



Material Safety Data Sheet

The Sherwin-Williams Co.
101 Prospect Ave. N.W.
Cleveland, OH 44115

Emergency telephone number
Information telephone number
Date of preparation

(216) 566-2917
(216) 566-2902
April 29, 1998

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SETFAST® Traffic Marking Paint (waterborne)

TM-W/1

— Section 2 —		ACGIH	OSHA	Vapor	TM225	TM226	(TM2116)	(TM2117)	(TM2119)	TM2132	TM2133	TM2135	% B Y W E I G H T
CAS No.	Hazardous Ingredients (percent by weight)	TLV <STEL>	PEL <STEL>	Pressure (mm Hg)	Yellow	White	White	Yellow	Lead Free Yellow	Red	Blue	Black	
67-56-1	§ Methanol	200 <250>	200 <250>	PPM (Skin) 92.0	3	3	6	6	3	2	2	2	
471-34-1	Calcium Carbonate.	10	15[5]	Mg/M3 as Dust [Resp. Fraction]	51	53	46	45	50	49	50	49	
13463-67-7	Titanium Dioxide.	10	10[5]	Mg/M3 as Dust [Resp. Fraction]		4	6		2				
1333-86-4	Carbon Black.	3.5	3.5	Mg/M3								1	
1344-37-2	Lead Chromate.	0.05	0.05	Mg/M3	5			6					
§	Chromium Compound. [% Chromium]				5 [0.6]			6 [0.9]					
§	Lead Compound. [% Lead]				5 [3.0]			6 [3.5]					
	Weight per Gallon (lbs.)				13.44	13.35	12.65	12.70	12.67	12.36	12.56	12.47	
	Solids by Weight (%)				73.1	73.5	71.3	71.0	73.3	70.0	70.9	70.9	
	Solids by Volume (%)				55.5	56.3	54.1	53.6	57.6	54.6	55.4	56.0	
	Percent Water				22.3	21.8	20.9	21.2	21.6	25.5	25.1	25.5	
	VOC (Volatile Organic Compounds) Total - lbs./gal.				0.59	0.61	0.97	0.97	0.62	0.55	0.48	0.43	
	VOC Less Water & Federally Exempt Solvents - lbs./gal.				0.93	0.94	1.42	1.43	0.93	0.88	0.78	0.70	
	Photochemically Reactive				No	No	No	No	No	No	No	No	
	Flash Point (°F)				135	135	104	104	135	135	135	135	
	HMIS (NFPA) Rating (health - flammability - reactivity)				3* - 2 - 0	3 - 2 - 0	3 - 2 - 0	3* - 2 - 0	3 - 2 - 0	3 - 2 - 0	3 - 2 - 0	3* - 2 - 0	

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

→→→ MSDS Text Page Follows →→→



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Traffic Marking Paint (waterborne)

TM-W/2

— Section 2 — CAS No. Hazardous Ingredients (percent by weight)						SETFAST®						HOT LINE®		% B Y W E I G H T
		ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	TM2136 Fast Dry White	TM2137 Fast Dry Yellow	TM2155 LF Yellow	TM2159 Conventional Yellow	TM2160 Conventional White	TM2161 Conventional LF Yellow	TM2152 White	TM2153 Yellow	
67-56-1	§ Methanol	200 <250>	200 <250>	PPM (Skin)	92.0	3	3	3	3	3	3	3	2	
112-34-5	§ 2-(2-Butoxyethoxy)-ethanol	Not Established			0.1				1		1			
1332-58-7	Kaolin	2	5	Mg/M3	as Resp. Dust				2					
471-34-1	Calcium Carbonate.	10	15[5]	Mg/M3	as Dust [Resp. Fraction]	53	53	55	47	50	48	53	59	
13463-67-7	Titanium Dioxide.	10	10[5]	Mg/M3	as Dust [Resp. Fraction]	6		2		4	2	7	1	
1344-37-2	Lead Chromate.	0.05	0.05	Mg/M3			5		4					
	§ Chromium Compound. [% Chromium]						5 [0.6]		4 [0.6]					
	§ Lead Compound. [% Lead]						5 [3.0]		4 [2.3]					
	Weight per Gallon (lbs.)					13.67	13.68	13.42	12.80	12.93	12.49	13.89	13.88	
	Solids by Weight (%)					76.5	76.0	76.5	68.1	69.4	67.2	76.7	77.4	
	Solids by Volume (%)					60.1	59.2	60.8	49.8	51.2	49.6	59.6	61.2	
	Percent Water					18.6	19.2	18.5	27.2	25.6	27.9	18.8	18.8	
	VOC (Volatile Organic Compounds) Total - lbs./gal.					0.66	0.65	0.66	0.58	0.63	0.60	0.62	0.52	
	VOC Less Water & Federally Exempt Solvents - lbs./gal.					0.95	0.95	0.94	1.01	1.05	1.04	0.91	0.76	
	Photochemically Reactive					No	No	No	No	No	No	No	No	
	Flash Point (°F)					104	104	135	130	130	130	135	135	
	HMIS (NFPA) Rating (health - flammability - reactivity)					3 - 2 - 0	3* - 2 - 0	3 - 2 - 0	3* - 2 - 0	3 - 2 - 0	3 - 2 - 0	3 - 2 - 0	3 - 2 - 0	

