MATERIAL SAFETY DATA SHEET: PENETRATING SEALER

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name
JESMONITE PENETRATING SEALER

Application of Product:
BUILDING PROTECT AGENT/SOLVENT

Company Address:

Jesmonite Limited. Challenge Court, Bishop's Castle, Shropshire, SY9 5DW

Information in case of emergency:
Tel:+44 (0) 1588 630302 Fax:+44 (0) 1588 630304 Web: www.jesmonite.co.uk Email: sales@jesmonite.co.uk

2. COMPOSITION / INFORMATION ON COMPONENTS

Compostion/Preparation 1.
Chemical Nature/: **80-85%** Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% 55-100%
Charecterization **(CAS No: EC No: 927-285-2 Reg Number: 01-2119480162-45-xxxx)**

Classification (EC 1272/2008)
EUH066
Asp. Tox. 1 - H304

Classification (67/548/EEC)
Xn; R65
R66.

Composition comments:
Benzene may be present but always below 0.1%

Compostion/Preparation 2.
Chemical Nature/ Charecterization **15-20%** Alkoxy silanes + siloxane + solvent

Hazardous ingredients:

Type	CAS No.	EC-No. Reach No.	Material	Content%	Classfication	Comment
INHA	64741-65-7	265-067-2 01-2119472146-39	naphtha, heavy	>30 - >40	Xn; R65-66-53 Asp. Tox. 1; H304 Aquatic Chronic 4; H413 Flam. Liq. 3; H226 EUH066	[1]
INHA	90622-58-5	292-460-6 01-2119456810-40	C11 - C15 Isoalkanes	<10	Xn; R65-66 Asp. Tox. 1; H304 EUH066	[1]
INHA	5593-70-4	227-006-8	Titanium tetrabuletanolate	<2	Xi; R10-38-41 Skin Irrit. 2; H315 Flam. Liq 3; H226 Eye Dam. 1; H318	[1]
VERU	67-56-1	200-659-6	Methonal	<0.2	F,T; R11-23/24/25-39/23/24/25 Flam. Liq. 2; H225 Acute Tox. 3 oral; H301 Acute Tox. 3 dermal; inhalation; H311 Acute Tox. 3 by inhalation; H331 STOT SE1; H370	[1]

Type: INHA: ingredient, VERU: Impurity

REACH registered substances may be included as impurities. These do not necessarily require identified uses and exposure scenarios in the safety data sheet.
[1] = Hazardous or environmentally harmful substance; [2] = Substance with a communicty workplace exposure limit; [3] = PBT

substance; [4] = vPvB substance; [5] = SVHC-candidate (substance of very high concern).
*classification codes are explained in section 16
Hydrocarbon mixtures were classified in accordance with the applicable notes in Annex VI of regulation (EC) No. 1272/2008.

3. HAZARDS IDENTIFICATION

2.1 Classfication of the substance of mixture

Classification (EC 1272/2008)

Physical and chemical hazards	Not classified
Human Health	EU066;Asp. Tox. 1 - H304
Environment	Not classified

Classification (1999/45/EEC)

Physical and Chemical Hazards

Vapours are heavier than air and may travel and may travel along the floor and in the bottom of containers

Classfication (GHS)

Class	Category
Hazardous the the aquatic environment	Chronic, Category 4
Aspiration hazard	Category 1
Serious eye damage/eye irritation	Category 2A
Flammable Liquids	Category 3

Classfication (67/548/EEC, 1999/45/EC):

R-Phrase	Description
R10	Flammable
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking.
R53	May cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Contains HYDROCARBONS, C11 - C14, ISOALKANES, CYCLICS, <2% AROMATICS

Label in accordance with (EC) No 1272/2008
Labelling (GHS)
Signal word: Danger

H-Code	Hazard Statements
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation
H413	May cause long lasting harmful effects to aquatic life
P-Code	
P210	Keep away from heat/sparks/open flames/hot surfaces. - NO smoking
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	If SWALLOWED: immediately call a POISON CENTRE or Doctor
P331	Do NOT induce vomiting
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. continue rinsing.
P337+P313	If eye irritation perists: Get medical advice/attention
P370+P378	In case of fire: Use extinguishing powder, foram or carbon dioxide for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store Locked up
P501	Dispose of contents/container to waste disposal.

Special identification instructions:

EU066: Repeated exposure may cause skin dryness or cracking.

