



LENMAR[®]

SAFETY DATA SHEET

Revision Date: 10-Jul-2018

Revision Number: 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DURALAQ NITROCELLULOSE LACQUER SATIN
Product Code 1K02-4774
Alternate Product Code TR0401
Product Class LACQUER
Color All
Recommended use Paint
Restrictions on use 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)

Acute toxicity - Oral	Category 4
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 1
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Label elements

Danger

Hazard statements

Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
May damage fertility or the unborn child

Causes damage to organs
May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Highly flammable liquid and vapor



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
Do not eat, drink or smoke when using this product
Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
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

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician

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

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

Rinse mouth

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

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Toluene	108-88-3	20
Titanium dioxide	13463-67-7	20
Xylene	1330-20-7	10
Isobutyl acetate	110-19-0	10
n-Butyl acetate	123-86-4	10
cellulose, nitrate	9004-70-0	5
Ethyl acetate	141-78-6	5
Methyl alcohol	67-56-1	5
Butyl benzyl phthalate	85-68-7	5
Ethyl benzene	100-41-4	5
Isopropyl alcohol	67-63-0	5
2-Pentanone, 4-methyl-	108-10-1	5
n-Butyl alcohol	71-36-3	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

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. 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
Method	PMCC
Flammability Limits In Air	
Lower flammability limit:	Not available
Upper flammability 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.
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	<p>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.</p> <p>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.</p>
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.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
Technical measures/Precautions	<p>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.</p> <p>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.</p>

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Toluene	20 ppm - TWA	200 ppm - TWA 300 ppm - Ceiling
Titanium dioxide	10 mg/m ³ - TWA	15 mg/m ³ - TWA
Xylene	100 ppm - TWA	100 ppm - TWA

	150 ppm - STEL	435 mg/m ³ - TWA
Isobutyl acetate	150 ppm - TWA	150 ppm - TWA 700 mg/m ³ - TWA
n-Butyl acetate	150 ppm - TWA 200 ppm - STEL	150 ppm - TWA 710 mg/m ³ - TWA
Ethyl acetate	400 ppm - TWA	400 ppm - TWA 1400 mg/m ³ - TWA
Methyl alcohol	200 ppm - TWA 250 ppm - STEL Skin	200 ppm - TWA 260 mg/m ³ - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 435 mg/m ³ - TWA
Isopropyl alcohol	200 ppm - TWA 400 ppm - STEL	400 ppm - TWA 980 mg/m ³ - TWA
2-Pentanone, 4-methyl-	20 ppm - TWA 75 ppm - STEL	100 ppm - TWA 410 mg/m ³ - TWA
n-Butyl alcohol	20 ppm - TWA	100 ppm - TWA 300 mg/m ³ - 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	liquid
Odor	little or no odor
Odor Threshold	No information available
Density (lbs/gal)	8.8 - 9.2
Specific Gravity	1.06 - 1.10
pH	No information available
Viscosity (cps)	No information available
Solubility(ies)	No information available
Water solubility	No information available
Evaporation Rate	No information available
Vapor pressure @20 °C (kPa)	No information available

Vapor density	No information available
Wt. % Solids	40 - 50
Vol. % Solids	25 - 35
Wt. % Volatiles	50 - 60
Vol. % Volatiles	65 - 75
VOC Regulatory Limit (g/L)	< 680
Boiling Point (°F)	149
Boiling Point (°C)	65
Freezing Point (°F)	No information available
Freezing Point (°C)	No information available
Flash Point (°F)	39
Flash Point (°C)	4
Method	PMCC
Flammability (solid, gas)	Not applicable
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
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

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	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	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.
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)	1693 mg/kg
ATEmix (dermal)	5527 mg/kg
ATEmix (inhalation-dust/mist)	6.5 mg/L
ATEmix (inhalation-vapor)	1061.6 mg/L

Acute Toxicity

Component Information

Toluene

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

Titanium dioxide

LD50 Oral: > 10000 mg/kg (Rat)

