

MSP Coatings

Original Issue date: September 2009

Material Data Safety Sheet

1. IDENTIFICATION

Product name

Application Supplier Telephone Fax Emergency Telephone FlexiStop oof Coating System.

Roof Coating System. MSP Coatings Ltd Liosban Estate, Galway. 091 445544 091 445444 0877793527 (office hours only)

2. HAZARD IDENTIFICATION

May cause sensitisation by skin contact. Classification (1999/45): R43.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	Con. Range (%)	Symbol	R-phrase (No.)*	EINECS No.	CAS No.
METHYL-0-0'00″-BUTAN-2- ONE-TRIOXIMOSILANE	1-5%	Xi	R36/38, R43	245-366-4	22984-54-9
BUTANONE OXIME VINYL SILANE	1-5%	Xi	R36/38, R41, R43	218-747-8	2224-33-1

The Full text for all R Phrases are displayed in Section 16

Composition comments: Polydimethylsiloxane with fillers, auxillaries

4. FIRST AID MEASURES

General	In all cases of doubt, or if symptoms persist seek medical attention.
	Never give anything by mouth to an unconscious person
Eye contact	Remove any contact lenses before rinsing. Promptly wash eyes with
	plenty of water while lifting the eye lids. Continue to rinse for at
	least 15 minutes. If irritation persists seek medical advice
Skin contact	Remove from the source of contamination and remove
	contaminated clothing. Wash skin immediately with soap and water
Inhalation	Move the exposed person to fresh air at once. Get medical attention
	if any discomfort persists.
Swallowing	Immediately rinse month and provide fresh air. Do not induce
	vomiting. Obtain medical advice immediately



MSDS EN 03/Version 2

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5. FIRE FIGHTING MEASURES

Surface spread of flame- FlexiStop will not support combustion. When tested in accordance with BS 476: part 3 1958 it achieved the designation of EXT.F.AB. Indicates a specimen that was not penetrated within one hour when exposed to direct flame.

Extinguishing media: ... Water spray, Foam, CO₂ or Dry Powder.

6. ACCIDENTAL RELEASE

In case of spills, beware of slippery floors and surfaces. Wear appropriate protective clothing.

Absorb in vermiculite, dry sand or earth and place into containers.

7. HANDLING AND STORAGE

Avoid spilling, skin and eye contact.

Provide good ventilation.

Store in tightly closed original container in a dry cool place. Keep in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION



Ensure adequate ventilation especially in confined areas.

Hand protection	Use protective gloves.
Eye protection Hygienic work practices	Wear approved safety goggles. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Grey Liquid
Appearance	Grey Liquiu
Odour	Mild (or faint)
Relative Density	1.0 g/ml at 20°C
Viscosity	<4000 Ps @ 20°C
Solubility	Insoluble in water
Auto ignition	~400 [°] C
Flash point	Above 64°C



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10. STABILITY AND REACTIVITY

Stable under normal temperature conditions. Avoid excessive heat for prolonged periods of time. Hazard decomposition products – Not known.

11. TOXICOLOGICAL INFORMATION

Toxic Dose 1 – LD 50:	Not Determined
Inhalation	No specific health warnings noted
Skin contact	May cause sensitisation by skin contact.
Eye contact	May cause irritation to eyes.
Ingestion	May cause lung damage if swallowed.

Moisture curing process releases a small amount of butanone-2-oxime (MEKO) which can irritate skin and mucous membranes.

12. ECOLOGICAL INFORMATION

Not regarded as dangerous for the environment.

FlexiStop has been subjected to BS6920 Test On Effect of Water Quality, producing satisfactory results for all five leaching tests.

LC 50, 96 hrs, FISH mg/l Not determined EC 50, 48 hrs, DAPHINA mg/l Not determined IC 50, 72 hrs, ALGAE mg/l Not determined

Mobility	Mobile
Bioaccumulation	No data available
Degradability	Not degradable
Acute Fish Toxicity	Toxicity to fish is improbable

13. DISPOSAL CONSIDERATIONS

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)



15. REGULATORY INFORMATION

Labelling:



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Contains: METHYL-0-0'00"-BUTAN-2-ONE-TRIOXIMOSILANE, BUTANONE OXIME VINYL SILANE

R – Phrase R43 May cause sensitization by skin contact

S – Phrase S24 Avoid contact with skin

S37 Wear suitable gloves

S60 This material and its container must be disposed of as hazardous waste.

