Weaver
CONSTRUCTION MANAGEMENT
3679 S Huron Street, Suite 404 Englewood, Colorado 80110
Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITAL

April 12, 2012
Submittal #: 09900-004

PROJECT: **Harold Thompson Regional WRF**
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: **GMS, Inc.**
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan Sewage Disposal District**
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: **Applewood Painting**
14000 W. 78th Avenue
Arvada, CO 80005
303-425-9071 Jimmy Anderson
jimmyanderson@qwestoffice.net

SUBJECT: Sherwin Williams Sherflex Product – for use at the Headworks Channels & Grit Chamber

SPEC SECTION: 09900 - Painting

PREVIOUS SUBMISSION DATES:

DEVIATIONS FROM SPEC: ___ YES _x_ NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and, unless indicated otherwise, has been found to be in conformance with the intent of the contract documents.

Contractor's Stamp:	Engineer's Stamp:
Date: 4/12/12 Reviewed by: John Jacob (X) Reviewed Without Comments ( ) Reviewed With Comments	

ENGINEER'S COMMENTS:_____
_____
_____

Protective & Marine Coatings

CLASSIFIED UL WATER QUALITY

SHERFLEX ELASTOMERIC POLYURETHANE

PART A	B65H910	BEIGE (NSF)
PART A	B65B910	BLACK
PART B	B65V910	HARDENER (NSF)

Revised 1/12

PRODUCT INFORMATION

TRM.69

PRODUCT DESCRIPTION

SherFlex Elastomeric Polyurethane is a 100% solids, spray applied, aromatic polyurethane coating and lining. It can be applied at thicknesses of 30-250 mils (750-6250 microns) in multiple passes during a single application.

- Fast cure - short down time
- High build and Flexible
- Crack bridging capabilities
- Seamless and waterproof
- Impact, tear, and abrasion resistant
- Chemical resistant
- Low permeability

PRODUCT CHARACTERISTICS

Finish:	Semi-gloss
Colors:	Beige (NSF), Black
Volume Solids:	100%
Mix Ratio:	3:1
VOC (calculated):	0 g/L

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**30.0** (750)	**250.0*** (6250)*
Dry mils (microns)	**30.0** (750)	**250.0*** (6250)*
~Coverage sq ft/gal (m^2/L)	**6** (0.72)	**53** (6.4)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1600** (39.2)	

Drying Schedule @ 30.0 mils wet (750 microns):

	@ 40°F/4.5°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	3 hours	45 minutes	30 minutes
Tack free:	5 hours	2.5 hours	1.5 hours
To recoat maximum:	30 days	30 days	30 days
To cure:	5 days	1 day	1 day

If maximum recoat time is exceeded, abrade surface before recoating.

Pot Life:	None	None	None
Sweat-in-Time:	None	None	None

For **Potable Water Service**, allow a minimum cure time of 1 day @ 77°F (25°C) prior to placing in service. Sterilize and rinse per AWWA C652.

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C). Drums must be rotated every 90 days.
Flash Point:	240°F (115°C), Closed Cup Part A 390°F (198°C), Closed Cup Part B
Reducer:	Not recommended
Clean Up:	Xylene R2K4 or MEK R6K10

RECOMMENDED USES

Potable Water Tank Restrictions:
Water contact temperature: 23°C
Tanks ≥ 3,000 gallons
Pipes ≥ 61"
Maximum DFT: 100 mils

Designed for use in immersion service as a tough, flexible, impact resistant, waterproof coating and lining system.

For use in areas including:

- Wet Wells
- Grit Chambers
- Aeration Basins
- Sewer manholes
- Cooling Tower Linings
- Water & wastewater linings
- Secondary containment
- Potable Water

Acceptable for immersion service in Jet-A Fuel and JP-5 Jet Fuel

- Beige is NSF approved

PERFORMANCE CHARACTERISTICS

Substrate*: Concrete

Surface Preparation*: SSPC-SP13/NACE6, or ICRI No. 310.2, CSP 3-5

System Tested*:
1 ct. Corobond LT Epoxy Primer @ 4.0 mils (100 microns) dft
1 ct. SherFlex Elastomeric @ 60.0 mils (1500 microns) dft
*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	106 mg loss
Adhesion	ASTM D4541	Concrete: 350 psi (concrete failure); Steel: 1800 psi
Dielectric Strength	ASTM D149-92a, method A	430 volts/mil
Direct Impact	ASTM D2794 on steel pipe	160 in./lb, no failures
Durometer Hardness	ASTM D2240	43
Elongation	ASTM D638	45% at 25°C (77°F)
Flexibility	ASTM D1737	No effect bending 0.5 mm plate coated with 20 mils (500 microns) over mandrel of 8 mm diameter
Permeability	ASTM E96	0.189 grains/ hr ft ^{2}Hg U.S. Perms
Tensile Strength	ASTM D638	1988 psi at 25°C (77°F)
Thermal Conductivity	ASTM C177	0.000550 cal./sec. cm^2°C per cm at 25°C (0.133 BTU/ HR.ft.°F per ft at 77°F)

