

SAFETY DATA SHEET

Revision Date: 21-Aug-2015

Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

FRESH START ENAMEL UNDERBODY PRIMER WHITE

Product Name Product Code Product Class Color Recommended use Restrictions on use

21700 SOLVENT THINNED PAINT White Paint No information available

Manufacturer

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

Emergency Telephone Number(s)

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

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Danger

Hazard statements May cause an allergic skin reaction May cause cancer Causes damage to organs through prolonged or repeated exposure May be fatal if swallowed and enters airways Flammable liquid and vapor

21700 - FRESH START ENAMEL UNDERBODY PRIMER WHITE



Appearance liquid

Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Contaminated work clothing should not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Keep away from heat/sparks/open flames/hot surfaces, no smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/equipment Use only non-sparking tools Take precautionary measures against static discharge

Precautionary Statements - Response

If exposed or concerned get medical attention **Skin** If skin irritation or rash occurs get medical attention Wash contaminated clothing before reuse If on skin (or hair) take off immediately all contaminated clothing. Rinse skin with water **Ingestion** If swallowed immediately call a POISON CENTER or physician Do NOT induce vomiting **Fire**

In case of fire use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not Applicable

Other information

No information available

Odor little or no odor

Other Hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight % (max)
Limestone	1317-65-3	50
Hydrotreated heavy naphtha, petroleum	64742-48-9	25
Titanium dioxide	13463-67-7	15
Cristobalite	14464-46-1	5
Silica, crystalline	14808-60-7	0.5
Methyl ethyl ketoxime	96-29-7	0.5
Ethyl benzene	100-41-4	0.5

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. Wash clothing before reuse. Destroy contaminated articles such as shoes.	
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. Aspiration hazard if swallowed - can enter lungs and cause damage.	
Protection Of First-Aiders	Use personal protective equipment.	
Most Important Symptoms/Effects	May cause allergic skin reaction.	
Notes To Physician	Aspiration hazard.	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing MediaFoam, dry powder or water. Use extinguishing measures
that are appropriate to local circumstances and the
surrounding environment.Protective Equipment And Precautions For
FirefightersAs 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) Flash Point (°C) Flash Point Method Flammability Limits In Air	127.0 52.8 PMCC	
Lower Explosion Limit Upper Explosion Limit	Not available Not available	
NFPA Health: 1 Flammability: 2 Inst	ability: 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	Use personal protective equipment. Remove all sources of ignition.		
Other Information	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.		
Environmental Precautions	See Section 12 for additional Ecological Information.		
Methods For Clean-Up	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.		
	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 away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children.
	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.
Incompatible Materials	Incompatible with strong acids and bases Strong oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Chemical Name	ACGIH	OSHA	
Limestone	N/E	15 mg/m ³ - TWA total	
		5 mg/m³ - TWA	
Titanium dioxide	10 mg/m³ - TWA	15 mg/m³ - TWA	
Cristobalite	0.025 mg/m³ - TWA	respirable - (1/2)(10)/(%SiO2 + 2) mg/m ³ TWA respirable - (1/2)(250)/(%SiO2 + 5) mppcf TWA total dust - (1/2)(30)/(%SiO2 + 2) mg/m ³ TWA	
Silica, crystalline	0.025 mg/m³ - TWA	respirable - (10)/(%SiO2 + 2) mg/m ³ TWA respirable - (250)/(%SiO2 + 5) mppcf TWA total dust - (30)/(%SiO2 + 2) mg/m ³ TWA	
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 435 mg/m³ - TWA	

Legend

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection	Safety glasses with side-shields If splashes are likely to occur, wear: Tightly fitting safety goggles
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 Odor **Odor Threshold** Density (lbs/gal) **Specific Gravity** pH Viscosity (cps) Solubility Water Solubility **Evaporation Rate** Vapor Pressure Vapor Density Wt. % Solids Vol. % Solids Wt. % Volatiles Vol. % Volatiles VOC Regulatory Limit (g/L) Boiling Point (°F) **Boiling Point (°C)** Freezing Point (°F) Freezing Point (°C) Flash Point (°F) Flash Point (°C) **Flash Point Method** Flammability (solid, gas) **Upper Explosion Limit** Lower Explosion Limit Autoignition Temperature (°F) Autoignition Temperature (°C) **Decomposition Temperature (°F) Decomposition Temperature (°C)** Partition Coefficient (n-octanol/water)

liquid little or no odor No information available 12.5 - 12.8 1.49 - 1.54 No information available 75 - 85 50 - 60 15 - 25 40 - 50 < 350 279 137 No information available No information available 127.0 52.8 PMCC Not applicable No information available No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
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, 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

