



BERGER PAINTS BARBADOS LIMITED

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## 1 - Product Identification

Product Name: **Berger Road Marking Paint**  
Product Description: 100% Acrylic Non- Reflectorize and Reflectorize  
Product Code: 2032, 2033

## 2 - Hazards Identification

HMIS Rating: Health = 2 Flammability = 3 Reactivity = 0

### 2.1 Skin Contact

Frequent or prolonged contact may irritate and cause dermatitis  
Low order of toxicity  
Skin contact may aggravate an existing dermatitis condition

### 2.2 Eye Contact

Slightly irritating but not injurious to eye tissue.

### 2.3 Inhalation

High vapour/aerosol concentrations (attainable at elevated temperatures well above ambient) are irritating to the eyes and the respiratory tract and may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effect, including death.

## 3 - Composition

Component	CAS#	Concentration%
<b>Acrylic Resin</b>		<b>14 - 19</b>
Acrylic Polymers	-	49 - 51
Ethylbenzene	100-41-4	5 - 7
Toluene	108-88-3	15 - 17
Xylene	1330-20-7	26 - 28
<b>Pigment</b>		<b>52 - 60</b>
Titanium Dioxide	13463-67-7	10 - 13
Calcium Carbonate	1317-65-3	7 - 38
C.I. Pigment Yellow 34	1344-37-2	16
Glass Oxide	65997-17-3	28
Silicon Dioxide	112926-00-8	1.5
Nepheline Syenite	37244-96-5	7
<b>Rheological Additive</b>	63800-43-5	<b>1</b>
<b>Xylene</b>	1330-20-7	<b>25 - 32</b>

## 4 - First Aid Measures

### 4.1 Skin Contact

Flush immediately with large amounts of water, use a disinfectant soap if available. Cover the irritated skin with an emollient or anti-bacterial cream.  
If irritation persists seek medical attention.  
Remove contaminated clothing and shoes and launder before reuse.

**4.2 Eye Contact**

Check for and remove any contact lenses. Flush eyes immediately with large quantities of water for 15 minutes. Seek medical attention.

**4.3 Inhalation**

Move victim to a ventilated area immediately. Loosen tight clothing such as collar, tie, belt or waistband. If breathing is difficult administer oxygen. If victim is not breathing perform mouth-to-mouth resuscitation. Seek medical attention at once.

**4.4 Ingestion**

If ingested, **do not** induce vomiting unless directed to do so by a medical professional. Seek medical attention immediately. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

**5 - Fire Fighting Measures****5.1 Stability**

Highly flammable in presence of open flames and sparks

Will not autoignite under normal conditions.

Autoignition temperature of the xylenes is 464°C (867.2°F). Flammable limits: LEL=1; UEL=7 @ 77°F

**5.2 Fire Fighting**

Use water spray to cool fire exposed surfaces and to protect personnel. Isolate "fuel" supply from fire.

Use foam, dry chemical or water spray to extinguish fire. Avoid spraying water directly into storage containers due to danger of boilover.

**5.3 Advice to Fire Fighters**

Incomplete combustion can yield carbon monoxide and toxic vapours. Wear self-contained breathing apparatus and protective suit.

Vapours may travel to source of ignition and flash back

Vapours may form explosive mixtures with air. Containers may explode when heated.

**6 - Accidental Release Measures****6.1 Land Spill**

Flammable Liquid. Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, to eliminate focus of possible ignition, and place material into a closed container. Wear protective equipment during clean up.

If large spillage occurs, dike the area to prevent this material from entering water systems or sewers. Warn authorities and residents of affected zones of fire and explosion danger. Prevent Contamination of soil, vegetation and subterranean water.

**6.2 Water Spill**

Remove all sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear.

Remove from surface with suitable absorbents. If allowed by local and environmental authorities, sinking and/or suitable dispersants may be used in non-confined waters.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**7 - Handling and Storage****7.1 Storage Temperature**

Ambient

**7.2 Storage and Transport Pressure (mmHg)**

Atmospheric

**7.3 Storage and Handling**



Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place. Do not handle or store near open flame, heat or other sources of ignition. Protect material from direct sunlight. Avoid prolonged or repeated inhalation of heated vapours or spray mists. Avoid prolonged or repeated skin contact. Excessive exposure to vapours or spray mists can result in headache, dizziness, uncoordination, nausea and loss of consciousness.

## 8 - Exposure Controls/Personal Protection

### 8.1 Exposure Controls

Use only with adequate ventilation. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

### 8.2 Personal Protection

Respiratory Protection: A canister type respirator must be worn to prevent inhalation of vapours and spray mists when the TLV or PEL is exceeded

Ventilation: General ventilation is required during normal use. Local ventilation may be required during certain operations to keep exposure levels of vapours and mists below the limits.

