Data Pages

Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

Revised 8/2014

PRODUCT INFORMATION

10.05

PRODUCT DESCRIPTION

HOTLINE LATEX TRAFFIC PAINTS are very fast drying paints for use in marking parking lots, airports, and roads. TM2152 and TM2153 may be applied ambient airless or conventional, or may be heated for even faster dry. TM2152 and TM2153 conform to current requirements of Federal Specification TT-P-1952E Types I and II, and dry to no pickup in less than ten minutes when properly applied at ambient conditions, or one to two minutes when heated to 140°F (60°C). High relative humidity has significantly less effect on the dry time of these products as compared to other latex traffic paints.

- Meets TT-P-1952D types I and II
- **FOR PROFESSIONAL USE ONLY.**
- **SEE MATERIAL SAFETY DATA SHEET**

PRODUCT CHARACTERISTICS

Finish:	Flat
Color:	White, Yellow
Volume Solids:	60% minimum
Weight Solids:	77% minimum

VOC (less exempt solvents):
White: 87 g/L; 0.72 lb/gal **Yellow:** 86 g/L; 0.72 lb/gal
As per 40 CFR 59.406 and SOR/2009-264, s.12

Recommended Spreading Rate per coat:

Approximately 320 lineal feet of standard 4" stripe per gallon

Wet mils (microns)	**15.0**	375
Dry mils (microns)	**9.0**	225
~Coverage sq ft/gal (m^2/L)	**110**	2.7
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**960**	23.5

NOTE: Brush or roll application not recommended.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 77°F/25°C
50% RH

To touch:	10 minutes
No traffic pickup after:	10 minutes

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point:	150°F (66°C), PMCC

RECOMMENDED USES

For marking airfields, highways, or parking lots when faster dry times are needed and water based coatings are required. These products are less affected by relative humidity than most latex paints, and are ideal for striping when very fast dry times are required.

- Striping contractors
- Shopping centers
- Plant maintenance
- Streets and highways
- Municipalities
- Parking lots
- State DOTs

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	TT-P-1952E Requirements	Results
Abrasion Resistance (falling sand)	ASTM D968	minimum 150 liters	Pass
Bead Adhesion	ASTM D968	minimum 150 liters	Pass
Bleed Resistance	ASTM D868	N/A	>8
Bleed Ratio	ASTM D969	0.95 min	0.99
Color (yellow)	ASTM D1729	Match Fed STD. 595 Chip	5.66 ΔE
Dry-No-Pickup	ASTM D711	10 minutes max.	10 minutes max.
Dry Opacity	ASTM D2805	0.92 minimum	0.94 minimum
Dry Through (early washout)	ASTM D1640	2 hrs maximum	35 minutes
Flash Point	ASTM D3278	N/A	150°F (66°C)
Fineness of Grind	ASTM D1210	3 Hegman min.	4 Hegman min.
Flexibility	ASTM D522	Pass	Pass
Freeze-Thaw Resistance	ASTM D2243	3 cycles	Pass
Heat Shear Stability	TT-P-1952-E	68-105 KU	Pass
Reflectance (white only)	ASTM-E1347	85% minimum	90%
Scrub Resistance	ASTM D2486	500 cycles min.	500 cycles min.
Viscosity	ASTM D562	80-90 KU	80-90 KU
VOC	ASTM D2369	150 g per liter	87 g/l; 0.73 lbs/gal

COMPOSITION INFORMATION

Total Weight:	60% minimum by volume 77% minimum by weight
Pigment Weight Percent:	60 to 62%
Non-Volatile Vehicle:	40% minimum
Vehicle Type:	Acrylic Latex Polymer

As per the requirements of TT-P-1952E, paragraph 3.1.2, these products do not contain mercury, lead, hexavalent chromium, toluene, chlorinated solvents, hydrolyzable chlorine derivatives, ethylene based glycol ethers or their acetates.

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Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 White
TM2153 Lead Free Yellow

Product Information

10.05

Recommended Systems

Cured Asphalt, Concrete, Brick, and other Surfaced Highways:

1 ct. Hotline Fast Dry Latex Marking Paint @ 15 mils (375 microns) wet, 9.0 mils (225 microns) dft, approximately 320 lineal feet of standard 4" stripe per gallon

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

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:

Concrete:	Cured, clean, dry, sound
Asphalt:	Cured, clean, dry, sound
Brick:	Cured, clean, dry, sound

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:	50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material)
	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: 5 gallon (18.9L) containers

Weight per gallon:

White:	14.10 ± 0.2 lbs/gal ; 1.68 Kg/L
Yellow:	13.72 ± 0.2 lbs/gal ; 1.64 Kg/L

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.