Product Information	
Information on likely routes of e	exposure
Principal Routes of Exposure	Eye contact, skin contact and inhalation.
Acute Toxicity	
Product Information	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.
Information on toxicological eff	ects
Symptoms	No information available.
Delayed and immediate effects	as well as chronic effects from short and long-term exposure
Eye contact Skin contact	Contact with eyes may cause irritation. May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the
Ingestion	skin and produce dermatitis. 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.
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.
Sensitization:	May cause an allergic skin reaction.
Neurological Effects Mutagenic Effects	No information available. No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.
Target Organ Effects	No information available.
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure if inhaled. Contains: Crystalline Silica which has been determined to be carcinogenic to humans by IARC (1) when in respirable form. Risk of cancer depends on duration and level of inhalation exposure to spray mist or dust from sanding the dried paint.
STOT - single exposure	No information available.
Other adverse effects	No information available.
Aspiration Hazard	May be harmful if swallowed and enters airways. 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.
Numerical measures of toxicity	
The following values are calcula	ated based on chapter 3.1 of the GHS document
ATEmix (oral)	18079 mg/kg

ATEmix (oral)	18079 mg/kg
ATEmix (dermal)	14358 mg/kg

<u>Component</u>

Acute Toxicity

Limestone LD50 Oral: 6,450 mg/kg (Rat) vendor data Hydrotreated heavy naphtha, petroleum LD50 Oral: > 5,000 mg/kg (Rat) vendor data LD50 Dermal: > 3,160 mg/kg (Rabbit) Titanium dioxide LD50 Oral: > 10000 mg/kg (Rat) LD50 Dermal: > 10000 mg/m³ (Rabbit) LC50 Inhalation (Dust): > 6.82 mg/L (Rat, 4 hr.) Silica, crystalline LD50 Oral: 500 mg/kg (Rat) vendor data Methyl ethyl ketoxime LD50 Oral: 930 mg/kg (Rat) LD50 Dermal: 200 µL/kg (Rabbit) LC50 Inhalation (Vapor): > 4.8 mg/L (Rat) Ethyl benzene LD50 Oral: 3500 mg/kg (Rat) LD50 Dermal: > 5000 mg/kg (Rabbit) LC50 Inhalation (Vapor): 55000 mg/m³ (Rat, 2 hr.)

Carcinogenicity

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

Chemical Name	IARC	NTP	OSHA Carcinogen
	2B - Possible Human		Listed
Titanium dioxide	Carcinogen		
	1 - Human Carcinogen		Listed
Cristobalite	-		
	1 - Human Carcinogen	Known Human	Listed
Silica, crystalline		Carcinogen	
	2B - Possible Human		Listed
Ethyl benzene	Carcinogen		

Crystalline Silica has been determined to be carcinogenic to humans by IARC (1) when in respirable form. Risk of cancer depends on duration and level of inhalation exposure to spray mist or dust from sanding the dried paint. 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 / Accumulation

No information available.

Mobility in Environmental Media

No information available.

<u>Ozone</u>

No information available

Component

Acute Toxicity to Fish

<u>Titanium dioxide</u> LC50: > 1000 mg/L (Fathead Minnow - 96 hr.) <u>Methyl ethyl ketoxime</u> LC50: 48 mg/L (Bluegill sunfish - 96 hr.) <u>Ethyl benzene</u> LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates

Methyl ethyl ketoxime EC50: 750 mg/L (Daphnia magna - 48 hr.) Ethyl benzene EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

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

DOT

Proper Shipping Name Hazard Class	Paint 3
UN-No	UN1263
Packing Group	III
Description	UN1263, Paint, 3, III,

In the US this material may be reclassified as a Combustible Liquid and is not regulated in containers of less than 119 gallons (450 liters) via surface transportation (refer to 49CFR173.120(b)(2) for further information).

ICAO / IATA	Contact the preparer for further information.
IMDG / IMO	Contact the preparer for further information.

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

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

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:

Chemical Name	CAS-No	Weight % (max)	CERCLA/SARA 313 (de minimis concentration)
Ethyl benzene	100-41-4	0.5	0.1
Clean Air Act, Section 112 Hazardou This product contains the following HA		<u>Ps) (see 40 CFR 61)</u>	
Chemical Name	CAS-No	Weight % (max)	Hazardous Air Pollutant (HAP)
Ethyl benzene	100-41-4	0.5	Listed

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

Chemical Name	Massachusetts	New Jersey	Pennsylvania
Limestone	X	X	X
Titanium dioxide	Х	X	X
Cristobalite	Х	X	X
Silica, crystalline	X	X	Х
Ethyl benzene	Х	Х	X

Legend

X - Listed

16. OTHER INFORMATION

PPE: -

HMIS Health: 1* Flammability: 2 Reactivity: 0

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 855-724-6802
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END OF SAFETY DATA SHEET