



## Material Safety Data Sheet

Revision Date: 05-Feb-2014

Revision Number: 3

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** BENJAMIN MOORE ARBORCOAT EXTERIOR OIL FINISH  
**Product Code** TRANSLUCENT  
**Product Class** K32630  
**Color** SOLVENT THINNED PAINT  
Light brown

**Manufacturer** Benjamin Moore & Co.  
101 Paragon Drive  
Montvale, NJ 07645  
Phone: 855-724-6802  
www.benjaminmoore.com

**Emergency Telephone Number(s)**  
CANUTEC: 613-996-6666

### 2. COMPOSITION INFORMATION ON COMPONENTS

#### Hazardous Components

| Chemical Name                                                    | CAS-No     | Weight % (max) |
|------------------------------------------------------------------|------------|----------------|
| Tung Oil                                                         | 8001-20-5  | 15 - 40%       |
| Distillates, petroleum, hydrotreated light                       | 64742-47-8 | 15 - 40%       |
| Soybean oil, polymer with pentaerythritol and phthalic anhydride | 66070-60-8 | 15 - 40%       |
| 4-Chlorobenzotrifluoride                                         | 98-56-6    | 10 - 30%       |
| Stoddard solvent                                                 | 8052-41-3  | 7 - 13 %       |
| Silica, amorphous                                                | 7631-86-9  | 5 - 10%        |
| Linseed oil, polymer with pentaerythritol and phthalic anhydride | 66070-64-2 | 1 - 5%         |
| 1,2,4-Trimethylbenzene                                           | 95-63-6    | 0.5 - 1%       |
| Ethyl benzene                                                    | 100-41-4   | 0.1 - 0.25%    |
| 2-Butoxyethanol                                                  | 111-76-2   | 0.1 - 0.25%    |
| Methyl ethyl ketoxime                                            | 96-29-7    | 0.1 - 0.25%    |

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

#### **WARNING**

Combustible liquid and vapor. Vapors may be irritating to eyes, nose, throat, and lungs. May cause eye irritation. May cause skin irritation and/or dermatitis. May cause allergic skin reaction.

Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded.

**Appearance** liquid

**Odor** Not available

#### 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. May cause allergic skin reaction.

##### **Inhalation**

May cause irritation of respiratory tract. 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. Prolonged exposure may cause chronic effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** None known

#### **HMIS**

**Health:** 1\*

**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, 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.*

### 4. FIRST AID MEASURES

#### 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.<br>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)                                      | 107                                                                                                                                                                                                                                        |
| Flash Point (°C)                                      | 42                                                                                                                                                                                                                                         |
| Flash Point Method                                    | PMCC                                                                                                                                                                                                                                       |
| Flammability Limits In Air                            |                                                                                                                                                                                                                                            |
| Upper Explosion Limit                                 | Not available                                                                                                                                                                                                                              |
| Lower Explosion Limit                                 | Not available                                                                                                                                                                                                                              |

**NFPA**      **Health:** 1      **Flammability:** 2      **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](http://www.nfpa.org).

## 6. ACCIDENTAL RELEASE MEASURES

|                                  |                                                                                                                                                                                                                                                                                                   |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions</b>      | Use personal protective equipment. Remove all sources of ignition.                                                                                                                                                                                                                                |
| <b>Environmental Precautions</b> | 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. |
| <b>Methods For Clean-Up</b>      | Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.                                                                                                                                                        |
| <b>Other Information</b>         | None known                                                                                                                                                                                                                                                                                        |

## 7. HANDLING AND STORAGE

|                 |                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | 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. |
| <b>Storage</b>  | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep in properly labeled containers.<br><br><b>DANGER</b> - 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 / PERSONAL PROTECTION

### Exposure Limits

#### Hazardous Components

| Chemical Name                              | ACGIH | Alberta | British Columbia                                                                   | Ontario | Quebec |
|--------------------------------------------|-------|---------|------------------------------------------------------------------------------------|---------|--------|
| Tung Oil                                   | N/E   | N/E     | N/E                                                                                | N/E     | N/E    |
| Distillates, petroleum, hydrotreated light | N/E   | N/E     | 200 mg/m <sup>3</sup> - TWA<br>Skin absorption can contribute to overall exposure. | N/E     | N/E    |