Statutory Instruments

Chemical (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG (108)

16. Other Information

R. Phrase	
36/38	Irritating to eyes and skin.
41	Risk or serious damage to eyes.
43	May cause sensitisation by skin contact.

For additional information regarding this product see the product data sheet and label or contact the supplier.

The information provided in this data sheet is provided in accordance with the requirements of the CHIP Regulations.

The user is responsible for ensuring that the relevant legislative requirements are observed.

The information given is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as a guarantee of technical performance or suitability for a particular application. Application of the product for a particular purpose is the responsibility of the end user to have conducted adequate testing prior to final application.



- Waterproof roof coating system that when cured forms a seamless permanent elastic waterproof coating with a 35 year life expectancy.
- Excellent UV resistance, along with excellent resistance to dilute acids and alkalis.
- Permeable but fully water repellent. Non-hydroscopic and does not support fungal growth.
- Tested to BS6920 Test On Effect Of Water Quality producing satisfactory results for all five leaching tests.

INSTRUCTIONS FOR USE

FlexiStop comprises of two components. One part Silicone compound and if needed a non woven needled polyester fleece. When laid the fleece is fully embedded within the compound. When cured forms a 2-3mm thick fully adhered seamless waterproof skin.

Surface Preparation:

Surface must be dry before application.....

Brush off all dust and loose materials and remove any oil and grease with xylene. When preparing to cover existing felt roofing, remove any projecting pieces of felt to give a flat surface. <u>Tightly closed cracks</u> – ignore <u>2mm wide or more</u> – use tape to bridge the gap to temporarily support until cured. <u>Construction joints</u> – use tape to bridge the gap to temporarily support. This allows for expansion and contraction.

Application:

Apply by brush or roller

Method

Application temperature 5-35°C. An initial treatment of silicone compound is uniformly applied at approx 1-2mts per Litre depending on substrate. Embed the fleece if needed into the wet coating and roll with a spiked roller to further embed and remove any air pockets.

Coat the fleece with the silicone compound.

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This procedure is repeated at a rate to suit the operatives (1-6 metres at a time). Then left to cure.

Where vertical surfaces exceed 300mm in height, upvc clamping strips with stainless steel fixings are introduced to temporarily hold the membrane in place until it has cured. Each strip is covered by the next layer of membrane bonded to it.

Once container is open use within 2 hours. If a container is not completely used the lid must be quickly and tightly re fitted. When reopened check and remove any surface skin before use.



Cleaning of Plant & Equipment.

Must be carried out away from the working area in well ventilated space as it involves the use of solvents. A tray is required in which to stand a receiving container with a generous area surrounding it to catch splashes and spillages.

Guidelines

Supplied in 5 and 25 litre tins Black or Grey Liquid In-service working temperature range of -60°C to + 200°C Contains METHYL-0-0'00"-BUTAN-2-ONE-TRIOXIMOSILANE

Precautions

Gloves. Safety glasses in case of splashes.

Storage

Store at room temperature in original closed container.

Shelf life

Approximately 12 months in un opened container.

Marking

Classified as Irritant – May cause sensitisation by skin contact. Not classified as dangerous. Not classified in ADR or IMDG.





PRODUCT BENEFITS

- Liquid coating system which can be used with a non-woven polyester fleece reinforcing membrane within it when extra strength is needed within the finished membrane.
- When applied the system cures to form a tightly adherent, seamless permanently elastic waterproof skin, following the most complicated and irregular surface contours.
- The "in service" working temperature range is -60°C to +200°C. It is thermally stable throughout this range retaining all of its properties 100%. Whilst most water proof membranes soften at high temperatures and stiffen at low temperatures, FlexiStop remains persistently pliable and supple.
- Excellent UV resistance properties basically unaffected.
- Excellent resistance to dilute acid and alkalis. It is ideal in dense areas where the air can be heavily contaminated.
- Permeability FlexiStop is 10 times more vapour permeable then most other high tech membranes and 100 times more than bitumen based products. Yet FlexiStop is fully water repellent.
- Non-hygroscopic and will not support fungal growth.
- Extremely high fatigue resistance.
- Surface Spread of Flame FlexiStop will not support combustion. It will burn when subject to intense heat, but will cease burning when the heat is removed. When tested in accordance with BS 476: Part 3 1958 achieved the designation of EXT.F.AB.
- Solvent and Halogen free and environmentally friendly.
- Whilst FlexiStop will adhere to virtually all known substrates, the quality of the substrate will not affect the system. It is very strong and its strength is independent of the substrate.
- Very high stress absorbing characteristics and excellent recovery.
- FlexiStop has been subjected to BS6920 Test On Effect Of Water Quality, producing satisfactory results for all five leaching tests (water can be used for drinking purposes).