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PART A	B65H910	BEIGE (NSF)
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PRODUCT INFORMATION

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Concrete:			
1 ct	Corobond Conductive Epoxy Primer	2.0-4.0	(50-100)
1 ct	SherFlex Elastomeric	60.0-250.0*	(1500-6250)
Concrete			
1 ct	Corobond LT Epoxy Primer	4.0-8.0	(100-200)
1 ct	SherFlex Elastomeric	60.0-250.0*	(1500-6250)

Other acceptable primers:

- Dura-Plate UHS Primer
- Corobond HS Primer
- Dura-Plate 235
- Corothane I- PrePrime (Smooth Concrete, air and surface temperature below 70° F)
- FasTop Primer (for new concrete) 3.0-5.0 (75-125)

Steel:			
1 ct.	SherFlex Elastomeric	30.0 -250.0*	(750-6250)
or			
1 ct.	Copoxy Shop Primer (as a hold primer)	1.0	(25)
1 ct.	SherFlex Elastomeric	30.0 -250.0*	(750-6250)
Steel, Potable Water (lining)			
1 ct.	SherFlex Elastomeric	30.0-100.0*	(750-2500)
Steel, with holding primer, Potable Water Full System (lining)			
1 ct.	Copoxy Shop Primer	1.0 -1.5	(25-40)
1 ct.	SherFlex Elastomeric	30.0-100.0*	(750-2500)
Concrete, Potable Water (lining)			
1 ct.	Copoxy Shop Primer	3.0-4.0	(75-100)
1 ct.	SherFlex Elastomeric	60.0-100.0*	(1500-2500)

* Potable Water Applications:

- Maximum DFT allowed is 100 mils (2500 microns)
- SherFlex Repair may be applied up to 80 mils (2000 microns) dft. If applied over SherFlex, the dft of the SherFlex Repair should not exceed 30 mils (750 microns).

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel
Immersion: SSPC-SP10/NACE 2, 3.0 mil (75 micron) profile minimum

Concrete
Immersion: SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 3-5

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:
Material: 140°F (60°C) minimum, 160°F (71°C) maximum
Air and surface: -20°F (-29°C) minimum, 120°F (49°C) maximum
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
Part A: 5 gal (18.9L) cans or 53 gallon (200L) drums
Part B: 5 gal (18.9L) cans or 53 gallon (200L) drums

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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Revised 1/12

APPLICATION BULLETIN

TRM.69

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (3 mils/75 microns or greater). Remove all weld spatter and round all sharp edges by grinding. Coat all steel before flash rusting occurs.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 3-5. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2 Concrete Surface Preparation.

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2, CSP 3-5.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:	
Material:	140°F (60°C) minimum, 160°F (71°C) maximum
Air and surface:	-20°F (-29°C) minimum, 120°F (49°C) maximum At least 5°F (2.8°C) above dew point
Relative humidity:	85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reduction .....Not recommended

Clean Up .....Xylene R2K4, MEK R6K10

Purge Solvent .....MEK R6K10, Acetone

Recommended Spray Equipment*
Pump.....Graco Hydra-Cat or Xtreme mix system with remote manifold (restriction required on Hardener side)
Pressure.....3000 psi working pressure
Hose.....3/8" Resin,1/4" Hardener, 1/4" whip hose from Mixing Manifold to Gun, 10 ft maximum 5" Static Mixing Tube with disposable plastic insert.
Tip .....025" - .035"

Conventional Spray .....Not recommended

Brush .....Repairs and touch-up only

*Application training is required and spray equipment must be approved by Sherwin-Williams Technical Service.

If specific application equipment is not listed above, equivalent equipment may be substituted.

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APPLICATION BULLETIN

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Agitate components thoroughly with low speed power agitation before use to disperse pigment and assure homogeneity. Do not reduce (thin). Do not mix resins A and B together. CAUTION: Do not agitate in air and moisture. Both components should be heated to approximately 140°F-160°F (60°C-71°C) to achieve spray pattern consistency.