|                                                                  |                             |                                                                                                     |                                                             |                                                                      |                                                                                                    |
|------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Soybean oil, polymer with pentaerythritol and phthalic anhydride | N/E                         | N/E                                                                                                 | N/E                                                         | N/E                                                                  | N/E                                                                                                |
| 4-Chlorobenzotrifluoride                                         | 2.5 mg/m <sup>3</sup> - TWA | 2.5 mg/m <sup>3</sup> - TWA                                                                         | 2.5 mg/m <sup>3</sup> - TWA                                 | 2.5 mg/m <sup>3</sup> - TWAEV                                        | 2.5 mg/m <sup>3</sup> - TWAEV                                                                      |
| Stoddard solvent                                                 | 100 ppm - TWA               | 100 ppm - TWA<br>572 mg/m <sup>3</sup> - TWA                                                        | 290 mg/m <sup>3</sup> - TWA<br>580 mg/m <sup>3</sup> - STEL | 525 mg/m <sup>3</sup> - TWAEV                                        | 100 ppm - TWAEV<br>525 mg/m <sup>3</sup> - TWAEV                                                   |
| Silica, amorphous                                                | N/E                         | N/E                                                                                                 | N/E                                                         | N/E                                                                  | N/E                                                                                                |
| Linseed oil, polymer with pentaerythritol and phthalic anhydride | N/E                         | N/E                                                                                                 | N/E                                                         | N/E                                                                  | N/E                                                                                                |
| 1,2,4-Trimethylbenzene                                           | N/E                         | N/E                                                                                                 | N/E                                                         | N/E                                                                  | N/E                                                                                                |
| Ethyl benzene                                                    | 20 ppm - TWA                | 100 ppm - TWA<br>434 mg/m <sup>3</sup> - TWA<br>125 ppm - STEL<br>543 mg/m <sup>3</sup> - STEL      | 20 ppm - TWA                                                | 100 ppm - TWA<br>125 ppm - STEL                                      | 100 ppm - TWAEV<br>434 mg/m <sup>3</sup> - TWAEV<br>125 ppm - STEV<br>543 mg/m <sup>3</sup> - STEV |
| 2-Butoxyethanol                                                  | 20 ppm - TWA                | 20 ppm - TWA<br>97 mg/m <sup>3</sup> - TWA<br>Substance may be readily absorbed through intact skin | 20 ppm - TWA                                                | 20 ppm - TWAEV<br>Absorption through skin, eyes, or mucous membranes | 20 ppm - TWAEV<br>97 mg/m <sup>3</sup> - TWAEV                                                     |
| Methyl ethyl ketoxime                                            | N/E                         | N/E                                                                                                 | N/E                                                         | N/E                                                                  | N/E                                                                                                |

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists  
 Alberta - Alberta Occupational Exposure Limits  
 British Columbia - British Columbia Occupational Exposure Limits  
 Ontario - Ontario Occupational Exposure Limits  
 Quebec - Quebec Occupational 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

Not available

#### Density (lbs/gal)

8.0 - 8.4

#### Specific Gravity

0.95 - 1.01

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                            |               |
|----------------------------|---------------|
| pH                         | Not available |
| Viscosity (centistokes)    | Not available |
| Evaporation Rate           | Not available |
| Vapor Pressure             | Not available |
| Vapor Density              | Not available |
| Wt. % Solids               | 50 - 65       |
| Vol. % Solids              | 45 - 60       |
| Wt. % Volatiles            | 35 - 50       |
| Vol. % Volatiles           | 40 - 55       |
| VOC Regulatory Limit (g/L) | < 350         |
| Boiling Point (°F)         | 279           |
| Boiling Point (°C)         | 137           |
| Freezing Point (°F)        | Not available |
| Freezing Point (°C)        | Not available |
| Flash Point (°F)           | 107           |
| Flash Point (°C)           | 42            |
| Flash Point Method         | PMCC          |
| Upper Explosion Limit      | Not available |
| Lower Explosion Limit      | Not available |

## 10. STABILITY AND REACTIVITY

|                                           |                                                                                       |
|-------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Chemical Stability</b>                 | Stable under normal conditions. Hazardous polymerisation does not occur.              |
| <b>Conditions To Avoid</b>                | Keep away from open flames, hot surfaces, static electricity and sources of ignition. |
| <b>Incompatible Materials</b>             | Incompatible with strong acids and bases and strong oxidizing agents.                 |
| <b>Hazardous Decomposition Products</b>   | Thermal decomposition can lead to release of irritating gases and vapors.             |
| <b>Possibility Of Hazardous Reactions</b> | 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**

Distillates, petroleum, hydrotreated light  
LD50 Oral: > 5,000 mg/kg (Rat)

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LD50 Dermal: > 3,000 mg/kg (Rabbit)

4-Chlorobenzotrifluoride

LD50 Oral: 13000(Rat) mg/kg

LD50 Dermal: 2 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 33 mg/L (Rat, 4 hr.)

Stoddard solvent

LD50 Oral: > 5,000 mg/kg (Rat)

LD50 Dermal: > 3160 mg/kg (Rabbit)

LC50 Inhalation (Vapor): > 6.1 mg/L (Rat)

Silica, amorphous

LD50 Oral: > 5000 mg/kg (Rat)

LD50 Dermal: 2,000 mg/kg (Rabbit)

LC50 Inhalation (Dust): > 2 mg/L

1,2,4-Trimethylbenzene

LD50 Oral: 5000 mg/kg (Rat)

LC50 Inhalation (Vapor): 18000 mg/m<sup>3</sup> (Rat, 4 hr.)

Ethyl benzene

LD50 Oral: 3500 mg/kg (Rat)

LD50 Dermal: > 5000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 55000 mg/m<sup>3</sup> (Rat, 2 hr.)