Hazard ingredients (labelling)

Naphtha, heavy

Labelling (67/548/EEC, 1999/45/EC):

Xn **Harmful**

R-Phrase	Decription
R10	Flammable
R65	Harmful:May cause lung damage if swalled
R66	Repeated exposure may cause skin dryness or cracking

R53 May cause long-term adverse effects in the aquatic environment.
S-Phrase
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or lable

Hazard ingredients (labelling EC):
naphtha, heavy

2.3 Other hazards

Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable

4. FIRST AID MEASURES

General information: Remove victim immediately from source of exposure. Provide fresh air, warmth and rest, preferable in comfortable upright sitting position Perform artificial respiration if breathing has stopeed. Do not give victim anything to drink if they are unconscious.

Inhalation: Keep patient calm and move to fresh air. If unconscious peform artificial respiration and place in sideways (recovery) position. Seek medical attention if any discomfort continues.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Seek medical attention if discomfort persists.

Ingestion: Immediately rinse mouth and provide fresh air. Get medical attention immediately! Do not induce vomiting. If vomiting occurs the head should be kept low so that stomach vomit doesn't enter the lungs. Never give liquid to an unconscious person. When risk of unconsciousness, place and transport the victim in secured side (recovery) position.

Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section

Indication of any immediate medical attention and special treatment needed.

Do not induce vomiting. Danger of aspiration. Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, inclduing blindness (irreversible damage to the optic nerve), acidosis, spsams, narcosis and coma. There may be a delay in the onset of these effects after exposure. Further toxicology information in section 11 must be observed.

5. FIRE FIGHTING MEASURES

Extinguishing Media Suitable: Foam, carbon dioxide, dry powder or water mist/fog

Not Suitable: Water-jet, as this will spread fire.

Special hazards arising from the substance or mixture:

Unusual Fire & Explosion Hazards: Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground to sources of ignition and flash back. Solvent vapours may form explosive mixtures with air. Vapours may ignite.

Specific hazards: The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures. Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO), Carbon dioxide (CO2). Vapours may form explosive air mixtures even at room temperature. Vapours may be ignited by a spark, a hot surface or an ember.

Special Fire Fighting Procedures: Keep up-wind to avoid fumes. If possible, fight fire from protected position. Move container from firearea if it can be done without risk. Use supplied air respirator if product is involved in a fire. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream; as will scatter and spread fire.

Product equipment for fire-fighters: Self contained breathing apparatus and full protective clothing must be worn in case fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protective clothing as described in Section 8 of this safety data sheet. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. In case of inadequate ventilation, use respiratory protection. Take precautionary measures against static discharges. Do not smoke, use open fire or other sources of ignition. Do not breathe vapour. Eye contact MUST be prevented by means of suitable personal protection equipment.

Environemental precautions

Do not discharge onto the ground or into water courses. Do not allow ANY environmental contamination. Never use water by itself on spillage; this will spread the spill and cause further contamination. Spillages or uncontrolled discharges into watercourses must IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up

If leakage cannot be stopped, evacuate area. Clean-up personnel should use respirator/and/or liquid contact protection. Inform the authorities if large amounts involved. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented. Protect electric equipment against sparking in case of risk of explosion. Do not eat, drink or smoke when using this product. Flushing, run-off or release into water courses (surface water, sewage and waterways) is forbidden.

Reference to other sections:
Relevant information in other sections have to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13)

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Avoid spilling, skin and eye contact. Ensure adequate ventilation. Must be syphoned in situ. Ensure adequate ventilation. Storage tanks/containers must be grounded. Protect electrical equipment against sparking in case of risk of explosion. Eliminate all sources of ignition. Wear full protective clothing for prolonged exposure and/or high concentrations. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatabilities

Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep away from food, drink and animal feeding stuffs. Flammable/combustible - keep away from oxidisers, heat and flames. Observe local/national regulations. Minimum temperature allowed in storage and transportation 10°C.

Storage class: Miscellaneous hazardous material storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:

Maximum airborne concentrations at the workplace:

CAS No.	Material	Type	mg/m3	ppm
	Aerosol - respirable fraction		10	
67-56-1	Methanol	OEL	226.0	200.0
34590-94-8	Dipropyleneglycol methylether	EU	308.0	50.0

The aerosol limit specified is a recommendation should aerosol be formed during processing. (2-methoxymethylethoxy)) propanol (CASno. 34590-94-8): the substance can be absorbed by the skin.

exposure controls.

General protection and hygiene measures: Do not eat, drink or smoke when handling. Avoid contact with eyes and skin. Do not inhale gasees/vapours/aerosols.

Exposure to the environment limited and controlled: Prevent material from entering surface waters, drains or sewers and soil. Do not introduce large amounts into purification plants.

