

Material Safety Data Sheet

For Coatings, Resins and Related Materials

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

24 Hour Emergency: 1-800-123-4567 CHEMTREC: 1-800-424-9300

National Response in Canada CANUTEC: 613-996-6666

Outside U.S. and Canada Chemtrec: 202-483-7616

Section 1 - Chemical Product / Company Information

Product Name:	LACQUER SANDING SEALER	Revision Date:	03/08/2012
Identification Number:	015	Print Date:	March 8, 2012
Product Use/Class:	SANDING SEALER/NITROCELLULOSE LACQUER	NSN:	NOT APPLICABLE
Manufacturer:	Deft, Inc. (CAGE CODE 33461) 17451 Von Karman Ave Irvine, Ca. 92614	Information Phone:	(949) 474-0400
		Emergency Phone:	(800) 424-9300

Section 2 - Hazards Identification

*** Emergency Overview ***: Extremely Flammable! Harmful by inhalation, in contact with skin, and if swallowed. May cause burns to the eyes and skin. May cause irritation to the respiratory tract. Affects the central nervous system. Contact with eyes or skin causes irritation.

Effects Of Overexposure - Eye Contact: Exposure to liquid, aerosol, or vapors may cause irritation, tearing, redness, and swelling accompanied by a stinging sensation. Direct eye contact may cause irritation. Exposure may cause conjunctivitis. Contact with eyes may cause blurred vision. Mists and vapors may cause severe eye irritation. May cause swelling of the conjunctiva, corneal injury, or burns to the eye.

Effects Of Overexposure - Skin Contact: Direct skin contact may cause irritation. Symptoms may include drying and cracking of skin, swelling, redness, rash, pain, burning, and skin burns. Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties. Contact with skin may cause blistering. Repeated or prolonged contact may cause dry skin. Exposure may cause skin burns.

Effects Of Overexposure - Inhalation: Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes) & acute nervous system depression characterized by the following progressive steps: headache, nausea, weakness, dizziness, staggering gait, confusion, fatigue, drowsiness, unconsciousness, or coma. Exposure may cause pulmonary edema or irreversible damage to the nervous system and brain. Exposure may cause coughing. Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness. Exposure may cause liveliness, a light-headed feeling, and giddiness followed by nausea, weakness, fatigue, and drowsiness. Inhalation may cause headaches, difficult breathing, and loss of consciousness. May cause irregular heartbeats, a tight feeling in the chest, respiratory depression, and narcosis. Exposure to high concentrations or overexposure to one or more components may cause respiratory depression or failure, difficult breathing, chest constriction, loss of consciousness, or death. A component may cause hypotension, loss of reflexes, stupor, diarrhea, nausea, vomiting, gastrointestinal pain, and respiratory depression that may lead to death.

Effects Of Overexposure - Ingestion: Ingestion may cause gastrointestinal irritation, abdominal pain, nausea, vomiting, diarrhea, and a sore throat. May result in possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis. Exposure to large doses may cause abdominal spasms. Harmful or fatal if swallowed. Ingestion causes damage to the central nervous system. It may include, acute nervous system depression, which is characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, drowsiness, unconsciousness, or coma. Lung inflammation or other lung injury may occur if isopropanol enters the lungs through vomiting or swallowing. A component may cause liver damage.

Effects Of Overexposure - Chronic Hazards: Prolonged contact will cause drying and cracking of the skin, due to defatting action. Skin sensitization, asthma, or other allergic responses may develop. Exposure to concentrated vapors may cause heart arrhythmias, especially those with preexisting heart

conditions. Symptoms of overexposure may occur for up to 48 hours after the original exposure occurred. Preexisting liver or kidney disease may be aggravated by repeated or prolonged exposure. Exposure to a component may cause kidney damage, coma, difficult breathing, liver damage, blood abnormalities (breakage of red blood cells), blood in the urine, or death. Overexposure to ETHYL BENZENE, a component of this formulation, has been shown to cause damage to the liver and kidneys in tests in laboratory animals. Overexposure to isopropanol has been suggested as a cause of mild and reversible liver effects in laboratory animals. Ethylbenzene, a component of this formulation, has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Isopropanol, a component of this formulation, has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Primary Route(s) Of Entry: Skin Contact, Inhalation, Eye Contact

