



LENMAR®

SAFETY DATA SHEET

Revision Date: 15-Nov-2019

Revision Number: 6

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	DURALAQ PIGMENTED NITROCELLULOSE LACQUER TOPCOATS SEMI-GLOSS
Product Code	1H-12
Alternate Product Code	TE3901
Product Class	LACQUER
Color	Clear
Recommended use	Surface coating
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)

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

Label elements

Danger
Hazard statements
Causes skin irritation
Causes serious eye damage
May cause cancer
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness

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 solvent

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 breathe 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
Immediately call a POISON CENTER or doctor/physician

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

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/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 container tightly closed

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-%
n-Butyl acetate	123-86-4	15 - 20
Acetone	67-64-1	10 - 15
Titanium dioxide	13463-67-7	10 - 15
cellulose, nitrate	9004-70-0	5 - 10
VM&P naphtha	64742-89-8	5 - 10
Toluene	108-88-3	5 - 10
Isopropyl alcohol	67-63-0	1 - 5
2-Pentanone, 4-methyl-	108-10-1	1 - 5
n-Butyl alcohol	71-36-3	1 - 5
Isobutyl alcohol	78-83-1	1 - 5
Soybean oil, epoxidized	8013-07-8	1 - 5
Ethanol	64-17-5	1 - 5
Talc	14807-96-6	1 - 5
Octane	111-65-9	0.1 - 0.5
Heptane	142-82-5	0.1 - 0.5
Ethyl benzene	100-41-4	0.1 - 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	Immediate medical attention is required. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
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	No information available.

Symptoms/Effects

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)

26.0

Flash Point (°C)

-3.3

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	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.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
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

Chemical name	ACGIH TLV	OSHA PEL

n-Butyl acetate	150 ppm - TWA 200 ppm - STEL	150 ppm - TWA 710 mg/m ³ - TWA
Acetone	250 ppm - TWA 500 ppm - STEL	1000 ppm - TWA 2400 mg/m ³ - TWA
Titanium dioxide	10 mg/m ³ - TWA	15 mg/m ³ - TWA
Toluene	20 ppm - TWA	200 ppm - TWA 300 ppm - Ceiling
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
Isobutyl alcohol	50 ppm - TWA	100 ppm - TWA 300 mg/m ³ - TWA
Ethanol	STEL: 1000 ppm	1000 ppm - TWA 1900 mg/m ³ - TWA
Talc	2 mg/m ³ - TWA	20 mppcf - TWA
Octane	300 ppm - TWA	500 ppm - TWA 2350 mg/m ³ - TWA
Heptane	400 ppm - TWA 500 ppm - STEL	500 ppm - TWA 2000 mg/m ³ - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 435 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

solvent

Odor Threshold

No information available

Density (lbs/gal)

8.45 - 8.55

Specific Gravity

1.01 - 1.03

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	No information available
Vapor density	No information available
Wt. % Solids	30 - 40
Vol. % Solids	15 - 25
Wt. % Volatiles	60 - 70
Vol. % Volatiles	75 - 85
VOC Regulatory Limit (g/L)	< 680
Boiling Point (°F)	133
Boiling Point (°C)	56
Freezing point (°F)	No information available
Freezing Point (°C)	No information available
Flash point (°F)	26.0
Flash Point (°C)	-3.3
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	Severely irritating to eyes. May cause burns. Risk of serious damage to eyes.
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	Possible risk of impaired fertility. Possible risk of harm to 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, Central nervous system.
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)	4782 mg/kg
ATEmix (dermal)	7909 mg/kg
ATEmix (inhalation-dust/mist)	36.7 mg/L
ATEmix (inhalation-vapor)	32 mg/L

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
n-Butyl acetate	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	-

123-86-4			
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m ³ (Rat) 8 h
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
cellulose, nitrate 9004-70-0	5 g/kg (Rat)	-	-
VM&P naphtha 64742-89-8	-	= 3000 mg/kg (Rabbit)	-
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Isopropyl alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
2-Pentanone, 4-methyl- 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	= 8.2 mg/L (Rat) 4 h
n-Butyl alcohol 71-36-3	= 700 mg/kg (Rat) = 790 mg/kg (Rat)	= 3402 mg/kg (Rabbit) = 3400 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Isobutyl alcohol 78-83-1	= 2460 mg/kg (Rat)	= 3400 mg/kg (Rabbit)	> 6.5 mg/L (Rat) 4 h
Soybean oil, epoxidized 8013-07-8	= 40 g/kg (Rat)	> 20 mL/kg (Rabbit)	-
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Octane 111-65-9	-	-	= 118 g/m ³ (Rat) 4 h = 25260 ppm (Rat) 4 h
Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	= 103 g/m ³ (Rat) 4 h
Ethyl benzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h

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
2-Pentanone, 4-methyl-	2B - Possible Human Carcinogen		Listed
Ethyl benzene	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

n-Butyl acetate

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

Acetone

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

Titanium dioxide

LC50: > 1000 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.)

Acetone

EC50: 12600 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	5 - 10	1.0
Isopropyl alcohol	67-63-0	1 - 5	1.0
2-Pentanone, 4-methyl-	108-10-1	1 - 5	1.0
n-Butyl alcohol	71-36-3	1 - 5	1.0
Ethyl benzene	100-41-4	0.1 - 0.5	0.1

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	5 - 10	Listed
2-Pentanone, 4-methyl-	108-10-1	1 - 5	Listed
Ethyl benzene	100-41-4	0.1 - 0.5	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>
n-Butyl acetate	X	X	X
Acetone	X	X	X
Titanium dioxide	X	X	X
cellulose, nitrate	X	X	X
Toluene	X	X	X
Isopropyl alcohol	X	X	X
2-Pentanone, 4-methyl-	X	X	X
n-Butyl alcohol	X	X	X
Isobutyl alcohol	X	X	X
Ethanol	X	X	X
Talc	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.

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Montvale, NJ 07645
800-225-5554

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Disclaimer

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End of Safety Data Sheet