Material Safety Data Sheet

Revision Date: 25-Feb-2009
Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: IMPERVO ALKYD HIGH GLOSS METAL & WOOD ENAMEL
Product Code: C133
Product Class: SOLVENT THINNED PAINT
Color: All

Manufacturer: Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 201-573-9600
www.benjaminmoore.com

Emergency Telephone Number(s):
CHEMTREC: 800-424-9300

2. COMPOSITION INFORMATION ON COMPONENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight % (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydrotreated heavy naphtha, petroleum</td>
<td>64742-48-9</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Solvent naphtha, petroleum, medium aliphatic</td>
<td>64742-88-7</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>C.I. Pigment Green 7</td>
<td>1328-53-6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Xylene</td>
<td>1330-20-7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>C.I. Pigment Blue 15</td>
<td>147-14-8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Silica, amorphous</td>
<td>7631-86-9</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Cobalt Compound</td>
<td>136-52-7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>0.5</td>
</tr>
</tbody>
</table>
3. HAZARDS IDENTIFICATION

**OSHA Regulatory Status**
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential Health Effects**

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

**Acute Effects**

**Eyes**
Contact with eyes may cause irritation.

**Skin**
May cause skin irritation and/or dermatitis.

**Inhalation**
High vapor / aerosol concentrations are irritating to the eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness, unconsciousness, and other central nervous system effects.

**Ingestion**
Ingestion may cause irritation to mucous membranes. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

**Chronic Effects**
Avoid repeated exposure

*See Section 11 for additional Toxicological information.*

**Aggravated Medical Conditions**
None known

**HMIS**
Health: 2*  Flammability: 2  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, Benjamin Moore & Co., 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.*
4. FIRST AID MEASURES

General Advice
If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation
Move to fresh air. If symptoms persist, call a physician.
If not breathing, give artificial respiration. Call a physician immediately.

Ingestion
Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.

Notes To Physician
Treat symptomatically

Protection Of First-Aiders
Use personal protective equipment

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Foam, dry powder or water. 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
Combustible material. Closed containers may rupture if exposed to fire or extreme heat. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Sensitivity To Mechanical Impact
No

Sensitivity To Static Discharge
Yes

Flash Point Data
Flash Point (°F) 110
Flash Point (°C) 43
Flash Point Method PMCC

Flammability Limits In Air
Lower Explosion Limit Not available
Upper Explosion Limit Not available
The ratings assigned by Benjamin Moore & Co. 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
Use personal protective equipment. Remove all sources of ignition.

#### Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

#### Methods For Clean-Up
Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

#### Other Information
None known

### 7. HANDLING AND STORAGE

#### Handling
Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Wear personal protective equipment. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from open flames, hot surfaces and sources of ignition.

#### Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep in properly labeled containers.

#### Storage (additional)
**DANGER** - Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Exposure Limits

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrotreated heavy naphtha, petroleum</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>ACGIH</td>
<td>OSHA</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>10 mg/m³ - TWA</td>
<td>15 mg/m³ - TWA total</td>
</tr>
<tr>
<td>Solvent naphtha, petroleum, medium aliphatic</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Kaolin</td>
<td>2 mg/m³ - TWA</td>
<td>15 mg/m³ - TWA total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ - TWA total</td>
</tr>
<tr>
<td>C.I. Pigment Green 7</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>2 mg/m³ - TWA</td>
<td>15 mg/m³ - TWA total</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ - STEL</td>
<td>5 mg/m³ - TWA</td>
</tr>
<tr>
<td>Carbon black</td>
<td>3.5 mg/m³ - TWA</td>
<td>3.5 mg/m³ - TWA</td>
</tr>
<tr>
<td>Xylene</td>
<td>100 ppm - TWA</td>
<td>100 ppm - TWA</td>
</tr>
<tr>
<td></td>
<td>150 ppm - STEL</td>
<td>435 mg/m³ - TWA</td>
</tr>
<tr>
<td>C.I. Pigment Blue 15</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Silica, amorphous</td>
<td>N/E</td>
<td>- (80)/(% SiO₂) mg/m³ - TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 mppcf - TWA</td>
</tr>
<tr>
<td>Cobalt Compound</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100 ppm - TWA</td>
<td>100 ppm - TWA</td>
</tr>
<tr>
<td></td>
<td>125 ppm - STEL</td>
<td>435 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
Long sleeved clothing. Protective gloves.

Respiratory Protection
In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator specified for paint spray or organic vapors.