Protective Gloves/Clothing: Chemical resistant nitrile, neoprene or rubber gloves required. Wear protective clothing to prevent skin contact.

Eye Protection: Where contact is likely, wear safety glasses with side shields

## 9 - Physical and Chemical Properties

Physical State	Opaque Suspension
Colour	White, Yellow
Specific Gravity	1.38 - 1.58 Kg/L
Solidification Point	N/A
Boiling Point (Range)	157 - 201°C (315 - 394°F)
Freezing Point	-76°C (-105°F)
Flash Point	18°C (65°F)
Ignition Temperature	466 - 530°C (870 - 986°F)
Water Solubility	Negligible
Viscosity	80 - 90 KU (800 - 1200 cPs)
Odour	Organic Dissolvent

## 10 - Stability and Reactivity

### 10.1 Stability

Stable

### 10.2 Instability Temperature

No data available

### 10.3 Conditions of instability

Heat, ignition sources, incompatibles

### 10.4 Incompatibility

Avoid contact with strong oxidizing agents and acids

### 10.5 Hazardous Decomposition Products

Incomplete combustion can yield carbon monoxide and toxic vapours

### 10.6 Polymerization

Will not occur

**11 - Toxicological Information**

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation.

**Toxicity to Animals:**

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 2119 mg/kg [Mouse]. Acute dermal toxicity (LD50): >1700 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 5000 4 hours [Rat].

**Chronic Effects on Humans:**

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. May cause damage to the following organs: blood, kidneys, liver, mucous membranes, bone marrow, central nervous system (CNS).

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:**

Lowest Lethal Dose: LDL [Human] - Route: Oral; Dose: 50 mg/kg LCL [Man] - Route: Oral; Dose: 10000 ppm/6H

**Special Remarks on Chronic Effects on Humans:**

Detected in maternal milk in human. Passes through the placental barrier in animal. Embryo-toxic and/or foeto-toxic in animal. May cause adverse reproductive effects (male and female fertility (spontaneous abortion and foeto-toxicity)) and birth defects based animal data.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Causes skin irritation. Can be absorbed through skin. Eyes: Causes eye irritation. Inhalation: Vapour causes respiratory tract and mucous membrane irritation. May affect central nervous system and behaviour (General anaesthetic/CNS depressant with effects including headache, weakness, memory loss, irritability, dizziness, giddiness, loss of coordination and judgement, respiratory depression/arrest or difficulty breathing, loss of appetite, nausea, vomiting, shivering, and possible coma and death). May also affects blood, sense organs, liver, and peripheral nerves. Ingestion: May cause gastrointestinal irritation including abdominal pain, vomiting, and nausea. May also affect liver and urinary system/kidneys. May cause effects similar to those of acute inhalation. Chronic Potential Health Effects: Chronic inhalation may affect the urinary system (kidneys) blood (anaemia), bone marrow (hyperplasia of bone marrow) brain/behaviour/Central Nervous system. Chronic inhalation may also cause mucosal bleeding. Chronic ingestion may affect the liver and metabolism (loss of appetite) and may affect urinary system (kidney damage)

**12 - Ecological Information**

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

**13 - Disposal Considerations**

Use non-leaking containers, seal tight and label properly. Dispose of in accordance with applicable local, county, state and federal regulations.

**14 - Transportation Information****14.1 Land Transport (ADR/RID)**

ADR/RID Class:	Flammable liquid
Danger Code (Kemler):	30
UN number:	1866



Packaging Group: III  
Hazard label: 3

**14.2 Maritime Transport (IMDG)**

IMDG class: 3  
UN Number: 1866  
Hazard Label: 3  
Packaging Label: III  
EMS number: F-E, S-E  
Maritime Pollutant: No

**14.3 Air Transport (ICAO-TI and IATA-DGR)**

ICAO-TI/IATA-DGR: 3  
UN Number: 1866  
Hazard Label: 3  
Packaging Group: III  
Proper Shipping Name: Alkyd-Based Enamel Paint

**15 - Regulatory Information**

**EU Regulations**

**15.1 Risk Phrases**

R10 Flammable  
R66 Repeated exposure may cause skin dryness and cracking  
R67 Vapours may cause drowsiness and dizziness

**15.2 Safety Phrases**

S61 Avoid release to the environment. Refer to special instructions/Safety Data Sheet

**16 - Other Information**

S1/2 Keep locked up and out of reach of children.  
S27/28 Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water.  
S29/35 Do not empty into drains. This material and its container must be disposed of in a safe way.

*The information in this MSDS is given in good faith and to the best of our knowledge. It may not be valid for such material used in combinations with any other materials or in any process. No representation, warranty or guarantee is made due to its accuracy, reliability or complaints. We do not accept liability for any loss or damage that may occur from the use of this information.*