



LENMAR®

Material Safety Data Sheet

Revision Date: 09-Oct-2013

Revision Number: 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name MEGAVAR W.W. CONVERSION VARNISH - FLAT
Product Code 1M-4301FR
Product Class FINISH COATING
Color All

Manufacturer Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 800-225-5554
lenmar-coatings.com

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

2. COMPOSITION INFORMATION ON COMPONENTS

Hazardous Components

Chemical Name	CAS-No	Weight % (max)
n-Butyl acetate	123-86-4	15 - 40%
Isobutyl alcohol	78-83-1	7 - 13 %
Ethanol	64-17-5	7 - 13 %
Propylene glycol monomethyl ether acetate	108-65-6	7 - 13 %
Acetone	67-64-1	5 - 10%
VM&P naphtha	64742-89-8	3 - 7%
Toluene	108-88-3	1 - 5%
Paraffin waxes and Hydrocarbon waxes, microcryst.	63231-60-7	1 - 5%
Silica, amorphous	7631-86-9	1 - 5%
Isopropyl alcohol	67-63-0	1 - 5%
Methyl ethyl ketoxime	96-29-7	0.1 - 0.25%
2-Butoxyethanol	111-76-2	0.1 - 0.25%
Ethyl benzene	100-41-4	0.1 - 0.25%

3. HAZARDS IDENTIFICATION

3. HAZARDS IDENTIFICATION

Emergency Overview

DANGER

Flammable. Vapors may cause flash fire or explosion. Vapor harmful. Harmful if swallowed. Harmful by inhalation. Vapors may be irritating to eyes, nose, throat, and lungs. May cause skin irritation and/or dermatitis. May cause allergic skin reaction.

IMPORTANT: Designed to be mixed with other components. Mixture will have hazards of all components.

Appearance liquid

Odor solvent

Potential Health Effects

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

Acute Effects

Eyes

Contact with eyes may cause irritation. Vapor may cause irritation with symptoms of burning and tearing.

Skin

May cause skin irritation and/or dermatitis. May cause allergic skin reaction.

Inhalation

Prolonged contact may cause severe skin irritation with local redness and discomfort. Harmful by 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

Harmful if swallowed. 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. May cause liver damage. May cause kidney damage.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions None known

HMIS **Health: 2*** **Flammability: 3** **Reactivity: 1** **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

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

Flammable Properties	Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause flash fire.
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	Flammable. Flash back possible over considerable distance. Keep product and empty container away from heat and sources of ignition. Closed containers may rupture if exposed to fire or extreme heat. 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)	39
Flash Point (°C)	4
Flash Point Method	PMCC
Flammability Limits In Air	
Upper Explosion Limit	Not available
Lower Explosion Limit	Not available

NFPA **Health: 2** **Flammability: 3** **Instability: 1** **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

Remove all sources of ignition. Take precautions to prevent flashback. Ground and bond all containers and handling equipment. Take precautionary measures against static discharges. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

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. Use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. Clean contaminated surface thoroughly.

Other Information

None known

7. HANDLING AND STORAGE

Handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in ventilated areas. Prevent vapor build-up by providing adequate ventilation during and after use.

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 heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Ignition and/or flash back may occur.

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.

Technical measures/Precautions Ensure adequate ventilation. Use only where airflow will keep vapors from building up in or near the work area in adjoining rooms. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing and disposal of flammable liquids.
Dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. All equipment should be non-sparking and explosion proof. Use explosion proof electrical equipment for ventilation, lighting and material handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Hazardous Components

