SAFETY DATA SHEET

Enhance n Seal

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in This Safety Data Sheet is provided in accordance with the REACH Regulation (EC) No 1907/2006 and the UK REACH Regulations SI 2019/758.

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

1.1 Product identifier
Trade Name: Enhance n Seal

1.2 Relevant identified uses of the substance or mixture and uses advised against
Water repellent and sealer for stone products

1.3 Details of the supplier of the safety data sheet
All For Stone Limited
4 Gardd Yr Gwanwyn
Northrop Hall
Mold
Flintshire
CH7 6GA
Mold, Wales, U.K.
Tel: + 44 (0)1244 535127

E mail: info@celtexagencies.co.uk

1.4 Emergency telephone number

Tel. + 44 (0)1244 535127 (office hours)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

This mixture is classified as hazardous according to the CLP Regulation (EC) No 1272/2008 and the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain:

Physical Hazards	Flammable Liquid Category 2 H225
Health Hazards	Skin Irritant Category 2 H315
	Eye Irritant Category 2 H319
Environmental Hazards	Aquatic Chronic 2 H411

2.2 Label elements
Labelling in accordance with the CLP Regulation (EC) No 1272/2008 and the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain:

Pictograms

Signal Word: Danger

Hazard Statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects

Precautionary Statements

P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 IF ON SKIN (or Hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.
P308+313 IF exposed or concerned: Get medical advice/attention

Supplementary Labelling
EUH210 Safety data sheet available on request

2.3 Other hazards
Highly flammable liquid and vapour. Keep away from ignition sources. Keep containers tightly closed when not in use.
Irritating to skin and eyes. Avoid contact.
Toxic to the aquatic environment. May cause long term effects. Prevent entry into watercourses and drains.

This product contains a substance, Octamethylcyclotetrasiloxane (D4) which is known to be Persistent, Bioaccumulatve and Toxic (PBT). Octamethylcyclotetrasiloxane (D4) has also been identified as an endocrine disruptor by some authorities.

SECTION 3: Composition

3.1 Substances
No applicable – product is a mixture.

3.2 Mixtures

Name	CAS No	Concentration	Classification
Methylmethoxy siloxane with methyl silesquioxane	68037-85-4	40 - 50	Flam. Liq. 3, H226
Triethoxyoctylsilane	2943-75-1	10 – 15	Skin Irrit. 2, H315
Titanium tetrabutanolate	5593-70-4	1 - 3	Flam. Liq. 3, H226, Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3 H335 STOT SE 3 H336

Octamethylcyclotetrasiloxane	556-67-2	<2.5	Flam. Liq. 3, H226 Repr. 2 H361f Aquatic Chronic 1 H410 M (Chronic) = 10 PBT substance

See section 16 for full description of H statements.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

EYE CONTACT: Wash thoroughly with COOL water for several minutes and obtain medical attention if signs of discomfort.
INHALATION: Remove to fresh air from exposure. If breathing becomes difficult call a doctor.
SKIN CONTACT: Remove contaminated clothing. Wash off with soap and water. Seek medical attention if irritation occurs. Wash contaminated clothing before re-use.
INGESTION: If swallowed, rinse mouth with water. Do not induce vomiting. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

EYES: Redness, pain, tearing (watering) of eyes.
INHALATION: Irritation of nose and throat, cough, breathing difficulties.
SKIN: Redness, irritation. On prolonged/repeated exposure, dryness, cracking.
INGESTION: Discomfort, nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatments needed

Symptomatic treatment as required.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Do not use water. Foam, dry chemical, carbon dioxide recommended.

5.2 Special hazards arising from the substance or mixture

Fire will form hazardous combustion gases of Carbon dioxide (CO2), Carbon Monoxide (CO), and Nitrogen Oxides (NOx) Product contains silicone, which is known to produce formaldehyde when temperatures reach in excess of 150°C. Formaldehyde is a known skin, eye, and throat irritant as well as a potential cancer hazard, Use water spray to keep fire exposed containers cool.

5.3 Advice for fire fighters

Fire fighters should wear structural fire-fighting gear and self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Isolate the spill area and keep unnecessary personnel away. Remove all ignition sources. Ensure adequate ventilation. Wear suitable protective clothing including gloves and eye protection. See section 8 for further details. Caution – spill area may be slippery.