Sensitization: No sensitizing effects known.

2-Butoxyethanol

LD50 Oral: 470 mg/kg (Rat)

LD50 Dermal: 220 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 2.2 mg/L (Rat, 4 hr.)

Sensitization: No sensitizing effects known.

Methyl ethyl ketoxime

LD50 Oral: 930 mg/kg (Rat)

LD50 Dermal: 200 µL/kg (Rabbit)

LC50 Inhalation (Vapor): > 4.8 mg/L (Rat)

**Chronic Toxicity**

**Carcinogenicity**

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

| <b>Chemical Name</b> | <b>ACGIH</b>                                                                     | <b>IARC</b>                          | <b>NTP</b> | <b>OSHA<br/>Carcinogen<br/>Listed</b> |
|----------------------|----------------------------------------------------------------------------------|--------------------------------------|------------|---------------------------------------|
| Ethyl benzene        | A3 - Confirmed<br>Animal<br>Carcinogen with<br>Unknown<br>Relevance to<br>Humans | 2B - Possible<br>Human<br>Carcinogen |            |                                       |

| Chemical Name   | ACGIH                                                                            | IARC | NTP | OSHA<br>Carcinogen |
|-----------------|----------------------------------------------------------------------------------|------|-----|--------------------|
| 2-Butoxyethanol | A3 - Confirmed<br>Animal<br>Carcinogen with<br>Unknown<br>Relevance to<br>Humans |      |     |                    |

### 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

###### Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

###### 2-Butoxyethanol

LC50: 1490 mg/L (Bluegill sunfish - 96 hr.)

###### Methyl ethyl ketoxime

LC50: 48 mg/L (Bluegill sunfish - 96 hr.)

##### Acute Toxicity to Aquatic Invertebrates

###### Ethyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

###### Methyl ethyl ketoxime

EC50: 750 mg/L (Daphnia magna - 48 hr.)

## 12. ECOLOGICAL INFORMATION

### Acute Toxicity to Aquatic Plants

Ethyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

## 13. DISPOSAL CONSIDERATIONS

### **Waste Disposal Method**

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

### **Empty Container Warning**

Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition.

## 14. TRANSPORT INFORMATION

### **TDG**

|                             |        |
|-----------------------------|--------|
| <b>Proper Shipping Name</b> | Paint  |
| <b>Hazard Class</b>         | 3      |
| <b>UN-No</b>                | UN1263 |
| <b>Packing Group</b>        | III    |

In Canada, Class 3 flammable liquids may be reclassified as non-regulated for domestic ground transportation if they meet the requirements of TDG General Exemption SOR/2008-34.

### **ICAO / IATA**

Contact the preparer for further information.

### **IMDG / IMO**

Contact the preparer for further information.

## 15. REGULATORY INFORMATION

### International Inventories

|                           |                                            |
|---------------------------|--------------------------------------------|
| <b>United States TSCA</b> | Yes - All components are listed or exempt. |
| <b>Canada DSL</b>         | Yes - All components are listed or exempt. |

### National Pollutant Release Inventory (NPRI)

#### **NPRI Parts 1- 4**

This product contains the following Parts 1-4 NPRI chemicals:

## 15. REGULATORY INFORMATION

| <u>Chemical Name</u>     | <u>CAS-No</u> | <u>Weight % (max)</u> |
|--------------------------|---------------|-----------------------|
| 4-Chlorobenzotrifluoride | 98-56-6       | 10 - 30%              |
| 1,2,4-Trimethylbenzene   | 95-63-6       | 0.5 - 1%              |
| Ethyl benzene            | 100-41-4      | 0.1 - 0.25%           |
| 2-Butoxyethanol          | 111-76-2      | 0.1 - 0.25%           |

*This product may contain trace amounts of (other) NPRI Parts I-4 reportable chemicals. Contact the preparer for further information.*

### NPRI Part 5

This product contains the following NPRI Part 5 Chemicals:

| <u>Chemical Name</u>                       | <u>CAS-No</u> | <u>Weight % (max)</u> |
|--------------------------------------------|---------------|-----------------------|
| Distillates, petroleum, hydrotreated light | 64742-47-8    | 15 - 40%              |
| Stoddard solvent                           | 8052-41-3     | 7 - 13 %              |
| 1,2,4-Trimethylbenzene                     | 95-63-6       | 0.5 - 1%              |
| 2-Butoxyethanol                            | 111-76-2      | 0.1 - 0.25%           |

*This product may contain trace amounts of (other) NPRI Part 5 reportable chemicals. Contact the preparer for further information.*

### WHMIS Regulatory Status

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

B3 Combustible liquid  
B6 Reactive flammable material  
D2A Very toxic materials



## 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 logging onto Health Canada @ <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/paint-peinture-eng.php>.

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**Prepared By** Product Stewardship Department  
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**Revision Date:** 05-Feb-2014  
**Revision Summary** No information available

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

K32630

**End of MSDS**