Chemical Name	ACGIH	Alberta	British Columbia	Ontario	Quebec
n-Butyl acetate	150 ppm - TWA 200 ppm - STEL	150 ppm - TWA 713 mg/m ³ - TWA 200 ppm - STEL 950 mg/m ³ - STEL	20 ppm - TWA	150 ppm - TWAEV 710 mg/m ³ - TWAEV 200 ppm - STEV 950 mg/m ³ - STEV	150 ppm - TWAEV 713 mg/m ³ - TWAEV 200 ppm - STEV 950 mg/m ³ - STEV
Isobutyl alcohol	50 ppm - TWA	152 mg/m ³ - TWA 50 ppm - TWA	50 ppm - TWA	150 mg/m ³ - TWAEV 50 ppm - TWAEV	152 mg/m ³ - TWAEV 50 ppm - TWAEV
Ethanol	1000 ppm - STEL	1000 ppm - TWA 1880 mg/m ³ - TWA	1000 ppm - TWA	1000 ppm - TWAEV 1900 mg/m ³ - TWAEV	1000 ppm - TWAEV 1880 mg/m ³ - TWAEV
Propylene glycol monomethyl ether acetate	N/E	N/E	50 ppm - TWA 75 ppm - STEL	270 mg/m ³ - TWAEV 50 ppm - TWAEV	N/E
Acetone	500 ppm - TWA 750 ppm - STEL	1800 mg/m ³ - TWA 750 ppm - TWA 1000 ppm - STEL 2400 mg/m ³ - STEL	250 ppm - TWA 500 ppm - STEL	500 ppm - TWAEV 750 ppm - STEV	1190 mg/m ³ - TWAEV 500 ppm - TWAEV 1000 ppm - STEV 2380 mg/m ³ - STEV
VM&P naphtha	N/E	N/E	N/E	N/E	N/E
Toluene	20 ppm - TWA	188 mg/m ³ - TWA 50 ppm - TWA Substance may be readily absorbed through intact skin	20 ppm - TWA Adverse reproductive effect	20 ppm - TWAEV	188 mg/m ³ - TWAEV 50 ppm - TWAEV Skin absorption can contribute to overall exposure.
Paraffin waxes and Hydrocarbon waxes, microcryst.	N/E	N/E	N/E	N/E	N/E
Silica, amorphous	N/E	N/E	N/E	N/E	N/E

Isopropyl alcohol	200 ppm - TWA 400 ppm - STEL	400 ppm - TWA 983 mg/m ³ - TWA 1230 mg/m ³ - STEL 500 ppm - STEL	200 ppm - TWA 400 ppm - STEL	200 ppm - TWAEV 400 ppm - STEV	400 ppm - TWAEV 985 mg/m ³ - TWAEV 1230 mg/m ³ - STEV 500 ppm - STEV
Methyl ethyl ketoxime	N/E	N/E	N/E	N/E	N/E
2-Butoxyethanol	20 ppm - TWA	20 ppm - TWA 97 mg/m ³ - TWA Substance may be readily absorbed through intact skin	20 ppm - TWA	20 ppm - TWAEV Absorption through skin, eyes, or mucous membranes	20 ppm - TWAEV 97 mg/m ³ - TWAEV
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 434 mg/m ³ - TWA 125 ppm - STEL 543 mg/m ³ - STEL	20 ppm - TWA	100 ppm - TWA 125 ppm - STEL	100 ppm - TWAEV 434 mg/m ³ - TWAEV 125 ppm - STEV 543 mg/m ³ - STEV

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**
- Skin Protection**
- Respiratory Protection**

Safety glasses with side-shields.
 Long sleeved clothing. Protective gloves.
 Use only with adequate ventilation. 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)	7.7 - 8.1
Specific Gravity	0.92 - 0.97
pH	Not available
Viscosity (centistokes)	Not available
Evaporation Rate	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Wt. % Solids	35 - 45

9. PHYSICAL AND CHEMICAL PROPERTIES

Vol. % Solids	25 - 35
Wt. % Volatiles	55 - 65
Vol. % Volatiles	65 - 75
VOC Regulatory Limit (g/L)	<680
Boiling Point (°F)	132
Boiling Point (°C)	56
Freezing Point (°F)	Not available
Freezing Point (°C)	Not available
Flash Point (°F)	39
Flash Point (°C)	4
Flash Point Method	PMCC
Upper Explosion Limit	Not available
Lower Explosion Limit	Not available

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. Sparks. Elevated temperature.
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

n-Butyl acetate

LD50 Oral: 10768 mg/kg (Rat)

LD50 Dermal: > 17600 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 390 ppm (Rat, 4 hr.)

