SAFETY DATA SHEET

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

- 1.1 Product identifier
 - Product Name: Smartseal Solvent Free Block Paving Sealer
 - Contains 2-methyl-2H-isothiazol-3-one
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 - Use of the substance/mixture: Sealing fresh concrete and sealing existing concrete surfaces
 - Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Smartseal UK Ltd
- Address of Supplier: Unit 3

65-67 Cutlers Road South Woodham Ferrers Chelmsford Essex CM3 5WA UK +44 (0) 1268 722500

- Telephone:
 - Email: contactus@smartseal.co.uk

1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1268 722500
 - (office hours only Mon- Fri 08:30 17:30)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
 - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Skin Sens. 1A, H317
 - Additional information: For full text of Hazard- and EU Hazard-statements: see section 16
- 2.2 Label elements



- Signal Word: Warning
- Hazard statements

H317 - May cause an allergic skin reaction.

- Precautionary statements
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P362+P364 Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents/container to an authorised waste collection point

- Supplemental Hazard Information (EU) None

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SECTION 2: Hazards identification (....)

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	REACH Registration Number	WEL /OEL
propylene glycol; propane-1,2-diol	-	57-55-6	200-338-0	Not Classified	01-2119456809 -23-XXXX	Yes
zinc oxide	<1%	1314-13-2	215-222-5	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	01-2119463881 -32-XXXX	Yes
2-methyl-2H-isothiazol -3-one	<0.1%	2682-20-4	220-239-6	Acute Tox. 3, H301; Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Acute Tox. 2, H330; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; EUH071	-	No

SECTION 4: First aid measures

4.1 Description of first aid measures

- Contact with eyes
- If substance has got into eyes, immediately wash out with plenty of water for several minutes Irrigate eyes thoroughly whilst lifting eyelids Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 Contact with skin
 - Remove contaminated clothing immediately and drench affected skin with plenty of water. Then wash with soap and water Contaminated clothing should be laundered before reuse If skin irritation or rash occurs: Get medical advice/attention.
- Ingestion
 - Rinse mouth with water (do not swallow) Do NOT induce vomiting. Get medical advice/attention if you feel unwell.
- Inhalation
 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Keep warm and at rest, in a half upright position. Loosen clothing
 IF exposed or concerned: Get medical advice/attention.
- 4.2 Most important symptoms and effects, both acute and delayed

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SECTION 4: First aid measures (....)

- Contact with eyes May cause redness and irritation
- Contact with skin May cause skin sensitisation. Stop using product if skin sensitisation occurs. Possible dermatitis of affected areas
- Ingestion
 May cause gastro-intestinal irritation
- Inhalation May cause respiratory tract irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
 - In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide
- 5.2 Special hazards arising from the substance or mixture
 - Spillage causes slippery surface
- 5.3 Advice for firefighters
 - Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
 - Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
 - Rescuers should take suitable precautions to avoid becoming casualties themselves
 - Personal precautions for non-emergency personnel: Avoid breathing vapours, mist or gas; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling.
 - Personal precautions for emergency responders: Avoid contact with skin and eyes; Wear protective clothing as per section 8
- 6.2 Environmental precautions
 - Avoid release to the environment.
 - Do not allow to enter public sewers and watercourses
 - If polluted water reaches drainage systems or water courses, immediately inform appropriate authorities
- 6.3 Methods and material for containment and cleaning up
 - Contain the spillage using bunding
 - Absorb spillage in inert material and shovel up
 - Place in appropriate container
 - Seal containers and label them
 - Remove contaminated material to safe location for subsequent disposal
 - Dispose of contents/container to an authorised waste collection point

6.4 Reference to other sections

- See section(s): 7,8&13

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
 - Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
 - Use only in well ventilated areas
 - Do not get in eyes, on skin, or on clothing.
 - Wear protective gloves
 - Wash thoroughly after use
- 7.2 Conditions for safe storage, including any incompatibilities
 - Keep only in the original container
 - Keep container tightly closed, in a cool, well ventilated place
 - Opened containers should be carefully resealed and stored in an upright position
 - Avoid freezing
 - Protect from sunlight.
- 7.3 Specific end use(s)

