



Material Safety Data Sheet

Issuing Date 27-Apr-2011

Revision Date

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ORW-21-M-4 WATERBORNE PAINT

Product Code(s) 983711

Recommended Use Traffic paint

Product Technology W/B

Supplier Address

Ennis Paint Inc.
5910 North Central Expressway
Suite 1050
Dallas TX 75206
T: 800.331.8118
800.331.8118 (For Technical Inquiries)

Chemical Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Harmful by inhalation, in contact with skin and if swallowed

Causes central nervous system depression.

May cause skin, eye, and respiratory tract irritation

May adversely affect liver and kidney.

Cancer hazard

WARNING! This product contains a chemical known in the State of California to cause cancer.

Appearance White

Physical State Emulsion.

Odor Slight, Ammonia

Potential Health Effects

Principle Routes of Exposure

Eye contact. Skin contact. Inhalation.

Acute Toxicity

Eyes

May cause irritation.

Skin

Harmful if absorbed through skin. May cause irritation.

Inhalation

Harmful by inhalation. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Sanding and grinding dust may be harmful if inhaled.

Ingestion

Harmful if swallowed. May cause blindness if swallowed. May cause additional effects as listed under "Inhalation".

Chronic Effects

Inhalation exposure to respirable levels of crystalline silica may cause respiratory impairment and lung damage. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1). Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Inhalation, ingestion, or skin absorption of methanol can cause blindness.

Aggravated Medical Conditions	Respiratory disorders. Lungs. Pre-existing eye disorders. Skin disorders. Liver disorders. Kidney disorders. Central nervous system.
Interactions with Other Chemicals	Use of alcoholic beverages may enhance toxic effects.
Environmental Hazard	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Titanium dioxide	13463-67-7	7-13
Methyl alcohol	67-56-1	5-10
Propylene glycol	57-55-6	1-5
2-Butoxyethanol	111-76-2	1-5
Quartz	14808-60-7	0.1-1

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If symptoms persist, call a physician.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable.
Flash Point	> 201°F / 93.8°C
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Explosion Data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health Hazard 1	Flammability 1	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 2*	Flammability 1	Physical Hazard 0	Personal Protection -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
Environmental Precautions	Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Use personal protective equipment. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Clean up promptly by sweeping or vacuum. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.
Storage	Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Methyl alcohol 67-56-1	STEL = 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 325 mg/m ³ STEL: 250 ppm
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable fraction	TWA: 0.1 mg/m ³ (vacated)	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection Skin and Body Protection Respiratory Protection

Safety glasses with side-shields.
Protective gloves.
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White.	Odor	Slight, Ammonia.
Odor Threshold	No information available	Physical State	Emulsion
pH	No information available.	Autoignition Temperature	No information available.
Flash Point	> 201°F / 93.8°C	Boiling Point/Boiling Range	No information available
Decomposition Temperature	No information available.	Explosion Limits	No information available.
Melting Point/Range	No information available	Solubility	Insoluble
Flammability Limits in Air	No information available.	Vapor Pressure	No data available
Specific Gravity	1.55 - 1.75	EPA VOC (g/l)	<100
Evaporation Rate	No information available		
Vapor Density	No data available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	None known based on information supplied.
Conditions to Avoid	None known based on information supplied.
Hazardous Decomposition Products	Carbon oxides. Nitrogen oxides (NOx).
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene glycol	20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	-
Methyl alcohol	5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	83.2 mg/L (Rat) 4 h 64000 ppm (Rat) 4 h
2-Butoxyethanol	= 470 mg/kg (Rat)	= 400 mg/kg (Rabbit) = 2270 mg/kg (Rat)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h
Quartz	500 mg/kg (Rat)		
Titanium dioxide	> 10000 mg/kg (Rat)		> 6820 mg/m ³

Chronic Toxicity

Chronic Toxicity

Inhalation exposure to respirable levels of crystalline silica may cause respiratory impairment and lung damage. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1). Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Inhalation, ingestion, or skin absorption of methanol can cause blindness.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X
2-Butoxyethanol	A3	Group 3		
Quartz	A2	Group 1	Known	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A4 - Not Classifiable as a Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Target Organ Effects

Respiratory system. Liver. Kidney. Central nervous system (CNS).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product Information LC50/96h/Fathead minnows = >750 mg/L

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methyl alcohol	-	LC50 96 h: 13500 - 17600 mg/L flow-through (Lepomis macrochirus) LC50 96 h: 18 - 20 mL/L static (Oncorhynchus mykiss) LC50 96 h: 19500 - 20700 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 28200 mg/L flow-through (Pimephales promelas) LC50 96 h: > 100 mg/L static (Pimephales promelas)	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	-
Propylene glycol	EC50 96 h: = 19000 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 41 - 47 mL/L static (Oncorhynchus mykiss) LC50 96 h: = 51400 mg/L static (Pimephales promelas) LC50 96 h: = 51600 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 710 mg/L (Pimephales promelas)	EC50 = 710 mg/L 30 min	EC50 48 h: > 1000 mg/L Static (Daphnia magna) EC50 24 h: > 10000 mg/L (Daphnia magna)
2-Butoxyethanol		LC50 96 h: = 1490 mg/L static (Lepomis macrochirus) LC50 96 h: = 2950 mg/L (Lepomis macrochirus)		EC50 24 h: 1698 - 1940 mg/L (Daphnia magna) EC50 48 h: > 1000 mg/L (Daphnia magna)

Chemical Name	Log Pow
Methyl alcohol	-0.77
2-Butoxyethanol	0.81

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl alcohol - 67-56-1		Included in waste stream: F039		U154

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Methyl alcohol	Toxic Ignitable

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	All components are listed on the TSCA Inventory.
DSL	All components are listed either on the DSL or NDSL.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Methyl alcohol	67-56-1	5-10	1.0
2-Butoxyethanol	111-76-2	1-5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methyl alcohol	5000 lb		RQ= 2270 kg final RQ RQ= 5000 lb final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Quartz	14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Titanium dioxide	X	X	X	-	X
Quartz	X	X	X	-	X
Methyl alcohol	X	X	X	X	X
2-Butoxyethanol	X	X	X	X	X

International Regulations

Chemical Name	Carcinogen Status	Exposure Limits
Methyl alcohol		Mexico: TWA= 200 ppm Mexico: TWA= 260 mg/m ³ Mexico: STEL= 250 ppm Mexico: STEL= 310 mg/m ³
2-Butoxyethanol		Mexico: TWA 26 ppm Mexico: TWA 120 mg/m ³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m ³
Quartz		Mexico: TWA= 0.1 mg/m ³
Titanium dioxide		Mexico: TWA= 10 mg/m ³ Mexico: STEL= 20 mg/m ³

Canada

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

WHMIS Hazard Class

- D1A Very toxic materials
- D1B Toxic materials
- D2B Toxic materials
- D2A Very toxic materials



Chemical Name	NPRI
Methyl alcohol	X
2-Butoxyethanol	X

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 27-Apr-2011

Revision Date

Revision Note Initial Release.

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication and it does not purport to be all inclusive and shall be used only as a guide. We urge each customer or recipient of this MSDS to study it carefully to become aware of and understand the potential hazards associated with the product. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Any use of the product not in conformance with this MSDS or in combination with any other product or process is the responsibility of the user. Customary precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Remove all soiled and contaminated clothing immediately.

End of Safety Data Sheet