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Section 3 — Physical Data

PRODUCT WEIGHT See TABLE
 SPECIFIC GRAVITY 1.49-1.67
 BOILING RANGE 148-477 °F
 VOLATILE VOLUME 38-50 %
 pH 9.1-9.6

EVAPORATION RATE Slower than Ether
 VAPOR DENSITY Heavier than Air
 MELTING POINT N.A.
 SOLUBILITY IN WATER N.A.

Section 4 — Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION FLASH POINT See TABLE LEL 0.9 UEL 36.5
 Combustible, Flash above 99 and below 200 °F
 EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode 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.

Section 5 — Health Hazard Data

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

TM225, TM2117, TM2137, and TM2159 CONTAIN LEAD. Acute occupational exposure to Lead is uncommon, but results in effects and symptoms similar to chronic overexposure described below.

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.

EMERGENCY AND FIRST AID PROCEDURES

IF INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
 IF ON SKIN: Wash affected area thoroughly with soap and water.
 Remove contaminated clothing and launder before re-use.
 IF IN EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
 IF SWALLOWED: Get medical attention.

CHRONIC Health Hazards

TM225, TM2117, TM2137, and TM2159 CONTAIN LEAD AND CHROMATE.

Chronic overexposure to Lead may result in damage to the blood-forming, nervous, urinary, and reproductive systems (including embryotoxic effects). Symptoms include abdominal discomfort or pain, constipation, loss of appetite, metallic taste, nausea, insomnia, nervous irritability, weakness, muscle and joint pains, headache and dizziness.

Chromates are listed by IARC and NTP. Although studies have associated exposure to Chromium VI compounds with an increased risk of respiratory cancer, available evidence indicates that Lead Chromate (Chrome Yellow, Molybdate Orange) DOES NOT present this hazard.

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.

Ethylene Glycol is considered an animal teratogen. It has been shown to cause birth defects in rats and mice at high doses when given in drinking water or by gavage. There is no evidence to indicate it causes birth defects in humans.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver and urinary systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.

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

Section 6 — Reactivity Data

STABILITY — Stable
 CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Metals in Section 2

HAZARDOUS POLYMERIZATION — Will Not Occur

Section 7 — Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste number. TM225, TM2117, TM2137, and TM2159 must also be tested for extractability.

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

Section 8 — Protection Information

PRECAUTIONS TO BE TAKEN IN USE

Before initial use of TM225, TM2117, TM2137, and TM2159 consult OSHA's Standard for Occupational Exposure to Lead (29 CFR 1910.1025).

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

These coatings 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, wirebrushing, abrading, burning or welding the dried film, wear a particulate respirator approved by NIOSH/MSHA for protection against non-volatile materials in Section 2.

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.

Section 9 — Precautions

DOL STORAGE CATEGORY — 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

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.

OTHER PRECAUTIONS

TM225, TM2117, TM2137, and TM2159 CONTAIN LEAD. Do not apply on toys and other children's articles, furniture, or any interior surface of a dwelling or facility which may be occupied or used by children. Do not apply on any exterior surface of dwelling units, such as window sills, porches, stairs, or railings to which children may be commonly exposed.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 — Other Regulatory Information

CALIFORNIA PROPOSITION 65

WARNING: TM225, TM2117, TM2133, TM2137, TM2153, and TM2159 contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. TM2116, TM2119, TM2132, TM2135, TM2136, TM2152, TM2155, TM2160, and TM2161 contain a chemical known to the State of California to cause cancer.

TSCA CERTIFICATION

All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products 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.