Curing fresh concrete and sealing existing concrete surfaces

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
 - propylene glycol; propane-1,2-diol
 - WEL (long term) 10 mg/m3 (particulates, UK)
 - WEL (long term TWA) 150 ppm 474 mg/m3 (total vapour & particulates, UK) DNEL (inhalational) 168 mg/m3 Industry, Long Term, Systemic Effects DNEL (inhalational) 10 mg/m3 Industry, Long Term, Local Effects
 - DNEL (inhalational) 50 mg/m3 Consumer, Long Term, Systemic Effects
 - DNEL (inhalational) 10 mg/m3 Consumer, Long Term, Local Effects
 - PNEC aqua (freshwater) 260 mg/l
 - PNEC aqua (intermittent releases, freshwater) 183 mg/l
 - PNEC aqua (marine water) 26 mg/l
 - PNEC (STP) 20 g/l
 - PNEC sediment (freshwater) 572 mg/kg
 - PNEC sediment (marine water) 57.2 mg/kg
 - PNEC terrestrial (soil) 50 mg/kg
 - zinc oxide

WEL (long term) 5 mg/m3 (fume or respirable dust, UK) WEL (short term) 10 mg/m3 (fume or respirable dust, UK) DNEL (inhalational) 5 mg/m3 Industry, Long Term, Systemic Effects DNEL (inhalational) 500 ug/m3 Industry, Long Term, Local Effects DNEL (dermal) 83 mg/kg (bw/day) Industry, Long Term, Local Effects DNEL (inhalational) 2.5 mg/m3 Consumer, Long Term, Systemic Effects DNEL (dermal) 83 mg/kg (bw/day) Industry, Long Term, Local Effects DNEL (dermal) 83 mg/kg (bw/day) Industry, Long Term, Systemic Effects DNEL (dermal) 830 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC (oral) 830 ug/kg (bw/day) Consumer, Long Term, Systemic Effects PNEC aqua (freshwater) 20.6 ug/l PNEC aqua (marine water) 6.1 ug/l PNEC (STP) 100 ug/l PNEC sediment (freshwater) 117.8 mg/kg PNEC sediment (marine water) 56.5 mg/kg PNEC terrestrial (soil) 35.6 mg/kg

- 2-methyl-2H-isothiazol-3-one

DNEL (inhalational) 21 ug/m3 Industry, Long Term, Local Effects DNEL (inhalational) 43 ug/m3 Industry, Acute/Short Term, Local Effects DNEL (inhalational) 21 ug/m3 Consumer, Long Term, Local Effects DNEL (inhalational) 43 ug/m3 Consumer, Acute/Short Term, Local Effects DNEL (oral) 27 ug/kg (bw/day) Consumer, Long Term, Systemic Effects

SECTION 8: Exposure controls/personal protection (....)

DNEL (oral) 53 ug/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects PNEC aqua (freshwater) 3.39 ug/l PNEC aqua (intermittent releases, freshwater) 3.39 ug/l PNEC aqua (marine water) 3.39 ug/l PNEC aqua (intermittent releases, marine water) 3.39 ug/l PNEC (STP) 230 ug/l PNEC terrestrial (soil) 47.1 ug/kg

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls should be provided to prevent the need for ventilation
- In case of inadequate ventilation wear respiratory protection.
- Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827
- Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK
- Wear suitable protective clothing
- Wear safety glasses approved to standard EN 166.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
- Use good personal hygiene practices
- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Liquid, white
- Odour: Ammonia odour
- Odour threshold: No information available
- pH:
- Melting point/freezing point: No information available

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- Initial boiling point and boiling range: > 100°C
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: Not applicable
- Vapour Pressure: No information available
- Vapour Density: No information available
- Relative Density: 1.007 g/cm3 @ 20°C
- Solubility(ies): Soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: No information available
- Decomposition temperature: No information available
- Viscosity: No information available
- Explosive Properties: Not applicable
- Oxidising properties: Not oxidising

9.2 Other information

SECTION 9: Physical and chemical properties (....)

