

MetalSafe B-300®

METAL CORROSION PROTECTION

Liquid Rubber MetalSafe B-300® is an elastomeric type coating that provides exceptional corrosion protection for a variety of metal surfaces. Liquid Rubber MetalSafe B-300® provides chemical and abrasion resistance in an instant setting flexible membrane that resists cracking, aging and delamination.

Liquid Rubber MetalSafe B-300® is used to protect ferrous metal structures subjected to water or chemically aggressive environments. Applications include storage and process tanks, piping and structural features in; mining and ore extraction facilities, fertilizer plants, water treatment plants, desalination plants, chemical processing facilities, pulp mills and power plants.

Liquid Rubber MetalSafe B-300® is an environmentally and workplace safe alternative to conventional epoxy, urethane or solvent based protective coatings. Liquid Rubber MetalSafe B-300® is unaffected by a range of acids, alkalis and waterborne salts. Unlike many other protective coatings MetalSafe B-300® can be applied directly over lightly rusted metal.

- FREE OF FLAMMABLE SOLVENTS
- NON-TOXIC
- NO VOC'S
- LOW ODOUR & WATER BASED

PHYSICAL PROPERTIES (Liquid)	
PROPERTY	TYPICAL RESULTS
Colour	Brown to black
Specific gravity (liquid) g/cm ³	Approx. 1.0
Odour	None
Volatile Organic Compound	Contains no solvents
% solids (wt)	60 - 63%
Viscosity (sec)	18 - 30
pH	10 - 12

PERFORMANCE DATA (Cured membrane)	
PROPERTY	TYPICAL RESULTS
Colour	Black
Specific gravity, g/cm ³	Approx. 1.0
Chemical resistance ASTM G 20	Resists salt water and most inorganic solutions
Accelerated Weathering (Xenon arc) ASTM G 155, 250 hrs	No deterioration of the film, >90% retention of original tensile strength
Tensile Strength ASTM D 412, Kpa (psi)	>830 (>120)
Elongation, %	>950%
Recovery ASTM D 412, %	>90%
Adhesion to concrete DeFelsco, kPa (psi)	>900 (>130), cohesive failure
Low temperature mandrel -10°C	Passed
Hardness, Durometer 00	83 - 85
Hardness, Shore A	18 - 20
Hardness, Shore D	3 - 4
Adhesion to concrete DeFelsco, kpa (psi)	>1200 (>170)
Adhesion to concrete ASTM C836 N/m (lb/in)	260 (15)
Puncture resistance CGSB 37-GP-56	Passed (no punctures)
Sag flow	None
Blistering ASTM D 714, 1000 hrs exposure	None
Salt fog corrosion ASTM B 117-97, 1000 hrs	Passed (no creep back)
Abrasion resistance ASTM F 1677	Good - very good
Water vapor permeance ASTM E96 ng/Pa.s.m ² (gr/h-ft ²)	4.99 (0.25)
Permeability ASTM E 96, ng/m/Pa/s	0.071
Air permeance ASTM E 2178, L/s.m ²	0.0004
Permeability methane ASTM D1434-82, cm ² /sec/atm	1.88 x 10 ⁻⁸
Thermal resistance ASTM C518-04 (2.66/ply)	0.028
UL fire ratings (ballasted)	Class A

APPLICATION

Liquid Rubber MetalSafe B-300® is an instant setting coating applied as a dual component system with an inorganic salt solution using a specially designed air-less spray system. Both components of this system are water based and environmentally safe.

Liquid Rubber MetalSafe B-300® can be applied to lightly rusted metal, saving the time and expense of grinding surfaces to bare metal. Surfaces should be water-blasted or sandblasted prior to application and the surface should be dry, free of dirt, debris, oil or grease. Liquid Rubber MetalSafe B-300® should not be applied when the ambient temperature is below 5°C, or if rain is expected within 24 hrs of application. Liquid Rubber MetalSafe B-300®, applied as an interior tank liner cures best under controlled humidity and a portable de-humidifier unit may be required to assist in the curing process.

Liquid Rubber MetalSafe B-300® is to be applied between 0.4-1.5 m²/litre depending on the required membrane thickness. For best results apply in thin coats. MetalSafe B-300® is non-tacky to the touch in one minute and is largely cured within 48 hrs. The final cured properties may, however, not be realized for 7 days. Where Liquid Rubber MetalSafe B-300® is applied as an interior tank liner allow a minimum of 7 days prior to re-commissioning the tank.

LIMITATIONS

Liquid Rubber MetalSafe B-300® should not be applied when the ambient temperature is below 5°C. The uncured membrane may be damaged if frozen. Do not apply to wet or frozen surfaces or directly prior to rain. Some surface base coat materials such as coal tar are unsuitable for use with Liquid Rubber MetalSafe B-300®. Please consult technical service with any questions.