Personal protective equipment:

Hand protection: Protective gloves must be worn if there is a risk of direct contact or splash. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Manufactured/Tested in accordance with EN374.

Respiratory equipment: If ventilation is insufficient, suitable respiratory protection must be provided. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Check that mask fits tight and change filter regularly.

Eye protection: Wear protective goggles. Manufactured in accordance with EN 166

Other protection: Use barrier creams to prevent skin contact. Provide eyewash station and safety shower. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures: Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contanminated. Promptly remove any clothing that becomes wet or contaminated. Easting, smoking and water fountains prohibitied in immediate work area. DO NOT SMOKE IN WORK AREA!

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical form/appearance:	Clear liquid
Colour	Clourless to pale yellow.
Odour	Slight odour hydrocarbon, solvent like
pH	Not applicable
Specific temperatures	
Boiling point	> 150 - < 240 °C
Flammability characteristics	
Flashpoint	43°C
Ignition temp	232°C
Flammability limit - Lower(%)	0.5
Flammability limit - Upper(%)	5
Vapour pressure	0.035 kPa 20
Viscosity	0.015 cm2/s
Relative density	0.78 15
Specific gravity	1130 kg/m3 at 25°C.
Solubility	
- in water	insoluable in water

10. STABILITY AND REACTIVITY

Reactivity, Chemical stability; Possibility of hazardous reactions.

If stored and handled in accordance with standard industrial proactices no hazardous reactions are known.

Stable under normal temperature conditions and recommended use.

Hazardous Polymerisation: Will not polymerise.

Conditions to avoid: Moisture, Heat, Flames and othe sources of ignition.

Incompatible materials: Reacts slowly with water: Reaction causes the formation of: methanol

materials to avoid: Strong oxidising substances.

Hazardous decomposition products: None known at ambient temperatures. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours, Aldehydes, Hydrocarbons.

The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150°C (320°F) through oxidation. By hydrolysis: methanol

11. TOXILOGICAL INFORMATION

Toxicological information:

ASPIRATION HAZARD - DO NOT BREATH VAPOUR OR SPRAY. May cause lung damage if material gets into the lungs after accidental swallowing or vomiting of ingested material.

Acute toxicity: (Oral LD50) >5000 mg/kg RAT

Acute toxicity: (Dermal LD50) >3000 mg/kg RAT

Acute toxicity: (Inhalation LC50) >5000 mg/kg RAT

Skin Corrosion/Irritation: For this endpoint no toxilogical test data is available for this product.

Serious eye damage/irritation: For the endpoint no toxilogical test data is available for this product.

Respiratory or skin sensisitisation: Not sensitising.

Germ cell mutagenicity: Negative. Negative.

Specific target organ toxicity - repeated exposure: STOT - Repeated exposure

NOAEL >= 5000 mg/kg Oral Rat

Aspiration hazard - May be fatal if swallowed.

General information: -Prolonged and repeated contact solvents over a longperiod maylead to permanent health problems.

Inhalation: Droplets of the product aspirated into the lungs through ingestions or vomiting may cause a serious chemical pneumonia.

Ingestion: Harmful: May cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: Irritation of eyes and mucous membrances.

Health warnings: Prolonged or repeated contact leads to drying of skin. Prolonged and repeated contacts with solvents over a long period may lead to permanent health problems.

Products of hydrolysis: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritaition of the muscosa, as well as nausea, vomiting heachaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. The may be a delay in the onset of these effects after exposure.

Specific effects: Prolonged or frequent inhalation of vapours in high concentrations may cuase permanent damage to the nervous system, **including the brain.**

12. ECOLOGICAL INFORMATION

Toxicity: Organic Solvent(s): May cause long-term effects in the aquatic environment.

Acute toxicity - Fish 96 hours >1000mg/l

Acute toxicity - Aquatic invertebrates 48 hours >1000 mg/l daphnia magna

Acute toxicity - Aquatic plants 72 hours > 1000mg/l

Persistence and degradability Assessment: Silicone element: biologically not degradable: Elimination by adsorption to activated sludge. The product of hydrolysis (methanol)

Bioaccumulative potential: No data known

Mobility in soil: This product has only slight mobility in soil. The product is insoluble in water.

Results of PBT and vPvB assessment: Substance characteristics do not meeting screening criteria.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

General information: Do not puncture or incinerate, even when empty. Waste, residue, empty containers, discarded work clothes and used dispsable towels must be collected in disignated receptacles, labelled with content.