Section 3 - Composition / Information On Ingredients

Component	CAS Number	Weight % Less Than
REFINED PETROLEUM DISTILLATE	8052-41-3	15.38
SOLVENT NAPHTHA, LIGHT ALIPHATIC	64742-89-8	14.27
1-BUTANOL	71-36-3	9.75
n-BUTYL ACETATE	123-86-4	7.54
NITROCELLULOSE	9004-70-0	5.76
ISOBUTYL ISOBUTYRATE	97-85-8	5.31
ISOPROPANOL ANHYDROUS	67-63-0	4.66
METHYL n-AMYL KETONE	110-43-0	4.43
2-BUTOXYETHANOL	111-76-2	4.35
ACETONE	67-64-1	4.11
XYLENE	1330-20-7	3.23
METHYL ISOBUTYL KETONE	108-10-1	2.74
NITROCELLULOSE	9004-70-0	1.92
ZINC STEARATE	557-05-1	1.07
ETHYL BENZENE	100-41-4	0.87

ALL INGREDIENTS ARE ON THE TSCA INVENTORY LIST, UNLESS OTHERWISE NOTED IN SECTION 8.

Section 4 - First Aid Measures

First Aid - Eye Contact: If material gets into eyes, flush with water immediately for 20 minutes. Hold eyelids open to rinse out the entire eye. Consult a physician. Have eyes examined/treated by a physician if a burning sensation, redness, or itching develop. If symptoms develop (irritation) from airborne exposure, move to fresh air.

First Aid - Skin Contact: Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water and wash affected areas thoroughly with soap and water for at least 15 minutes. If symptoms develop (such as irritation or rash), consult a physician or get medical attention. Wash contaminated clothing thoroughly before reuse or discard. Seek medical attention if redness, a burning sensation, or itching occurs.

First Aid - Inhalation: Move to fresh air in case of accidental inhalation of vapors. Give oxygen or artificial respiration if needed. Asthmatic type symptoms may develop and maybe immediate or delayed by several hours. In the case of inhalation of aerosol/mist, call 911 immediately. Contact a physician if a cough develops.

First Aid - Ingestion: Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical help.

Section 5 - Fire Fighting Measures

Flash Point (°F): -4 TCC LOWER EXPLOSIVE LIMIT UPPER EXPLOSIVE LIMIT (%): 12.
(%): 1.0

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Spray, Dry Sand, Dry Powder
Unusual Fire And Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Fire or intense heat may cause violent rupture of packages. Application to hot surfaces requires special precautions. Toxic gases may form when product burns. Remove all sources of ignition. Do not use a cutting or welding torch near or on a drum of product, because vapors may ignite explosively, even if the drum is empty and contains only product residue. Fire may ensue when product comes in contact with strong oxidizers. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. In empty containers, a component's residue may form vapors that may explode. A component burns with intense heat and rapidly.

Special Firefighting Procedures: In the event of fire, wear self-contained breathing apparatus. Firefighters should wear full protective clothing. Flammable. Cool fire-exposed containers using water spray.

Firefighters should use a safe distance while fighting the fire.

Section 6 – Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate area. Contain and remove spilled material with inert absorbent and non-sparking tools. Use personal protective equipment as necessary. Dike to prevent entering any sewer or waterway. Soak up with vermiculite or inert absorbent material and dispose of as hazardous waste.