Hygiene Measures
Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
liquid

Odor
solvent

Density (lbs/gal)
7.5 - 9.8

Specific Gravity
0.91 - 1.18

pH
Not available

Viscosity (centistokes)
Not available

Evaporation Rate
Not available

Vapor Pressure
Not available

Vapor Density
Not available

Wt. % Solids
55 - 75

Vol. % Solids
45 - 55

Wt. % Volatiles
25 - 45

Vol. % Volatiles
45 - 55

VOC (g/L)
< 380

Boiling Point (°F)
348
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°C)</td>
<td>176</td>
</tr>
<tr>
<td>Freezing Point (°F)</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°F)</td>
<td>110</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>43</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>PMCC</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>Not available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

**Chemical Stability**
Stable under normal conditions. Hazardous polymerisation does not occur.

**Conditions To Avoid**
Keep away from open flames, hot surfaces, static electricity and sources of ignition.

**Incompatible Materials**
Incompatible with strong acids and bases and strong oxidizing agents.

**Hazardous Decomposition Products**
Thermal decomposition can lead to release of irritating gases and vapors.

**Possibility Of Hazardous Reactions**
None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

**Product**
Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.
Component

Hydrotreated heavy naphtha, petroleum
LD50 Oral: > 5,000 mg/kg (Rat) vendor data
LD50 Dermal: > 3,000 mg/kg (Rabbit)

Titanium dioxide
LD50 Oral: > 24000 mg/kg (Rat)
LD50 Dermal: > 10000 mg/m³ (Rabbit)
LC50 Inhalation (Dust): > 6.82 mg/L (Rat, 4 hr.)

Solvent naphtha, petroleum, medium aliphatic
LD50 Oral: > 6240 mg/kg (Rat)
LD50 Dermal: > 3120 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 1400 ppm (Rat, 4 hr.)

Kaolin
LD50 Oral: > 5000 mg/kg (Rat)

Zinc oxide
LD50 Oral: > 8437 mg/kg (Rat)
LC50 Inhalation (Dust): > 5700 mg/m³ (Rat, 4 hr.)

Carbon black
LD50 Oral: > 15400 mg/kg (Rat)
LD50 Dermal: > 3000 mg/kg (Rabbit)

Xylene
LD50 Oral: 4300 mg/kg (Rat)
LD50 Dermal: > 1700 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)
Sensitization: No sensitizing effects known.

C.I. Pigment Blue 15
LD50 Oral: > 15,000 mg/kg (Rat)

Silica, amorphous
LD50 Oral: > 10000 mg/kg (Rat)
LD50 Dermal: 2,000 mg/kg (Rabbit)
LC50 Inhalation (Dust): > 2 mg/L

Ethyl benzene
LD50 Oral: 3500 mg/kg (Rat)
LD50 Dermal: 17800 µg/L (Rabbit)
LC50 Inhalation (Vapor): 55000 mg/m³ (Rat, 2 hr.)

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td>2B - Possible Human Carcinogen</td>
<td></td>
<td>Listed</td>
</tr>
<tr>
<td>Carbon black</td>
<td></td>
<td>2B - Possible Human Carcinogen</td>
<td></td>
<td>Listed</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td></td>
<td>A3</td>
<td>2B - Possible Human Carcinogen</td>
<td>Listed</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
ACGIH - American Conference of Governmental Industrial Hygienists
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Product
Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Component
Acute Toxicity to Fish

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

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available
12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of in accordance with federal, state, and local regulations. Dry, empty containers may be recycled in a can recycling program. 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
Contact Benjamin Moore & Co. for further information.

IMDG / IMO
Contact Benjamin Moore & Co. for further information.

15. REGULATORY INFORMATION

International Inventories

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

Canada DSL
No - Not all of the components are listed.
One or more component is listed on NDSL.

Federal Regulations

SARA 311/312 hazardous categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></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:
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight % (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>5</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

This product may contain trace amounts of (other) SARA reportable chemicals. Contact Benjamin Moore & Co. for further information.

State Regulations

California Proposition 65

This product may contain small amounts of materials known to the state of California to cause cancer or reproductive harm.

State Right-to-Know

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Louisiana</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Kaolin</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Carbon black</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Xylene</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Silica, amorphous</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Legend

X - Listed

16. OTHER INFORMATION

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.
360 Route 206 - P.O. Box 4000
Flanders, NJ 07836
973-252-2593

Revision Date: 25-Feb-2009
Revision Summary: Not available

Disclaimer
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End of MSDS