6.2 Environmental precautions

Prevent further leakage or spillage. Keep away from drains, surface and ground-water and soil. If large quantity of product does enter waterways or sewerage system, inform appropriate authorities.

6.3 Methods and materials for containment and clearing up

SMALL SPILLS: Spills of up to 1 litre can be absorbed in a non-combustible absorbent, e.g. sand or vermiculite, and place in a suitable container and label for disposal.
LARGE SPILLS: Contain spill and cover if possible to prevent spreading of spilled material. Absorb spilled liquid with suitable material such as dirt or sand. Place in appropriate container and label for disposal.

Wash spill site thoroughly with water and detergent.

6.4 References to other sections
See section 8 for further advice on protective equipment and section 13 for further advice on disposal.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling
Keep away from sources of ignition. No smoking. Open containers slowly, on a stable surface. Avoid contact with skin and eyes. Do not breathe sprays or mists. Use only in a well-ventilated location. As with any chemical, employees should thoroughly wash hands with soap and water after handling this material. Do not eat or drink while handling this material.

7.2 Conditions for safe storage, including any incompatibilities.
Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store containers away from incompatible chemicals (see section 10). Keep container tightly closed when not in use. Keep out of the reach of children.

7.3 Specific end uses(s)
No specific precautions.

SECTION 8. Exposure Controls/Personal Protection

8.1 Control parameters

Substance	8 hour exposure limit	15 minute exposure limit	Source, Type
Tin compounds, organic, (as Sn)	0.1 mg/m^3	0.2 mg/m^3	EH40, 2020 Sk
Methanol (decomposition product)	200 ppm (266 mg/m^3)	250 ppm (333 mg/m^3)	EH40, 2020 Sk
Butan-1-ol (decomposition product)		50 ppm (154 mg/m^3)	EH40, 2020 Sk

8.2 Exposure controls

Engineering controls
Ensure good room ventilation – open doors and windows if necessary.

Respiratory protection
Not normally required. If adequate ventilation is unavailable, use approved air-purifying respirator with organic vapour cartridge or canister.

Hand Protection
Wear suitable chemical resistant gloves. Butyl rubber or fluorinated rubber may be suitable, but glove manufacturer's recommendations must always be checked. Change gloves in accordance with manufacturer's recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Eye protection
Wear safety glasses or goggles giving protection against liquid droplets/splashes.

Skin protection
Coveralls recommended. These should be changed after use or if contaminated. Wash before re-use.

Environmental exposure controls
Precautions should be taken to avoid accidental release to water courses.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Physical state	Liquid

b) Colour	Yellow
c) Odour	Low odour
d) Melting point/freezing point	No data
e) Boiling point or initial boiling point and boiling range	Decomposes before boiling
f) Flammability	Not applicable
g) Lower and upper explosion limit	5.5-45% (methanol)
h) Flash point	21.1°C
i) Auto-ignition temperature	No data
j) Decomposition temperature	> 150°C
k) pH	Not applicable
l) Viscosity	15-20 cP
m) Solubility	Insoluble in water
n) Partition coefficient n-octanol/water (log value)	No data
o) Vapour pressure	12.3 kPa at 20°C (methanol)
p) Density and/or relative density	1.01 g/ml
q) Relative vapour density	No data
r) Particle characteristics	Not applicable

9.2 Other information
VOC content, wt. %: 84 g/L

SECTION 10: Stability and Reactivity

10.1 Reactivity
The product is designed to react with moisture in air.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Contains alkoxysilanes which may hydrolyse in the presence of water to form highly flammable alcohols (methanol, butan-1-ol).

10.4 Conditions to avoid
Keep away from excessive heat, moisture, sources of ignition.

10.5 Incompatible materials
Acids, bases, iron, may react violently with electrophiles such as ferric chloride

10.6 Hazardous decomposition products
Methanol and butanol in the presence of water. Nitrogen oxides if heated to decomposition.

SECTION 11: Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) acute toxicity	Not considered to be acutely toxic, based upon consideration of the components. Estimate ATE > 6200 mg/kg based on components
(b) skin corrosion/irritation	May cause skin irritation. Symptoms may include redness, oedema.
(c) serious eye damage/irritation	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
(d) respiratory/skin sensitisation	Contains no substances classified as sensitising.

