

Revision Date: 10-Jul-2018

Revision Number: 4

1. PRODUCT AND COMPANY IDENTIFICATION

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

275 VOC WATER WHITE NITROCELLULOSE LACQUER SATIN 1LL-2314 TK1101

TK1101 LACQUER All Paint No information available

Manufacturer

Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 Phone: 1-866-708-9180 lenmar-coatings.com

Emergency Telephone

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 corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Label elements

Danger

Hazard statements

Causes skin irritation Causes serious eye irritation Suspected of causing cancer May damage fertility or the unborn child May cause drowsiness or dizziness Highly flammable liquid and vapor

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Appearance liquid

Odor little or no odor

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 Wash face, hands and any exposed skin thoroughly after handling Wear eye/face protection Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 Keep cool **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

Skin

If skin irritation occurs: Get medical advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing **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 container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

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

Other information

No information available

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Acetone	67-64-1	60
cellulose, nitrate	9004-70-0	10
4-Chlorobenzotrifluoride	98-56-6	10
Butyl benzyl phthalate	85-68-7	5
Soybean oil, epoxidized	8013-07-8	5
Isopropyl alcohol	67-63-0	5
2-Heptanone	110-43-0	5
2,6-Dimethyl-4-Heptanone	108-83-8	5
Toluene	108-88-3	0.5
Ethyl benzene	100-41-4	0.5

4. FIRST AID MEASURES

Description of 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. If eye irritation persists, consult a specialist.
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.
Protection Of First-Aiders	Use personal protective equipment.
Most Important Symptoms/Effects	No information available.
Notes To Physician	Treat symptomatically.
	5. FIRE-FIGHTING MEASURES
Flowmable Droportion	Vanara may traval considerable distance to a source of

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.	
Hazardous combustion products	Burning may result in carbon dioxide, carbon monoxide and other combustion products of varying composition which may be toxic and/or irritating.	
Specific Hazards Arising From The Chemical	Flammable. 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) Method	1 -17 PMCC	
Flammability Limits In Air		
Lower flammability limit: Upper flammability limit:	Not available Not available	
NFPA Health: 1 Flammability: 3	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.

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.
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 Cleaning 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.
	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.
	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 and strong oxidizing agents.
Technical measures/Precautio	ns 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

Chemical name	ACGIH TLV	OSHA PEL
Acetone	250 ppm - TWA	1000 ppm - TWA
	500 ppm - STEL	2400 mg/m ³ - TWA
4-Chlorobenzotrifluoride	2.5 mg/m ³ - TWA	2.5 mg/m ³ - TWA
Isopropyl alcohol	200 ppm - TWA	400 ppm - TWA

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	400 ppm - STEL	980 mg/m³ - TWA
2-Heptanone	50 ppm - TWA	100 ppm - TWA 465 mg/m³ - TWA
2,6-Dimethyl-4-Heptanone	25 ppm - TWA	50 ppm - TWA 290 mg/m³ - TWA
Toluene	20 ppm - TWA	200 ppm - TWA 300 ppm - Ceiling
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 435 mg/m³ - TWA

Legend

ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits OSHA - Occupational Safety & Health Administration Exposure Limits N/E - Not Established

Appropriate engineering

controls

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	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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Odor Odor Threshold Density (lbs/gal) Specific Gravity pH Viscosity (cps) Solubility(ies) Water solubility Evaporation Rate Vapor pressure @20 °C (kPa) Vapor density Wt. % Solids Vol. % Solids Wt. % Volatiles Vol. % Volatiles VoC Regulatory Limit (g/L) Boiling Point (°F)	liquid little or no odor No information available 7.5 - 7.9 0.90 - 0.94 No information available No information available No information available No information available No information available No information available 20 - 30 15 - 25 70 - 80 75 - 85 < 275 132
Boiling Point (°C)	56

Freezing Point (°F) Freezing Point (°C) Flash Point (°C) Flash Point (°C) Method Flammability (solid, gas) Upper flammability limit: Lower flammability limit: Autoignition Temperature (°F) Autoignition Temperature (°C) Decomposition Temperature (°C) Partition coefficient No information available No information available 1 -17 PMCC Not applicable No information available Revision Date: 10-Jul-2018

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Conditions to avoid

Incompatible Materials

Hazardous Decomposition Products

Possibility of hazardous reactions

No data available

Stable under normal conditions. Hazardous polymerisation does not occur.

Keep away from open flames, hot surfaces, static electricity and sources of ignition. Sparks. Elevated temperature.