- No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

- No hazardous reactions known if used for its intended purpose
- 10.2 Chemical stability
 - Considered stable under normal conditions
- 10.3 Possibility of hazardous reactions
 - No information available
- 10.4 Conditions to avoid
 - Avoid freezing
- 10.5 Incompatible materials
 - Considered stable under normal conditions

10.6 Hazardous decomposition products

Thermal decomposition may yield acrylic monomers

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
 Based on available data, the classification criteria are not met ATE mix (oral) > 2 000 mg/kg
 ATE mix (dermal) > 2 000 mg/kg
 ATE mix (inhal) > 20 mg/l/4h (vapours/mist)
- Skin corrosion/irritation Based on available data, the classification criteria are not met
- Serious eye damage/irritation Based on available data, the classification criteria are not met
- Respiratory or skin sensitisation H317: May cause an allergic skin reaction. Classification based on calculation and concentration thresholds
- Germ cell mutagenicity No evidence of mutagenic effects
- Carcinogenicity No evidence of carcinogenic effects
- Reproductive toxicity No evidence of reproductive effects
- 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
- Contact with eyes May cause redness and irritation
- Contact with skin May cause skin sensitisation. Stop using product if skin sensitisation occurs.

SECTION 11: Toxicological information (....)

May cause dermatitis

- Ingestion May cause gastro-intestinal irritation
- Inhalation May cause respiratory irritation

SECTION 12: Ecological information

12.1 Toxicity

- Based on available data, the classification criteria are not met
- propylene glycol; propane-1,2-diol LC50 (fish) 40.613 g/l (4 days)
 LC50 (aquatic invertebrates) 18.34 g/l (48 hr)
 EC50 (aquatic algae) 19 g/l (4 days)
- zinc oxide LC50 (fish) 112 - 8 062 ug/l (4 days) EC50 (aquatic invertebrates) 155 - 100 000 ug/l (48 hr) EC50 (aquatic algae) 690 - 4 550 ug/l (24 hr)
- 2-methyl-2H-isothiazol-3-one LC50 (fish) 4.77 - 6 g/l (4 days) EC50 (aquatic invertebrates) 1.6 mg/l (48 hr) EC50 (aquatic algae) 445 ug/l (24 hr)
- 12.2 Persistence and degradability
 - No information available
- 12.3 Bioaccumulative potential
 - No information available
- 12.4 Mobility in soil
 - No information available
- 12.5 Results of PBT and vPvB assessment
 - Not a PBT according to REACH Annex XIII
 - Not a vPvB according to REACH Annex XIII
- 12.6 Other adverse effects
 - No information available

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
 - Disposal should be in accordance with local, state or national legislation
 - Dispose of contents/container to an authorised waste collection point
 - This material and its container must be disposed of as hazardous waste
- 13.2 Classification
 - The waste must be identified according to the List of Wastes (2000/532/EC)

SECTION 14: Transport information

Not classified as hazardous for transport

14.1 UN number

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SECTION 14: Transport information (....)

- UN No.: Notapplicable
- 14.2 UN proper shipping name
 - Proper Shipping Name: Notapplicable
- 14.3 Transport hazard class(es)
 - Hazard Class: Notapplicable
- 14.4 Packing group
 - Packing Group: Notapplicable
- 14.5 Environmental hazards
 - Not applicable
- 14.6 Special precautions for user
 - No special precautions are required for this product
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
 - Not applicable
- 14.8 Road/Rail (ADR/RID)
 - Proper Shipping Name: Notapplicable
 - ADR UN No.: Not applicable
 - ADR Hazard Class: Not applicable
 - ADR Packing Group: Not applicable
 - Tunnel Code: Not applicable

14.9 Sea (IMDG)

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- Proper Shipping Name: Notapplicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Notapplicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 - This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830
 - Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe
- 15.2 Chemical safety assessment
 - A REACH chemical safety assessment has not been carried out

SECTION 16: Other information

The above information is believed to be correct but does not purport to be all inclusive and shall only be used as a guide. The company will not be held liable for any damage resulting from handling or from contact with this product.

SECTION 16: Other information (....)

Sources of data: Information from published literature and internal company data

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Sens. 1A, H317: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H301: Toxic if swallowed
- H311: Toxic in contact with skin
- H314: Causes severe skin burns and eye damage
- H317: May cause an allergic skin reaction.
- H330: Fatal if inhaled.
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects
- EUH071: Corrosive to the respiratory tract

Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEL: No observed adverse effect level
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- STOT RE: Specific Target Organ Toxicity Repeated Exposure
- STOT SE: Specific Target Organ Toxicity Single Exposure
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit
 - --- end of safety datasheet ---