Sensitization: non-sensitizing (guinea pig)

Isobutyl alcohol

LD50 Oral: 2460 mg/kg (Rat)
LD50 Dermal: 3400 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 19200 mg/m³ (Rat, 4 hr.)

Ethanol

LD50 Oral: 7060 mg/kg (Rat)
LC50 Inhalation (Vapor): 20000 ppm (Rat, 10 hr.)

Propylene glycol monomethyl ether acetate

LD50 Oral: 8532 mg/kg (Rat)
LD50 Dermal: > 5000 mg/kg (Rabbit)
LC50 Inhalation (Vapor): > 4345 ppm

Acetone

LD50 Oral: 5800 mg/kg (Rat)

Toluene

LD50 Oral: 636 mg/kg (Rat)
LD50 Dermal: 14100 µL/kg (Rabbit)
LC50 Inhalation (Vapor): 49000 mg/m³ (Rat, 4 hr.)

Silica, amorphous

LD50 Oral: > 5000 mg/kg (Rat)
LD50 Dermal: 2,000 mg/kg (Rabbit)
LC50 Inhalation (Dust): > 2 mg/L

Isopropyl alcohol

LD50 Oral: 5,000-5,045 mg/kg (Rat)
LD50 Dermal: 12,800 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 16,000 ppm (Rat)

Methyl ethyl ketoxime

LD50 Oral: 930 mg/kg (Rat)
LD50 Dermal: 200 µL/kg (Rabbit)
LC50 Inhalation (Vapor): > 4.8 mg/L (Rat)

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.

Ethyl benzene

LD50 Oral: 3500 mg/kg (Rat)
LD50 Dermal: > 5000 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 55000 mg/m³ (Rat, 2 hr.)
Sensitization: No sensitizing effects known.

Chronic Toxicity

Carcinogenicity

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

Chemical Name	ACGIH	IARC	NTP	OSHA Carcinogen
Ethanol	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans			
2-Butoxyethanol	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans			
Ethyl benzene	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	2B - Possible Human Carcinogen		Listed

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

No information available

n-Butyl acetate

12. ECOLOGICAL INFORMATION

LC50: 18 mg/L (Fathead Minnow - 96 hr.)

Acetone

LC50: 8300(Bluegill - 96 hr.) mg/L

Methyl ethyl ketoxime

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

2-Butoxyethanol

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

Ethyl benzene

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

Acute Toxicity to Aquatic Invertebrates

No information available

n-Butyl acetate

EC50: 72.8 mg/L (Daphnia magna - 48 hr.)

Acetone

EC50: 12600 mg/L (Daphnia magna - 48 hr.)

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

No information available

n-Butyl acetate

EC50: 674.7 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

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. 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..

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

Proper Shipping Name	Paint
Hazard Class	3
UN-No	UN1263
Packing Group	II

ICAO / IATA Contact the preparer for further information.

IMDG / IMO Contact the preparer for further information.

15. REGULATORY INFORMATION

International Inventories

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

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>
n-Butyl acetate	123-86-4	15 - 40%
Isobutyl alcohol	78-83-1	7 - 13 %
Ethanol	64-17-5	7 - 13 %
Propylene glycol monomethyl ether acetate	108-65-6	7 - 13 %
Acetone	67-64-1	5 - 10%
Toluene	108-88-3	1 - 5%
Isopropyl alcohol	67-63-0	1 - 5%
2-Butoxyethanol	111-76-2	0.1 - 0.25%
Ethyl benzene	100-41-4	0.1 - 0.25%

This product may contain trace amounts of (other) NPRI Parts 1-4 reportable chemicals. Contact the preparer for further information.

NPRI Part 5

This product contains the following NPRI Part 5 Chemicals:

15. REGULATORY INFORMATION

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>
n-Butyl acetate	123-86-4	15 - 40%
Ethanol	64-17-5	7 - 13 %
Propylene glycol monomethyl ether acetate	108-65-6	7 - 13 %
VM&P naphtha	64742-89-8	3 - 7%
Toluene	108-88-3	1 - 5%
Isopropyl alcohol	67-63-0	1 - 5%
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

B2 Flammable liquid

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>.

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

Revision Date: 09-Oct-2013
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.

1M-4301FR
End of MSDS