Disclaimer

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Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 White
TM2153 Lead Free Yellow

Revised 8/2014

Application Bulletin

10.05

Surface Preparations

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health ef ects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly f tted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, loose paint and other foreign material to ensure adequate adhesion.
Do not apply when air or surface temperatures are below 50°F (10°C), or when the relative humidity exceeds 85%, or when the temperature falls below the dew point.

The presence of concrete sealers or efflorescence on new concrete may interfere with adhesion and should be removed by extended weathering, etching, or abrasive blasting.

Most previously painted lines may be repainted without additional surface preparation, provided the old paint is still tightly adhered to the surface. However, multiple layers of paint will eventually peel and require removal.

New asphalt surfaces should ideally be allowed to age several months before striping. Latex paint will not bleed on most asphalt surfaces; however, shrinkage of the paint film during curing can cause new asphalt to lift or crack. Exceeding the recommended film thickness will increase the tendency to cause asphalt lifting. Placing an inconspicuous test stripe to determine if a new asphalt surface has cured sufficiently to paint is recommended.

If it is necessary to paint new asphalt surfaces, do not exceed an application rate of 8 mils (200 microns) wet (approximately 200 sq ft/gal / 4.9 m^2/L). Special care should be given to laps and edges of stencils to prevent excessive film thickness.

Application Procedures

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated on prior pages

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

Application Conditions

Temperature:	50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material) 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.

Reducer/Clean Up ..... Water

Airless Spray Line Striping Equipment

Pressure	1800 - 2700 psi
Hose	1/4" - 3/8" ID
Tip	.015" - .019"
Filter	60 mesh
Reduction	As needed up to 12½% by volume

Conventional Spray Line Striping Equipment

Gun	Binks 21 (Bleeder)
Fluid Nozzle	#68
Air Nozzle	Internal mix, #709
Atomization Pressure	20 - 80 psi
Fluid Pressure	30 - 60 psi
Reduction	As needed up to 12½% by volume

Brush ..... Not recommended

Roller ..... Not recommended

NOTE: Fluid and atomization pressures are dependent on environmental conditions. Use the lowest pressures necessary to achieve a "flat line".

If the striping machine is also used for solvent based paints, care must be taken to prevent contamination of the paint types.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 140°F (60°C) at any time.

Important: All metallic wetted parts must be stainless steel. Contact with brass, cold steel, and especially galvanized steel may cause gelation of the paint.

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

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Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

APPLICATION BULLETIN

10.05

PERFORMANCE TIPS

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, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

Asphalt surfaces generally require aging prior to painting.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Check adhesion by applying a test strip to determine the readiness for painting.

The coating may be made into reflective paint by dropping on glass beads while the paint is still wet.

Painted surfaces can become slippery when wet. Traffic paints are not intended for use as floor paints, and should not be used to paint large areas subject to pedestrian traffic. For instance, painting an entire traffic stall is not recommended.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 140°F at any time.

Do not paint on wet surfaces.

Do not paint when the relative humidity is above 85%.

Do not paint when the temperature is below 50°F (10°C).

Cool, damp conditions will prolong the drying time.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with mineral spirits to prevent rusting of the equipment. Follow manufacturers' safety recommendations when using mineral spirits.

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.

WARNING!

COMBUSTIBLE!
Before using, carefully read **CAUTIONS.**

CAUTIONS
CONTAINS: CRYSTALLINE SILICA
Contents are **COMBUSTIBLE.** Keep away from heat and open flame. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (**NIOSH** approved) or leave the area. Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided wear an approved particulate respirator (**NIOSH** approved). Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. ***FIRST AID:*** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Abrading or sanding of the dry film may release crystalline silica which has been shown to cause lung damage and cancer under long term exposure. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

FOR PROFESSIONAL USE ONLY.
SEE MATERIAL SAFETY DATA SHEET.

HOTW	08/12/2014	TM2152	20 87
HOTW	08/12/2014	TM2153	28 86

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.

Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

Revised 8/2014

PRODUCT INFORMATION

10.05

PRODUCT DESCRIPTION

HOTLINE LATEX TRAFFIC PAINTS are very fast drying paints for use in marking parking lots, airports, and roads. TM2152 and TM2153 may be applied ambient airless or conventional, or may be heated for even faster dry. TM2152 and TM2153 conform to current requirements of Federal Specification TT-P-1952E Types I and II, and dry to no pickup in less than ten minutes when properly applied at ambient conditions, or one to two minutes when heated to 140°F (60°C). High relative humidity has significantly less effect on the dry time of these products as compared to other latex traffic paints.