Section 7 - Handling and Storage

Handling: Prevent prolonged breathing of vapors or spray mist. Avoid contact with eyes and skin. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Use only in well ventilated areas. Open doors and windows. Use safety precautions with empty containers. Empty containers may contain hazardous materials (product residues) in the form of solids, liquids, or vapors. Always use grounding leads when transferring from one container to another. Do not drill, solder, pressurize, grind, cut, weld, or braze empty container. Do not expose product or empty containers to sparks, heat, hot surfaces, open flame, static electricity, or any source of ignition. Avoid processes that might generate static electrical discharge. Be careful; do not handle the container or the material inside roughly. Do not slide or drop container. Protect container against physical damage. Do not re-use empty containers.

Storage: Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Keep containers upright to prevent leakage and tightly closed in a dry, cool, and well-ventilated place. Protect material from direct sunlight. Keep away from incompatible material.

Section 8 - Exposure Controls / Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
REFINED PETROLEUM DISTILLATE	N.E.	N.E.	N.E.	N.E.
SOLVENT NAPHTHA, LIGHT ALIPHATIC	300 ppm	N.E.	300 ppm	400 ppm
1-BUTANOL	20 ppm	N.E.	50 ppm	N.E.
n-BUTYL ACETATE	150 ppm	200 ppm	150 ppm	N.E.
NITROCELLULOSE	HAZARD - N.E.	HAZARD - N.E.	HAZARD - N.E.	HAZARD - N.E.
ISOBUTYL ISOBUTYRATE	N.E.	N.E.	N.E.	N.E.
ISOPROPANOL ANHYDROUS	400 ppm	500 ppm	400 ppm	500 ppm
METHYL n-AMYL KETONE	50 ppm	N.E.	100 ppm	N.E.
2-BUTOXYETHANOL	25 ppm	N.E.	25 ppm	N.E.
ACETONE	500 ppm	750 ppm	750 ppm	1000 ppm
XYLENE	100 ppm	150 ppm	100 ppm	N.E.
METHYL ISOBUTYL KETONE	50 ppm	75 ppm	50 ppm	75 ppm
NITROCELLULOSE	HAZARD - N.E.	HAZARD - N.E.	HAZARD - N.E.	HAZARD - N.E.
ZINC STEARATE	N.E.	N.E.	15 mg/m3	N.E.
ETHYL BENZENE	100 ppm	125 ppm	100 ppm	125 ppm

Notes

ODORLESS MINERAL SPIRITS CAS# 8052-41-3 - NIOSH recommends a limit of 350 mg/m3 - 8 hour TWA, 1800 mg/m3 as determined by a 15-minute sample.

n-BUTYL ALCOHOL CAS# 71-36-3, there is evidence that some hearing loss may occur from long-term repeated exposure to vapor concentrations that are greater than 50 ppm. Animal studies have shown exposure causes effects on the liver, kidney, lungs, eyes, ears (vertigo), and central nervous system. Exposure caused birth defects and is toxic to the fetus of animals at levels that are nontoxic to the pregnant animal. The animals were exposed to doses many times higher than are expected to occur during use of the component.

n-BUTYL ACETATE CAS# 123-86-4 - This component has been shown to cause harm to the fetus in laboratory animals. It only caused harm at levels of overexposure that would also harm the pregnant animal. The relevance to humans is unknown.

NITROCELLULOSE CAS# 9004-70-0 - It is on the OSHA Process Safety Management (PSM) list.

ISOBUTYL ISOBUTYRATE CAS# 97-85-8 - Eastman Kodak recommends an exposure limit of: 100 ppm 8 hour TWA.

ISOPROPANOL ANHYDROUS CAS# 67-63-0 in animal studies, exposure has caused fetal developmental effects and low fetal weights in non-toxic exposure levels to the mothers. It has been shown to cause fetotoxic effects at the level of exposure that was harmful to the mother. The relevance of these findings to humans is unknown. Exposure has been shown to cause kidney damage in male rats. The mechanism of toxicity that caused the kidney damage is not found in humans; therefore kidney damage from exposure is not expected to occur in humans.

