SAFETY DATA SHEET

Revision Date: 05-Aug-2019
Revision Number: 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: MARVELUX EXTERIOR SEMI-GLOSS ENAMEL PASTEL BASE
Product Code: 4171B
Alternate Product Code: 4171B
Product Class: Water thinned paint
Color: All
Recommended use: Paint
Restrictions on use: No information available

Manufacturer: Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC (US): 800-424-9300
CHEMTREC (outside US): (703)-527-3887

2. HAZARDS IDENTIFICATION

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Appearance: liquid
Odor: little or no odor

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available
3. COMPOSITION INFORMATION ON COMPONENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>10 - 15</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Ethoxylated octylphenol</td>
<td>9036-19-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Propanoic acid, 2-methyl-, monoester with 2,2,4-trimethyl-1,3-pentanediol</td>
<td>25265-77-4</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Sodium C14-C16 olefin sulfonate</td>
<td>68439-57-6</td>
<td>0.1 - 0.5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice  
No hazards which require special first aid measures.

Eye Contact  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact  
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation  
Move to fresh air. If symptoms persist, call a physician.

Ingestion  
Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects  
None known.

Notes To Physician  
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.

Specific Hazards Arising From The Chemical  
Closed containers may rupture if exposed to fire or extreme heat.

Sensitivity to mechanical impact  
No

Sensitivity to static discharge  
No

Flash Point Data  
Flash point (°F)  
Not applicable

Flash Point (°C)  
Not applicable

Method  
Not applicable
Flammability Limits In Air

Lower flammability limit: Not applicable
Upper flammability limit: Not applicable

NFPA    Health:  1    Flammability:  0    Instability:  0    Special:  Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions  Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Other Information  Prevent further leakage or spillage if safe to do so.
Environmental precautions  See Section 12 for additional Ecological Information.
Methods for Cleaning Up  Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling  Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage  Keep container tightly closed. Keep out of the reach of children.
Incompatible Materials  No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 mg/m³ - TWA</td>
<td>15 mg/m³ - TWA</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>2 mg/m³ - TWA</td>
<td>5 mg/m³ - TWA</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ - STEL</td>
<td>15 mg/m³ - TWA</td>
</tr>
</tbody>
</table>

Legend
ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits
OSHA - Occupational Safety & Health Administration Exposure Limits
N/E - Not Established
Engineering Measures
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment
Eye/Face Protection
Safety glasses with side-shields.

Skin Protection
Protective gloves and impervious clothing.

Respiratory Protection
In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures
Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>little or no odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>Density (lbs/gal)</td>
<td>9.6 - 10.0</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.15 - 1.19</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity (cps)</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Wt. % Solids</td>
<td>35 - 45</td>
</tr>
<tr>
<td>Vol. % Solids</td>
<td>25 - 35</td>
</tr>
<tr>
<td>Wt. % Volatiles</td>
<td>55 - 65</td>
</tr>
<tr>
<td>Vol. % Volatiles</td>
<td>65 - 75</td>
</tr>
<tr>
<td>VOC Regulatory Limit (g/L)</td>
<td>&lt; 150</td>
</tr>
<tr>
<td>Boiling Point (°F)</td>
<td>212</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>100</td>
</tr>
<tr>
<td>Freezing point (°F)</td>
<td>32</td>
</tr>
<tr>
<td>Freezing Point (°C)</td>
<td>0</td>
</tr>
<tr>
<td>Flash point (°F)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Method</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature (°F)</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition Temperature (°C)</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature (°F)</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical Stability
Stable under normal conditions.

Conditions to avoid
Prevent from freezing.
Incompatible Materials  No materials to be especially mentioned.
Hazardous Decomposition Products  None under normal use.
Possibility of hazardous reactions  None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure  Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information  No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms  No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact  May cause slight irritation.
Skin contact  Substance may cause slight skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation  May cause irritation of respiratory tract.
Ingestion  Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization  No information available
Neurological Effects  No information available.
Mutagenic Effects  No information available.
Reproductive Effects  No information available.
Developmental Effects  No information available.
Target organ effects  No information available.
STOT - single exposure  No information available.
STOT - repeated exposure  No information available.
Other adverse effects  No information available.
Aspiration Hazard  No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)  18373 mg/kg
ATEmix (dermal)  559081 mg/kg

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>&gt; 10000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>= 20 g/kg (Rat)</td>
<td>= 20800 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Ethoxylated octylphenol</td>
<td>= 1700 mg/kg (Rat) = 4190 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>2B - Possible Human Carcinogen</td>
<td>Listed</td>
<td></td>
</tr>
</tbody>
</table>

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend

IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media
No information available.

Ozone
No information available

Component Information
Acute Toxicity to Fish

Titanium dioxide
LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Propylene glycol
LC50: 710 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates

Propylene glycol
EC50: > 10000 mg/L (Daphnia magna - 24 hr.)

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT
Not regulated

ICAO / IATA
Not regulated

IMDG / IMO
Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States  Yes - All components are listed or exempt.
DSL: Canada   Yes - All components are listed or exempt.

Federal Regulations

SARA 311/312 hazardous categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA 313
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:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>CERCLA/SARA 313 (de minimis concentration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>1 - 5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:

None

**US State Regulations**

**California Proposition 65**

⚠️ **WARNING:** Cancer and Reproductive Harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend

X - Listed

16. OTHER INFORMATION

**HMIS**

Health: 1  Flammability: 0  Reactivity: 0  PPE: -

**HMIS Legend**

0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard

X - Consult your supervisor or S.O.P. for "Special" handling instructions.

**Note:** The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

**WARNING!** If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself...
and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By

Product Stewardship Department
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
800-225-5554

Revision Date: 05-Aug-2019
Revision Summary Not available

Disclaimer
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End of Safety Data Sheet