Plural component application required, 3:1 mix ratio.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	**30.0**	(750)	**250.0***	(6250)*
Dry mils (microns)	**30.0**	(750)	**250.0***	(6250)*
~Coverage sq ft/gal (m^2/L)	**6**	(0.72)	**53**	(6.4)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1600**	(39.2)		

Drying Schedule @ 30.0 mils wet (750 microns):

	@ 40°F/4.5°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	3 hours	45 minutes	30 minutes
Tack free:	5 hours	2.5 hours	1.5 hours
To recoat maximum:	30 days	30 days	30 days
To cure:	5 days	1 day	1 day
If maximum recoat time is exceeded, abrade surface before recoating.			
Pot Life:	None	None	None
Sweat-in-Time:	None	None	None

For **Potable Water Service**, allow a minimum cure time of 1 day @ 77°F (25°C) prior to placing in service. Sterilize and rinse per AWWA C652.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Xylene R2K4, or MEK R6K10. Clean tools and equipment immediately after use (including both A and B sides of plural component spray system) with Xylene R2K4, or MEK R6K10.

DISCLAIMER

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PERFORMANCE TIPS

For immersion applications, a minimum total dry film thickness of 30 mils (750 microns) for steel and 60 mils (1500 microns) for concrete is required.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Use only heated, plural component equipment capable of producing 4,000 psi output consistently.

In order to prevent blockage of spray equipment, clean equipment before use or before periods of extended downtime with Xylene R2K4, or MEK R6K10

While spraying, use 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness, or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, climatic conditions, and excessive film build.

Do not agitate in air and moisture.

For concrete, refer to moisture content testing per SSPC SP-13/ NACE No. 6. Do not proceed with MVE >3lbs.

Consult your Sherwin-Williams representative for specific application and performance recommendations.

* Potable Water Applications:
- Maximum DFT allowed is 100 mils (2500 microns)
- SherFlex Repair may be applied up to 80 mils (2000 microns) dft. If applied over SherFlex, the dft of the SherFlex Repair should not exceed 30 mils (750 microns).

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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WARRANTY

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MATERIAL SAFETY DATA SHEET

B65H910
11 00

DATE OF PREPARATION
Nov 9, 2011

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
B65H910

PRODUCT NAME
SHERFLEX™ Elastomeric Polyurethane (Part A), Beige

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
**for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)*	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
3	**19900-65-3**	**Methylenebisbenzenamine**		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
30	**14808-60-7**	**Quartz**		
		ACGIH TLV	0.025 mg/m3 as Resp. Dust	
		OSHA PEL	0.1 mg/m3 as Resp. Dust	
4	**14807-96-6**	**Talc**		
		ACGIH TLV	2 mg/m3 as Resp. Dust	
		OSHA PEL	2 mg/m3 as Resp. Dust	
2	**13463-67-7**	**Titanium Dioxide**		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist. EYE or SKIN contact with the product, vapor or spray mist.
Contains an amine which can be absorbed through the skin.

HMIS Codes

Health	2*
Flammability	0
Reactivity	0

EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.
Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.

CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
INHALATION: If any breathing problems occur during use, **LEAVE THE AREA** and get fresh air. If problems remain or occur later, **IMMEDIATELY** get medical attention.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
Not Applicable	N.A.	N.A.	Not Applicable

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY

Not Applicable

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow respirator manufacturers directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. **NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.**

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	11.01 lb/gal	1319 g/l
SPECIFIC GRAVITY	1.32	
BOILING POINT	Not Applicable	
MELTING POINT	Not Available	
VOLATILE VOLUME	0%	
EVAPORATION RATE	N.A.	
VAPOR DENSITY	N.A.	
SOLUBILITY IN WATER	N.A.	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

0.00 lb/gal	0 g/l	Less Water and Federally Exempt Solvents
0.00 lb/gal	0 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Crystalline Silica (Quartz, Cristobalite) is listed by IARC and NTP. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer.

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

TOXICOLOGY DATA

CAS No.	Ingredient Name			
19900-65-3	**Methylenebisbenzenamine**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
14808-60-7	**Quartz**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
14807-96-6	**Talc**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
13463-67-7	**Titanium Dioxide**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

IATA/ICAO

Not Regulated for Transportation.

SECTION 15 — REGULATORY INFORMATION

SARA 313 *(40 CFR 372.65C)* SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element

No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.