not met.

(Contd. on page 6)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 5)

· **Additional toxicological information:**
· **CMR effects (carcinogenity, mutagenicity and toxicity 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.
· **Specific target organ toxicity (STOT) – single exposure**
Based on available data, the classification criteria are not met.
· **Specific target organ toxicity (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.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal information

· **Waste treatment methods**
· **Recommendation**
Recommended Hierarchy of Controls:
- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Uncleaned packaging:**
· **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.
Container remains hazardous when empty. Continue to observe all precautions.
Containers, even those that are “empty,” may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

(Contd. on page 7)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 6)

14 Transportation information

· **UN-Number**	
· **ADR/RID/ADN, IMDG, IATA**	UN1139
· **UN proper shipping name**	
· **ADR/RID/ADN**	UN1139 COATING SOLUTION
· **IMDG, IATA**	COATING SOLUTION
· **Transport hazard class(es)**	
· **ADR/RID/ADN, IMDG, IATA**	

· **Class**	3 Flammable liquids.
· **Label**	3
· **Packing group**	
· **ADR/RID/ADN, IMDG, IATA**	III
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Flammable liquids.
· **Hazard identification number (Kemler code):**	30
· **EMS Number:**	F-E,S-E
· **Stowage Category**	A
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	Not dangerous according to the above specifications.
· **ADR/RID/ADN**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Transport category**	3
· **Tunnel restriction code**	D/E
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN 1139 COATING SOLUTION, 3, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **EHS reference list**	
540-88-5	tert-butyl acetate
616-38-6	dimethyl carbonate

· **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
· **Hazard pictograms** GHS02
· **Signal word** Warning

(Contd. on page 8)

Safety Data Sheet
according to P.U.(A) 310/2013

Printing date 19.12.2023 Version number 1 Revision: 19.12.2023

Trade name: Polished Concrete Sealer

(Contd. of page 7)

· **Hazard statements**
H226 Flammable liquid and vapour.
· **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/lighting equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235	Store in a well-ventilated place. Keep cool.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** P5c
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **National regulations:**

· **Information about limitation of use:**

Class	Share in %
NK	60.0

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department.
· **Contact:**
· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
· *** Data compared to the previous version altered.**