2-BUTOXYETHANOL CAS# 111-76-2 - This component has been shown to cause harm to the fetus in laboratory animals. It only caused harm at levels of overexposure that would also harm the pregnant animal. It has been shown to cause cancer in laboratory animals. The relevance to humans is unknown. It also has been shown to cause reversible kidney effects, reversible liver effects, and blood abnormalities in laboratory animals. Congestion in the spleen, liver, kidneys, and lungs resulted from acute lethal exposure in animal studies.

XYLENE CAS# 1330-20-7 - In animal studies, exposure has caused birth defects. The relevance to humans is unknown. It also has been shown to cause reversible effects to the liver, kidney damage, testis damage, harmful to fetuses, liver damage, hearing effects, central nervous effects, and cardiac sensitization in laboratory animals.

NITROCELLULOSE CAS# 9004-70-0 - It is on the OSHA Process Safety Management (PSM) list.

ZINC STEARATE CAS# 557-05-1 - OSHA - 8 hour TWA 15 mg/m3 total dust. 8 hour TWA 5 mg/m3 respirable fraction.

ETHYL BENZENE CAS# 100-41-4 - IARC Group 2B possibly carcinogenic to humans.

Engineering Controls: Local ventilation of emission sources may be necessary to maintain ambient

concentrations below permissible OSHA exposure limits. Remove all ignition sources (heat, sparks, flame, and hot surfaces).

Respiratory Protection: A respirator that is recommended or approved for use in an organic vapor environment (air purifying, fresh air supplied, or NIOSH certified respirator for organic vapors, mists, and fumes) is necessary if OSHA/ACGIH permissible exposure limits are exceeded. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below OSHA/ACGIH permissible exposure levels.

Skin Protection: Solvent-resistant gloves.

Eye Protection: Wear safety eyewear (safety glasses, safety glasses with side-shields, chemical goggles, or face shields) to prevent eye contact.

Other protective equipment: Long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse or discard. Safety shower and eyewash station should be located in immediate work area. Wear an apron and boots that are chemical-resistant.

Hygienic Practices: Wash hands before breaks, eating, smoking, using washroom, and at the end of the workday.

Section 9 - Physical and Chemical Properties

Boiling Range (°F):	133 - 343	Vapor Density:	Heavier than air
Odor:	ODORLESS MINERAL SPIRITS, VM&P NAPHTHA, BUTANOL, & n-BUTYL ACETATE SOLVENTS	Odor Threshold:	N.D.
Appearance:	Opaque liquid	Evaporation Rate:	ND
Solubility in H ₂ O:	ND	Specific Gravity:	0.878
Freeze Point:	N.D.	PH:	N.A.
Vapor Pressure, mm Hg:	24.	Viscosity:	12-14 #3 EZ ZAHN CUP SECONDS (> 100 cps)
Physical State:	Liquid		

(See section 16 for abbreviation legend)

Section 10 - Stability and Reactivity

Conditions To Avoid: Avoid high temperatures, sparks, or open flames. Do not breathe vapors or spray mist.

Incompatibility: Material is incompatible with strong oxidizers, reducing agents, strong acids, chromic anhydride, chromyl alcohol, hexachloromelamine, and hydrogen peroxide. In addition, incompatible with permonosulfuric acid, chloroform, alkalis, chlorine compounds, potassium t-butoxide, and thioglycol.

Material is incompatible with strong oxidizers, strong acids, strong alkalis, heat, aluminum, and salts of strong bases. A component is incompatible with oxidizing agents, strong acids, strong alkalies, amines, pigments that give an alkaline reaction, or alcohol denatured with pyridine. A component is incompatible with peroxides and oxygen. Reacts with air to form peroxides.

Hazardous Decomposition: Thermal decomposition can lead to the generation and release of gases and vapors including carbon monoxide, carbon dioxide, oxides of nitrogen, and hydrocarbons. Product may form hydrogen cyanide, methane, aldehydes, and carboxylic acids when burned.

Hazardous Polymerization: Will not occur.