(e) germ cell mutagenicity	Contains no substances classified as germ cell mutagens.
(f) carcinogenicity	Contains no substances classified as carcinogens.
(g) reproductive toxicity	Contains octamethylcyclotetrasiloxane (D4) which is suspected of damaging fertility. In a two-generation reproductive inhalation toxicity study in Sprague-Dawley rats the NOAEC for reproductive toxicity was 300 ppm, based on reduced fertility indices and reduced mean live litter sizes.
(h) STOT-single exposure	Contains methanol at concentrations below thresholds of concern. May cause minor respiratory tract irritation. In high concentrations, vapours may cause drowsiness and dizziness.
(i) STOT-repeated exposure	Contains no substances classified for STOT RE effects.
(j) aspiration hazard	Not applicable.

11.2 Information on other hazards
No further information.

SECTION 12: Ecological Information

12.1 Toxicity
Octamethylcyclotetrasiloxane (D4) is classified as very toxic to the aquatic environment, and, at the concentration present, may have toxic effects in the environment.

96 h LC50: >22 µg/l (Oncorhynchus mykiss)
48 h EC50: >15 µg/l (Daphnia magna)
96 h ErC50: >22 µg/l and ErC10: ≥22 µg/l (Pseudokirchneriella subcapitata)
93 d NOEC ≥4.4 µg/l (Oncorhynchus mykiss)
21 d NOEC ≥15 µg/l (Daphnia magna).

12.2 Persistence and degradability
The polymer is not expected to be readily biodegradable.

12.3 Bioaccumulative potential
Octamethylcyclotetrasiloxane (D4) is considered to be bioaccumulative. A steady state BCF for Common Carp Cyprinus carpio in the range of 3,000 – 4,000 L/kg and a steady-state BCF of 12,400 L/kg for Fathead Minnow Pimephales promelas have been reported.

12.4 Mobility in soil
The major components are not considered to be soluble in water. In the presence of water the product will cure. Unreacted siloxanes may evaporate. In water they may hydrolyse.

12.5 Results of PBT and vPvB assessment
The component Octamethylcyclotetrasiloxane (D4) is classified as PBT.

12.6 Endocrine disrupting properties
The component Octamethylcyclotetrasiloxane (D4) has been identified as endicrine disrupting by some authorities.

12.7 Other adverse effects
None known.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods
Waste should be treated as hazardous chemical waste in a manner that complies with local regulations. Incineration may be suitable. Advice should be sought from local agencies.

The containers should be rinsed thoroughly with water and can be disposed of as non-hazardous waste.

SECTION 14: Transport Information

This product is considered to be dangerous goods for transport because of its flammability.

	ADR	IMDG	ICAO
14.1 UN Number or ID Number	1993	1993	1993
14.2 UN Proper shipping name	Flammable Liquid, n.o.s. (Methanol & Ethanol Solution),	Flammable Liquid, n.o.s. (Methanol & Ethanol Solution),	Flammable Liquid, n.o.s. (Methanol & Ethanol Solution),
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Yes	Yes	Yes
14.6 Special precautions for user	None	None	None
14.7 Maritime transport in bulk according to IMO instruments	Not applicable	Not applicable	Not applicable

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All components are listed as existing substances in Europe

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

SECTION 16: Other Information

Revision information:
This is the first SDS prepared in accordance with EU Regulations.

List of Abbreviations used in this SDS:
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
DSD Dangerous Substances Directive 67/548/EEC
DPD Dangerous Preparations Directive 1999/45/EC
EC European Community/Commission
PBT Persistent, Bioaccumulative and Toxic
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
vPvB very Persistent, very Bioaccumulative

References:
CLP Regulation 1272/2008
EH40, 2007

Method used for classification of mixtures:
Ingredient based approaches

R Phrases and H Statements used in Section 3
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage
H319 Causes serious eye irritation
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness

H361f Suspected of damaging fertility.
H410 Very toxic to aquatic life with long lasting effects
H411 Toxic to aquatic life with long lasting effects

Training requirements for workers
No special training requirements.