- Meets TT-P-1952D types I and II
- **FOR PROFESSIONAL USE ONLY.**
- **SEE MATERIAL SAFETY DATA SHEET**

PRODUCT CHARACTERISTICS

Finish:	Flat
Color:	White, Yellow
Volume Solids:	60% minimum
Weight Solids:	77% minimum

VOC (less exempt solvents):
White: 87 g/L; 0.72 lb/gal **Yellow:** 86 g/L; 0.72 lb/gal
As per 40 CFR 59.406 and SOR/2009-264, s.12

Recommended Spreading Rate per coat:

Approximately 320 lineal feet of standard 4" stripe per gallon

Wet mils (microns)	**15.0**	375
Dry mils (microns)	**9.0**	225
~Coverage sq ft/gal (m^2/L)	**110**	2.7
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**960**	23.5

NOTE: Brush or roll application not recommended.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 77°F/25°C
50% RH

To touch:	10 minutes
No traffic pickup after:	10 minutes

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point:	150°F (66°C), PMCC

RECOMMENDED USES

For marking airfields, highways, or parking lots when faster dry times are needed and water based coatings are required. These products are less affected by relative humidity than most latex paints, and are ideal for striping when very fast dry times are required.

- Striping contractors
- Shopping centers
- Plant maintenance
- Streets and highways
- Municipalities
- Parking lots
- State DOTs

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	TT-P-1952E Requirements	Results
Abrasion Resistance (falling sand)	ASTM D968	minimum 150 liters	Pass
Bead Adhesion	ASTM D968	minimum 150 liters	Pass
Bleed Resistance	ASTM D868	N/A	>8
Bleed Ratio	ASTM D969	0.95 min	0.99
Color (yellow)	ASTM D1729	Match Fed STD. 595 Chip	5.66 ΔE
Dry-No-Pickup	ASTM D711	10 minutes max.	10 minutes max.
Dry Opacity	ASTM D2805	0.92 minimum	0.94 minimum
Dry Through (early washout)	ASTM D1640	2 hrs maximum	35 minutes
Flash Point	ASTM D3278	N/A	150°F (66°C)
Fineness of Grind	ASTM D1210	3 Hegman min.	4 Hegman min.
Flexibility	ASTM D522	Pass	Pass
Freeze-Thaw Resistance	ASTM D2243	3 cycles	Pass
Heat Shear Stability	TT-P-1952-E	68-105 KU	Pass
Reflectance (white only)	ASTM-E1347	85% minimum	90%
Scrub Resistance	ASTM D2486	500 cycles min.	500 cycles min.
Viscosity	ASTM D562	80-90 KU	80-90 KU
VOC	ASTM D2369	150 g per liter	87 g/l; 0.73 lbs/gal

COMPOSITION INFORMATION

Total Weight:	60% minimum by volume 77% minimum by weight
Pigment Weight Percent:	60 to 62%
Non-Volatile Vehicle:	40% minimum
Vehicle Type:	Acrylic Latex Polymer

As per the requirements of TT-P-1952E, paragraph 3.1.2, these products do not contain mercury, lead, hexavalent chromium, toluene, chlorinated solvents, hydrolyzable chlorine derivatives, ethylene based glycol ethers or their acetates.

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Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

PRODUCT INFORMATION

10.05

RECOMMENDED SYSTEMS

Cured Asphalt, Concrete, Brick, and other Surfaced Highways:

1 ct. Hotline Fast Dry Latex Marking Paint @ 15 mils (375 microns) wet, 9.0 mils (225 microns) dft, approximately 320 lineal feet of standard 4" stripe per gallon

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

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:

Concrete:	Cured, clean, dry, sound
Asphalt:	Cured, clean, dry, sound
Brick:	Cured, clean, dry, sound

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:	50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material)
	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:	5 gallon (18.9L) containers
Weight per gallon:	
White:	14.10 ± 0.2 lbs/gal ; 1.68 Kg/L
Yellow:	13.72 ± 0.2 lbs/gal ; 1.64 Kg/L

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

Revised 8/2014

APPLICATION BULLETIN

10.05

SURFACE PREPARATIONS

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Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, loose paint and other foreign material to ensure adequate adhesion.
Do not apply when air or surface temperatures are below 50°F (10°C), or when the relative humidity exceeds 85%, or when the temperature falls below the dew point.