CAUTION

For industrial use only. Keep out of reach of children. Avoid storage below 5°C. Please consult the Material Safety Data Sheet before using Liquid Rubber MetalSafe B-300®.

Liquid Rubber MetalSafe B-300® is mildly alkaline and is not recommended for aluminum surfaces. When applying this product observe normal safety precautions, wear gloves, eye protection and other suitable protective equipment. For further information please consult the product MSDS.

TECHNICAL SERVICE

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COVERAGE				
Cured Membrane		Coverage		
Mils	mm	ft ² /gal	ft ² /litre	m ² /litre
40	1.00	30	7.93	0.74
80	2.00	15	3.96	0.37
120	3.00	10	2.64	0.24

MSDS MATERIAL SAFETY DATA SHEET**SECTION 1 MATERIAL IDENTIFICATION****TRADE NAME:** LIQUID RUBBER MetalSafe B-300[®] **MATERIAL USE:** Protective Coating**CHEMICAL FAMILY:** Water suspension of petroleum derived hydrocarbons (polymer modified emulsified asphalt) and inert fillers.**T.D.G. CLASSIFICATION:** NON REGULATED**WHIMIS CLASSIFICATION:** NON REGULATED**SECTION II COMPOSITION, INFORMATION ON INGREDIENTS**

COMPONENT	CAS#	% (BY MASS)	LC50 (ppm) (rat inhal)	LD50 (mg/kg) (rat oral)
Complex mixture of bitumens	9072-35-9	40-70	n/a	n/a
Anionic surfactants	143-19-1	0.5-2.0	n/a	n/a
Water	7732-18-5	30-60	n/a	n/a
Polymer dispersion	9010-98-4	5-25		

SECTION III PHYSICAL PROPERTIES**Odour and appearance:** Brown liquid, slight resinous odour. - **Odour threshold:** n/a - **Specific gravity:** 1.00 (approx.)**Coefficient of water/oil distribution:** n/a - **Vapour pressure (mm Hg):** 17 @20°C (water) - **Boiling point:** 100°C (water) - **Freezing point:** 0°C**pH:** 7-13 - **Vapour density (air = 1):** >1 - **Evaporation rate (nBuAcetate = 1):** <1 - **Volatiles %:** 40-60 (water) - **Solubility in water:** partially soluble**SECTION IV FIRE & EXPLOSION DATA****Means of extinction:** n/a - **Sensitivity to mechanical impact/static discharge:** n/a - **Flash point (method):** n/a (non-combustible)**Upper flammable limits % :** n/a - **Lower flammable limits % :** n/a - **Auto-ignition temperature:** n/a - **Special fire fighting instructions:** n/a**Unusual fire and explosion hazards:** Product will not burn but may splatter if temperature exceeds the boiling point of water.**SECTION V REACTIVITY DATA****Chemical stability:** Stable - **Incompatible materials:** Will react with alkaline sensitive materials such as acids and certain metals. Do not store in aluminum containers or mix with aluminum implements.**Hazardous decomposition products:** Avoid heating above 200°C. At elevated temperatures hazardous vapours can be released, including carbon monoxide, hydrogen chloride, organic acids and aldehydes. - **Hazardous polymerization:** Will not occur.**SECTION VI HEALTH INFORMATION****Exposure limit:** n/a - **Inhalation:** n/a - **Skin:** Adhesion - **Eyes:** Adhesion, irritation. - **Ingestion:** Blockage of digestive and/or respiratory tract.**Chronic effects:** n/a**EMERGENCY AND FIRST AID PROCEDURES****Inhalation:** n/a**Skin:** This is an alkaline product. If splashed on the skin immediately wash thoroughly with fresh water. If the product has dried on the skin massage the area with medical grade mineral oil, baby oil or edible oil, then wash with soap and water. If irritation persists seek medical attention.**- Eyes:** Flush thoroughly with fresh water for at least ten minutes. Seek medical attention.**Ingestion:** DO NOT INDUCE VOMITING. Seek medical attention.**SECTION VII SPILL PROCEDURES****In the event of a spill:** Dike and contain, transfer to containers for recovery or disposal. Keep out of sewers.**Waste disposal method:** Follow federal, provincial and local regulations regarding disposal.**SECTION VIII SPECIAL PROTECTION****Respiratory protection:** n/a - **Ventilation:** n/a - **Protective gloves:** Recommended - **Eye protection:** safety glasses/splash goggles recommended**- Other protective equipment:** Long sleeves, loose clothing recommended.**SECTION IX SPECIAL PRECAUTIONS****Storage and handling conditions:** Keep containers tightly closed when not in use. KEEP FROM FREEZING.**Special shipping information:** Not regulated by the Transportation of Dangerous Goods Regulations.**TECHNICAL SERVICE**

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