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WE'VE GOT IT COVERED

MSP Coatings LTD



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DETERIORATION OF SEALANTS ON FLAT ROOFS, IN ROOF GULLEYS AND DUCTS AND HOW TO PREVENT THIS HAPPENING

Whether a gulley or duct is sealed with a preformed membrane, torch-on felt, or an applied liquid membrane it is presented with one major challenge: the effects of weather, not only on the coating but on the substrate to which it is applied; the roof itself.

Regardless of the composition of the roof it will react to extremes in temperatures: expanding in heat and contracting in cold. There is nothing the applied membrane can do to prevent this.

Where a membrane or felt has been cut into pre-ordained sizes and shapes and then "welded" together to form one discrete seal it is then subject to the climate-caused movement in the very structure to which it has been applied. All pre-formed sheeting which comprises the gulley or duct will begin to "stretch" or "squeeze" the sealant applied to it, eventually causing "welded" seams to burst and crack, and fissures to appear in cured rigid liquid membranes.

FlexiStop, on the other hand, never goes rigid, but remains completely supple and flexible in temperatures as high as $+200^{\circ}$ Celsius and as low as -60° Celsius.

(The most extreme temperatures experienced in Western Europe would never reach these values: in Athens, temperatures of +48^o Celsius were recorded on July 10th, 1977; in Kittala, Lapland, temperatures of -51.5^o Celsius were recorded on January 28th, 1999.

The highest temperature ever recorded in Ireland was 33.3^o Celsius, in Kilkenny Castle, in 1887; the lowest was -19.1^o Celsius in Markree Castle, Sligo, in 1881.)

FlexiStop will move and "flow" with the building and substrate it has been applied to, regardless of weather conditions, and the manufacturer guarantees that it will do so for a minimum of 35 years.

Consequently, once applied correctly to a gulley, duct, or any kind of roofing situation it will cure in approximately four hours, remaining leak proof and fully vapour permeable (10 times more so than most hi-tech preformed membranes and 100 times more so than bitumen based sealants). None of the problems associated with temperature enforced movements will affect is performance.

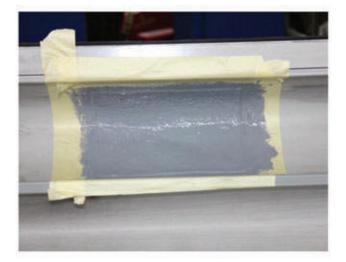
In the following document, the "bellows" connecting two railway carriages, made of a very heavy fabric, has been torn. Rather than replacing it, it has been repaired using a coat of FlexiStop applied below and on top of a non-woven polyester fleece. This will now allow the bellows to expand and contract, like an accordion, many thousands of times on each and every train journey. FlexiStop remains supple and flexible throughout!

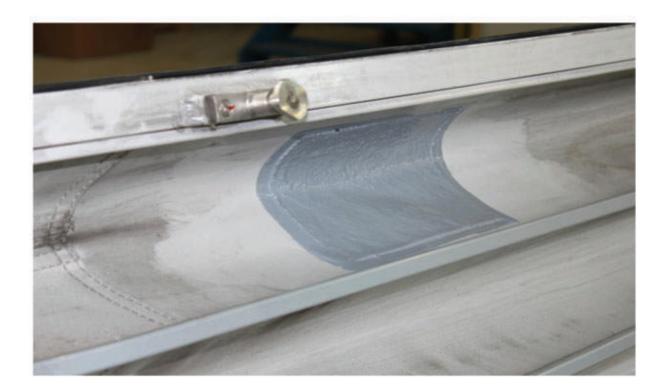
www.mspcoatings.ie email info@m.s.p.coatings.ie











Company No. 632586 VAT IE3579246TH



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