Xylene

LD50 Oral: 4300 mg/kg (Rat)
LD50 Dermal: > 1700 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)

n-Butyl acetate

LD50 Oral: 10768 mg/kg (Rat)

LD50 Dermal: > 17600 mg/kg (Rabbit)

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

Sensitization non-sensitizing (guinea pig)

Ethyl acetate

LD50 Oral: 5620 mg/kg (Rat)

LD50 Dermal: > 20 mL/kg (Rabbit)

LC50 Inhalation (Vapor): 200000 mg/m³ (Rat)

Methyl alcohol

LD50 Oral: 5600 mg/kg (Rat)

LD50 Dermal: 15800 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 64000 ppm (Rat, 4 hr.)

Ethyl benzene

LD50 Oral: mg/kg (Rat)

LD50 Dermal: > mg/kg (Rabbit)

LC50 Inhalation (Vapor): mg/m³ (Rat, 2 hr.)

Isopropyl alcohol

LD50 Oral: mg/kg (Rat)

LD50 Dermal: mg/kg (Rabbit)

LC50 Inhalation (Vapor): ppm (Rat)

2-Pentanone, 4-methyl-

LD50 Oral: 2080-4600 mg/kg (Rat)

LC50 Inhalation (Vapor): 100000 mg/m³

n-Butyl alcohol

LD50 Oral: 790 - 800 mg/kg (Rat)

LD50 Dermal: 3400 mg/kg

LC50 Inhalation (Vapor): 24000 mg/m³ (Rat, 4 hr.)

Carcinogenicity

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

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed
Ethyl benzene	2B - Possible Human Carcinogen		Listed
2-Pentanone, 4-methyl-	2B - Possible Human Carcinogen		Listed

• 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

There is no data for this product.

Mobility in Environmental Media

No information available.

Ozone

Not applicable

Component Information

Acute Toxicity to Fish

Titanium dioxide

LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

n-Butyl acetate

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

Ethyl benzene

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

Acute Toxicity to Aquatic Invertebrates

n-Butyl acetate

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

Ethyl benzene

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

Acute Toxicity to Aquatic Plants

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, 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	PAINT
Hazard class	3
UN-No.	UN1263
Packing Group	II
Description	UN1263, PAINT, 3, II

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:

<u>Chemical name</u>	<u>CAS No.</u>	<u>Weight-%</u>	<u>CERCLA/SARA 313 (de minimis concentration)</u>
Toluene	108-88-3	20	1.0
Xylene	1330-20-7	10	1.0
Methyl alcohol	67-56-1	5	1.0
Ethyl benzene	100-41-4	5	0.1

Isopropyl alcohol	67-63-0	5	1.0
2-Pentanone, 4-methyl-	108-10-1	5	1.0
n-Butyl alcohol	71-36-3	5	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

<u>Chemical name</u>	<u>CAS No.</u>	<u>Weight-%</u>	<u>Hazardous Air Pollutant (HAP)</u>
Toluene	108-88-3	20	Listed
Xylene	1330-20-7	10	Listed
Methyl alcohol	67-56-1	5	Listed
Ethyl benzene	100-41-4	5	Listed
2-Pentanone, 4-methyl-	108-10-1	5	Listed

US State Regulations

California Proposition 65

 **WARNING:** Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

<u>Chemical name</u>	<u>Massachusetts</u>	<u>New Jersey</u>	<u>Pennsylvania</u>
Toluene	X	X	X
Titanium dioxide	X	X	X
Xylene	X	X	X
Isobutyl acetate	X	X	X
n-Butyl acetate	X	X	X
cellulose, nitrate	X	X	X
Ethyl acetate	X	X	X
Methyl alcohol	X	X	X
Butyl benzyl phthalate	X	X	X
Ethyl benzene	X	X	X
Isopropyl alcohol	X	X	X
2-Pentanone, 4-methyl-	X	X	X
n-Butyl alcohol	X	X	X

Legend

X - Listed

16. OTHER INFORMATION

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.

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
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Montvale, NJ 07645
800-225-5554

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Disclaimer

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END OF SAFETY DATA SHEET