

Revision Date: 28-Sep-2018 Revision Number: 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DURALAQ NITROCELLULOSE LACQUER SATIN DEEP TINT

BASE

TR0484

Product Code 1K01-9984

Alternate Product Code

Product Class LACQUER

Color All Recommended use Paint

Restrictions on use No information available

<u>Manufacturer</u> <u>Emergency Telephone</u>

Benjamin Moore & Co. CHEMTREC (US): 800-424-9300
101 Paragon Drive CHEMTREC (outside US): (703)-527-3887

Montvale, NJ 07645 Phone: 1-866-708-9180 lenmar-coatings.com

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 2
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

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause drowsiness or dizziness

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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 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

Eves

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	20
Acetone	67-64-1	15
Titanium dioxide	13463-67-7	15
cellulose, nitrate	9004-70-0	10
VM&P naphtha	64742-89-8	10
Toluene	108-88-3	10
Isopropyl alcohol	67-63-0	5
2-Pentanone, 4-methyl-	108-10-1	5
n-Butyl alcohol	71-36-3	5
Isobutyl alcohol	78-83-1	5
Soybean oil, epoxidized	8013-07-8	5
Ethanol	64-17-5	5
Talc	14807-96-6	5
Octane	111-65-9	0.5
Heptane	142-82-5	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 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.

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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 productsBurning 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) 32
Flash Point (°C) 0
Method PMCC

Flammability Limits In Air

Lower flammability limit:Not availableUpper 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,

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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.

See Section 12 for additional Ecological Information. **Environmental precautions**

Dam up. Soak up with inert absorbent material. Use a non-sparking or explosion Methods for Cleaning Up

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
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	_	
n-Butyl acetate	150 ppm - TWA	150 ppm - TWA
	200 ppm - STEL	710 mg/m ³ - TWA
Acetone	250 ppm - TWA	1000 ppm - TWA
	500 ppm - STEL	2400 mg/m ³ - TWA
Titanium dioxide	10 mg/m³ - TWA	15 mg/m ³ - TWA
Toluene	20 ppm - TWA	200 ppm - TWA
		300 ppm - Ceiling
Isopropyl alcohol	200 ppm - TWA	400 ppm - TWA
	400 ppm - STEL	980 mg/m ³ - TWA
2-Pentanone, 4-methyl-	20 ppm - TWA	100 ppm - TWA
•	75 ppm - STEL	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	1000 ppm - STEL	1000 ppm - TWA
		1900 mg/m ³ - TWA
Talc	2 mg/m³ - TWA	20 mppcf - TWA
Octane	300 ppm - TWA	500 ppm - TWA
		2350 mg/m ³ - TWA
Heptane	400 ppm - TWA	500 ppm - TWA
·	500 ppm - STEL	2000 mg/m ³ - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA
-		435 mg/m ³ - TWA

Legend

Appropriate engineering controls

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid

Odor little or no odor

Odor Threshold No information available

 Density (lbs/gal)
 8.3 - 8.7

 Specific Gravity
 1.00 - 1.04

pH No information available
Viscosity (cps) No information available
Solubility(ies) No information available

Water solubilityNo information availableEvaporation RateNo information availableVapor pressure @20 °C (kPa)No information availableVapor densityNo information available

 Wt. % Solids
 30 - 40

 Vol. % Solids
 15 - 25

 Wt. % Volatiles
 60 - 70

 Vol. % Volatiles
 75 - 85

 VOC Regulatory Limit (g/L)
 <680</td>

VOC Regulatory Limit (g/L) <680
Boiling Point (°F) 132
Boiling Point (°C) 56

Freezing Point (°F)

Freezing Point (°C)

No information available

No information available

 Flash Point (°F)
 32

 Flash Point (°C)
 0

 Method
 PMCC

Flammability (solid, gas) Not applicable

Upper flammability limit:

Lower flammability limit:

Autoignition Temperature (°F)

Autoignition Temperature (°C)

Decomposition Temperature (°F)

Decomposition Temperature (°C)

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

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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

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inhaling vapors may be harmful or fatal.

Symptoms related to the physical, chemical and toxicological characteristics

No information available **Symptoms**

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

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.

No information available Sensitization No information available. **Neurological Effects** No information available. **Mutagenic Effects**

Possible risk of impaired fertility. Possible risk of harm to the unborn child. **Reproductive Effects**

Developmental Effects No information available. No information available. **Target organ effects**

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.

May cause disorder and damage to the. Respiratory system. Central nervous STOT - single exposure

system.

Other adverse effects No information available.

May be harmful if swallowed and enters airways. Small amounts of this product **Aspiration Hazard**

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) 4832 mg/kg 7693 mg/kg ATEmix (dermal) ATEmix (inhalation-dust/mist) 35.8 mg/L **ATEmix (inhalation-vapor)** 33 mg/L

Acute Toxicity

Component Information

n-Butyl acetate

LD50 Oral: 10768 mg/kg (Rat)

LD50 Dermal: > 17600 mg/kg (Rabbit)

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LC50 Inhalation (Vapor): ppm (Rat, 4 hr.) Sensitization non-sensitizing (guinea pig)

Acetone

LD50 Oral: 5800 mg/kg (Rat)

Titanium dioxide

LD50 Oral: > 10000 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.)

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.)

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: mg/kg (Rat)

LC50 Inhalation (Vapor): ppm (Rat, 10 hr.)

Heptane

LC50 Inhalation (Vapor): 103000 mg/m³ (Rat, 4 hr.)

Ethyl benzene

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

[•] Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes:

Legend

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

[&]quot;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."

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

No information available

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

No information available

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

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, and local regulations. Local

requirements may vary, consult your sanitation department or state-designated

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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 / IMOContact the preparer for further information.

15. REGULATORY INFORMATION

International Inventories

TSCA: United StatesYes - All components are listed or exempt.
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 Yes

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-%	CERCLA/SARA 313 (de minimis concentration)
Toluene	108-88-3	10	1.0
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
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 (HAP)
Toluene	108-88-3	10	Listed
2-Pentanone, 4-methyl-	108-10-1	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
n-Butyl acetate	X	X	X
Acetone	X	X	Х
Titanium dioxide	X	X	X
cellulose, nitrate	X	Χ	X
Toluene	X	X	X
Isopropyl alcohol	X	X	X
2-Pentanone, 4-methyl-	X	Χ	X
n-Butyl alcohol	X	Χ	X
Isobutyl alcohol	X	X	X
Ethanol	X	X	X
Talc	X	X	X

Legend

X - Listed

16. OTHER INFORMATION

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

HMIS Legend

0 - Minimal Hazard

- 1 Slight Hazard
- 2 Moderate Hazard
- 3 Serious Hazard
- 4 Severe Hazard

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* - 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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Disclaimer

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END OF SAFETY DATA SHEET