The presence of concrete sealers or efflorescence on new concrete may interfere with adhesion and should be removed by extended weathering, etching, or abrasive blasting.

Most previously painted lines may be repainted without additional surface preparation, provided the old paint is still tightly adhered to the surface. However, multiple layers of paint will eventually peel and require removal.

New asphalt surfaces should ideally be allowed to age several months before striping. Latex paint will not bleed on most asphalt surfaces; however, shrinkage of the paint film during curing can cause new asphalt to lift or crack. Exceeding the recommended film thickness will increase the tendency to cause asphalt lifting. Placing an inconspicuous test stripe to determine if a new asphalt surface has cured sufficiently to paint is recommended.

If it is necessary to paint new asphalt surfaces, do not exceed an application rate of 8 mils (200 microns) wet (approximately 200 sq ft/gal / 4.9 m²/L). Special care should be given to laps and edges of stencils to prevent excessive film thickness.

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated on prior pages

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

APPLICATION CONDITIONS

Temperature:	50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material) 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.

Reducer/Clean Up .....Water

Airless Spray Line Striping Equipment

Pressure	1800 - 2700 psi
Hose	1/4" - 3/8" ID
Tip	.015" - .019"
Filter	60 mesh
Reduction	As needed up to 12½% by volume

Conventional Spray Line Striping Equipment

Gun	Binks 21 (Bleeder)
Fluid Nozzle	#68
Air Nozzle	Internal mix, #709
Atomization Pressure	20 - 80 psi
Fluid Pressure	30 - 60 psi
Reduction	As needed up to 12½% by volume

Brush .....Not recommended

Roller .....Not recommended

NOTE: Fluid and atomization pressures are dependent on environmental conditions. Use the lowest pressures necessary to achieve a "flat line".

If the striping machine is also used for solvent based paints, care must be taken to prevent contamination of the paint types.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 140°F (60°C) at any time.

Important: All metallic wetted parts must be stainless steel. Contact with brass, cold steel, and especially galvanized steel may cause gelation of the paint.

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

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Traffic & Zone Products

HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

APPLICATION BULLETIN

10.05

PERFORMANCE TIPS

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, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

Asphalt surfaces generally require aging prior to painting.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Check adhesion by applying a test strip to determine the readiness for painting.

The coating may be made into reflective paint by dropping on glass beads while the paint is still wet.

Painted surfaces can become slippery when wet. Traffic paints are not intended for use as floor paints, and should not be used to paint large areas subject to pedestrian traffic. For instance, painting an entire traffic stall is not recommended.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 140°F at any time.

Do not paint on wet surfaces.

Do not paint when the relative humidity is above 85%.

Do not paint when the temperature is below 50°F (10°C).

Cool, damp conditions will prolong the drying time.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with mineral spirits to prevent rusting of the equipment. Follow manufacturers' safety recommendations when using mineral spirits.

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COMBUSTIBLE!
Before using, carefully read **CAUTIONS.**

CAUTIONS
CONTAINS: CRYSTALLINE SILICA
Contents are **COMBUSTIBLE.** Keep away from heat and open flame. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (**NIOSH** approved) or leave the area. Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided wear an approved particulate respirator (**NIOSH** approved). Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. ***FIRST AID:*** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Abrading or sanding of the dry film may release crystalline silica which has been shown to cause lung damage and cancer under long term exposure. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

FOR PROFESSIONAL USE ONLY.
SEE MATERIAL SAFETY DATA SHEET.

HOTW	08/12/2014	TM2152	20 87
HOTW	08/12/2014	TM2153	28 86

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.

Material Safety Data Sheets

MATERIAL SAFETY DATA SHEET

TM2153
28 00

DATE OF PREPARATION
Aug 20, 2014

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
TM2153
PRODUCT NAME
HOTLINE® Fast Dry Waterborne Traffic Marking Paint (TT-P-1952D/E Type I & II), Yellow
MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	(800) 368-2026
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
2	67-56-1	**Methanol**		
		ACGIH TLV	200 ppm (Skin)	92 mm
		ACGIH TLV	250 ppm (Skin) STEL	
		OSHA PEL	200 ppm (Skin)	
		OSHA PEL	250 ppm (Skin) STEL	
58	1317-65-3	**Calcium Carbonate**		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
1	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.