Incompatible with strong acids and bases and strong oxidizing agents.

Thermal decomposition can lead to release of irritating gases and vapors.

None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information		
Information on likely routes of 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.	
Symptoms related to the physical, chemical and toxicological characteristics		
Symptoms	No information available	
Delayed and immediate effects as well as chronic effects from short and long-term exposure		

Eye contact Skin contact	Causes serious eye irritation. May cause redness, itching, and pain. May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the skin and produce dermatitis.
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.
Inhalation	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.
Sensitization	No information available
Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	May damage fertility or the unborn child.
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. May cause disorder and damage to the. liver. kidney. spleen. blood.
STOT - single exposure	May cause disorder and damage to the. Respiratory system. Central nervous system.
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 calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	6575 mg/kg
ATEmix (dermal)	4156 mg/kg
ATEmix (inhalation-dust/mist)	102.3 mg/L
ATEmix (inhalation-vapor)	570 mg/Ľ

Acute Toxicity Component Information

Acetone LD50 Oral: 5800 mg/kg (Rat) 4-Chlorobenzotrifluoride LD50 Oral: (Rat) mg/kg LD50 Dermal: mg/kg (Rabbit) LC50 Inhalation (Vapor): mg/L (Rat, 4 hr.) Isopropyl alcohol LD50 Oral: mg/kg (Rat) LD50 Dermal: mg/kg (Rabbit) LC50 Inhalation (Vapor): ppm (Rat) 2-Heptanone LD50 Oral: 1670 mg/kg (Rat) LD50 Dermal: 12600 µL/kg (Rabbit) 2,6-Dimethyl-4-Heptanone LD50 Oral: mg/kg (Rat) LD50 Dermal: mg/kg (Rabbit)

Toluene LD50 Oral: 636 mg/kg (Rat) LD50 Dermal: 14100 μL/kg (Rabbit) LC50 Inhalation (Vapor): 49000 mg/m³ (Rat, 4 hr.) <u>Ethyl benzene</u> LD50 Oral: mg/kg (Rat) LD50 Dermal: > mg/kg (Rabbit) LC50 Inhalation (Vapor): 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
	2B - Possible Human		Listed
Ethyl benzene	Carcinogen		

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

There is no data for this product.

Mobility in Environmental Media

No information available.

Ozone

Not applicable

Component Information

Acute Toxicity to Fish

<u>Acetone</u> LC50: 8300 (Bluegill - 96 hr.) mg/L <u>Ethyl benzene</u> LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates

<u>Acetone</u> EC50: 12600 mg/L (Daphnia magna - 48 hr.) <u>Ethyl benzene</u> 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.)

	15. REGULATORY INFORMATION	
IMDG / IMO	Contact the preparer for further information.	
ICAO / IATA	Contact the preparer for further information.	
Proper Shipping Name Hazard class UN-No. Packing Group Description	3 UN1263 II UN1263, PAINT, 3, II	
DOT	PAINT	
	14. TRANSPORT INFORMATION	
Empty Container Warning	Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition.	
Waste Disposal Method	Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.	
	13. DISPOSAL CONSIDERATIONS	

International Inventories

TSCA: United States	Yes - All components are listed or exempt.
DSL: Canada	No - Not all of the components are listed.
	One or more component is listed on NDSL.

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:

<u>Chemical name</u>	CAS No.	Weight-%	CERCLA/SARA 313 (de minimis concentration)
Isopropyl alcohol	67-63-0	5	1.0
Ethyl benzene	100-41-4	0.5	0.1

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61) This product contains the following HAPs:

Chemical name	CAS No.	Weight-%	Hazardous Air Pollutant
			<u>(HAP)</u>
Toluene	108-88-3	0.5	Listed
Ethyl benzene	100-41-4	0.5	Listed

US State Regulations

California Proposition 65

MARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Acetone	Х	X	Х
cellulose, nitrate	Х	X	Х
4-Chlorobenzotrifluoride		X	
Butyl benzyl phthalate	Х	Х	Х
Isopropyl alcohol	Х	Х	Х
2-Heptanone	Х	X	Х
2,6-Dimethyl-4-Heptanone	Х	X	Х
2-Butoxyethanol	X	Х	Х

Legend

X - Listed

16. OTHER INFORMATION

HMIS -	Health: 1*	Flammability: 3	Reactivity: 0	PPE: -
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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 800-225-5554
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END OF SAFETY DATA SHEET