Observe local/national regulations

Waste treatment methods: Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements. Confirm disposal procedures with environmental engineer and local regulations.

Waste Class: EWC NUMBER: Allocation of a waste code number in accordance with the Eurpean Waste Catalogue, should be carried out in agreement with an EA authorised waste disposal company. The classification of the product may meet the criteria for hazardous waste.

14. TRANSPORT INFORMATION

Road ADR:

Valuation:	Dangerous Goods
UN no:	1993
Proper Shipping Name:	Entzünbarer flüssiger Stoff, n.a.g…(Enthält Trimethoxy (2,4,4-tremethylpentyl)silan und Isoparaffine)
Class	3
Packaging Group	III

Railway RID:

Valuation:	Dangerous Goods
UN no:	1993
Proper Shipping Name:	Entzünbarer flüssiger Stoff, n.a.g…(Enthält Trimethoxy (2,4,4-tremethylpentyl)silan und Isoparaffine)
Class	3
Packaging Group	III

Transport by sea IMDG-Code:

Valuation:	Dangerous Goods
UN no.	1993
Proper Shipping Name	Flammable liquid, n.o.s. (Contains Trimethoxly (2,4,4-trimethypenty)silane and Isoparaffins).
Class	3
Packaging Group	III

Air Transport ICAO-TA/IATA-DGR:

Valuation:	Dangerous Goods
UN no.	1993
Proper Shipping Name:	Flammable liquid, n.o.s. (Contains Trimethoxly (2,4,4-trimethypenty)silane and Isoparaffins).
Class	3
Packaging Group	III

Environmental Hazards

Hazardous to the environment: no Marine Pollutant (IMDG): no

Special precautions for user

Relevant information in other sections have to be considered.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk transport in tankers is not intended.

15. REGULATORY INFORMATION

General Information: Only trained personnel should use this material.

Information Sources: Chemicals (Hazard Information & Packaging) Regulations.
National and local regulations must be observed.

For information on lagbelling pleae refer to section 2 of this document.

Relevant regulations:

SI 2002/1689: CHIP Regulations 2002

SI 2002/1689: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999
Health & Safety at Work Act 1974
SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.
Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.
Guidance Notes: Workplace Exposure Limits EH40
EU Legislation: Regulation (EC) No 1907/2006 REACH, Regulation (EC) No 1272/2008 CLP.
Chemical Safety Assessment: A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.
Other international regulations:
Listed on or in accorance with the following inventories.
EINECS - Europe
PICCS - Philippines
TSCA - USA

16. OTHER INFORMATION

General Information: Only trained personnel should use this material.

Further Information:
Explanation of the GHS classification code:

Asp. Tox. 1: H304 Aspiration hazard Category 1; May be fatal if swallowed and enters airways.
Aquatic Chronic 4; H413 Hazardous to the aquatic environment chronic, category 4; May cause long lasting harmful effects to aquatic life.
Flam. Liq. 3 H226 Flammable liquids Catergory 3, Flammable liquid and vapour.
EUH066 Repeated exposure may cause skin dryness or cracking
Asp Tox. 1: H304 Aspiration Category 1; May be fatal if swallowed and enters airways
EUH066 Repeated exposure may cause skin dryness or cracking
Skin Irrit. 2: H315 Skin corrosion/irritation Category 2; Causes skin irritation
Flam. Liq. 3 H226 Flammable liquids Catergory 3, Flammable liquid and vapour.

Eye Dam. 1; H318 Serious eye damage/eye irritation Category 1; Causes serious eye damage.
Flam. Liq. 3 H225 Flammable liquids Catergory 2, Highly flammable liquid and vapour.
Acute Tox. 3; H301 Acute toxicity 3; Toxic if swallowed.
Acute Tox 3; H311 Acute toxicity 3; Toxic in contact with skin
Acute Tox. 3; H331 Acute toxicity 3; Toxic if inhaled.
STOT SE 1; H370 Specific target organ toxicity (single exposure) Category 1; Causes damage to organs.

R-Phrase	Description
R65 R66 R53	Harmful: May cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking. May cause long-term adverse effects in the aquatic environment.
R65 R66	Harmful: May cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking.
R10 R38 R41	Flammable. Irritating to skin. Risk of serious damage to eyes.
R11 R23/24/25 R39/23/24/25	Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

If you have any queries relating to this MSDS, it's contents or any other product safety related questions, please write to the following email address. Sales@jesmonite.co.uk

The data contained in this safety data sheet are based on our current knowledge and experience and describe the prodcut only with regard to safety requirements. The data do not describe the product's properties(product

specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.