HMIS Codes

Health	3*
Flammability	2
Reactivity	0

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

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:
- the liver
- the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.
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.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
150 °F PMCC	6.0	36.5	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Alcohol Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.
Application to hot surfaces requires special precautions.
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
DOL Storage Class IIIA
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
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
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
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
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
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	13.72 lb/gal	1644 g/l
SPECIFIC GRAVITY	1.65	
BOILING POINT	148 - 213 °F	64 - 100 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	38%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	
pH	9.5	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

0.72 lb/gal	86 g/l	Less Water and Federally Exempt Solvents
0.49 lb/gal	59 g/l	Emitted VOC

VOLATILE ORGANIC COMPOUNDS (VOC - As Applied)

<0.83 lb/gal	<100 g/l	Less Water and Federally Exempt Solvents

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

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

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			
67-56-1	**Methanol**			
		LC50 RAT	4HR	64000 ppm
		LD50 RAT		5630 mg/kg
1317-65-3	**Calcium Carbonate**			
		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
67-56-1	Methanol	2	

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.

MATERIAL SAFETY DATA SHEET

TM2152
20 00

DATE OF PREPARATION
Feb 24, 2014

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
TM2152
PRODUCT NAME
HOTLINE® Fast Dry Waterborne Traffic Marking Paint (TT-P-1952D/E Type I & II), White
MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	(800) 368-2026
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
2	67-56-1	**Methanol**		
		ACGIH TLV	200 ppm (Skin)	92 mm
		ACGIH TLV	250 ppm (Skin) STEL	
		OSHA PEL	200 ppm (Skin)	
		OSHA PEL	250 ppm (Skin) STEL	
54	1317-65-3	**Calcium Carbonate**		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
7	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.

HMIS Codes

Health	3*
Flammability	2
Reactivity	0

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

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:
- the liver
- the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.
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.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
150 °F PMCC	6.0	36.5	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Alcohol Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.
Application to hot surfaces requires special precautions.
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
DOL Storage Class IIIA
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
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
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
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
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
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	14.10 lb/gal	1689 g/l
SPECIFIC GRAVITY	1.70	
BOILING POINT	148 - 213 °F	64 - 100 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	39%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	
pH	9.5	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

0.72 lb/gal	87 g/l	Less Water and Federally Exempt Solvents
0.49 lb/gal	59 g/l	Emitted VOC

VOLATILE ORGANIC COMPOUNDS (VOC - As Applied)

<0.83 lb/gal	<100 g/l	Less Water and Federally Exempt Solvents

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

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

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			
67-56-1	**Methanol**			
		LC50 RAT	4HR	64000 ppm
		LD50 RAT		5630 mg/kg
1317-65-3	**Calcium Carbonate**			
		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
67-56-1	Methanol	2	

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.

MATERIAL SAFETY DATA SHEET

TM2221
14 00

DATE OF PREPARATION
Feb 13, 2014

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
TM2221
PRODUCT NAME
SHER-FLIGHT® Waterborne Pavement Marking Paint TTP-1952E, Premium Black
MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

Telephone Numbers and Websites

Product Information	(800) 368-2026
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
2	67-56-1	**Methanol**		
		ACGIH TLV	200 ppm (Skin)	92 mm
		ACGIH TLV	250 ppm (Skin) STEL	
		OSHA PEL	200 ppm (Skin)	
		OSHA PEL	250 ppm (Skin) STEL	
0.6	14808-60-7	**Quartz**		
		ACGIH TLV	0.025 mg/m3 as Resp. Dust	
		OSHA PEL	0.1 mg/m3 as Resp. Dust	
11	546-93-0	**Magnesium Carbonate**		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	15 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
1	1333-86-4	**Carbon Black**		
		ACGIH TLV	3.5 MG/M3	
		OSHA PEL	3.5 MG/M3	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

HMIS Codes

Health	3*
Flammability	2
Reactivity	0

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

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:
- the liver
- the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.

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.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
150 °F PMCC	6.0	36.5	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Alcohol Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.
Application to hot surfaces requires special precautions.
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
DOL Storage Class IIIA
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
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
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
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
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
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	13.78 lb/gal	1651 g/l
SPECIFIC GRAVITY	1.66	
BOILING POINT	148 - 213 °F	64 - 100 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	38%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	
pH	9.8	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

0.72 lb/gal	86 g/l	Less Water and Federally Exempt Solvents
0.49 lb/gal	59 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

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

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.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

TOXICOLOGY DATA

CAS No.	Ingredient Name			
67-56-1	**Methanol**			
		LC50 RAT	4HR	64000 ppm
		LD50 RAT		5630 mg/kg
14808-60-7	**Quartz**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
546-93-0	**Magnesium Carbonate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
1333-86-4	**Carbon Black**			
		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
67-56-1	Methanol	2	

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.