Stability: Stable under recommended storage conditions.

Section 11 - Toxicological Information

Product LD50: N.E.

Product LC50: N.E.

Section 12 - Ecological Information

Ecological Information: No Information.

Section 13 - Disposal Information

Disposal Information: Dispose of waste in accordance with federal, state, and local environmental regulations. Empty containers will contain product residue and flammable vapors. Handle as hazardous material. Do not incinerate closed containers. EPA Hazardous Waste Number/Code: D001, F003, F005.

Hazardous Waste Characteristics: Ignitability and Reactivity. Do not weld or use a cutting torch on empty containers. RCRA HAZARDOUS WASTE CODE U161.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Consumer Commodity	Packing Group:	NA
DOT Technical Name:	N.A.	Hazard Subclass:	N.A.
DOT Hazard Class:	ORM-D	Resp. Guide Page:	N.A.
DOT UN/NA Number:	N.A.	IATA:	REGULATED

Section 15 - Regulatory Information

The following components are not subject to reporting in Section 3:

Component	CAS Number	Weight % Less Than
ALKYD RESIN	UNKNOWN	9.3039
ALDEHYDE RESIN	28931-47-7	4.7958
ISOBUTANOL	78-83-1	0.1992
HEPTANE	142-82-5	0.1711
SOLVENT NAPHTHA, HEAVY AROMATIC	64742-95-5	0.1187
NAPHTHALENE	91-20-3	0.1
FLOW AGENT	MIXTURE	0.01
BENZENE	71-43-2	0.01
1,2,4 TRIMETHYLBENZENE	95-63-6	0.01
TOLUENE	108-88-3	0.01
p-XYLENE OR PARA-XYLENE	106-42-3	0.01

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CERCLA – SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Component	CAS Number	Percent By Weight
1-BUTANOL	71-36-3	9.7548
ISOPROPANOL ANHYDROUS	67-63-0	4.6588
2-BUTOXYETHANOL	111-76-2	4.3548
XYLENE	1330-20-7	3.2304
METHYL ISOBUTYL KETONE	108-10-1	2.7405
ZINC STEARATE	557-05-1	1.0688
ETHYL BENZENE	100-41-4	0.8746

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Component	CAS Number
METHYL ISOBUTYL KETONE	108-10-1
p-XYLENE OR PARA-XYLENE	106-42-3

U.S. State Regulations: As follows –**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

Component	CAS Number
ALKYD RESIN	UNKNOWN

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%.

Component	CAS Number
ALKYD RESIN	UNKNOWN
ALDEHYDE RESIN	28931-47-7

California Proposition 65:

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

Component	CAS Number	Percent By Weight
METHYL ISOBUTYL KETONE	108-10-1	2.7405
ETHYL BENZENE	100-41-4	0.8746
NAPHTHALENE	91-20-3	0.1
BENZENE	71-43-2	0.01

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

Component	CAS Number	Percent By Weight
BENZENE	71-43-2	0.01
TOLUENE	108-88-3	0.01

International Regulations: As follows –

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: B2, D2B

Section 16 - Other Information

HMIS Ratings:

Health: 2

Flammability: 3

Reactivity: 0

Personal Protection: G

NFPA Fire Rating: 3**NFPA Health Rating:** 2**NFPA Specific Hazard Rating:** NA**NFPA Stability Rating:** 1**VOLATILE ORGANIC COMPOUNDS, GR/LTR:** 672**VOLATILE ORGANIC COMPOUNDS, LB/GAL:** 5.61**VOLATILE ORGANIC COMPOUNDS MIXED, GR/LTR:** <= 680**VOLATILE ORGANIC COMPOUNDS MIXED, LB/GAL:** <= 5.67**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), GR/LTR:** 642**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), LB/GAL:** 5.35**VOLATILE HAPs PER WEIGHT SOLIDS, LB./LB.** 0.29972**REASON FOR REVISION:****REGULATORY CODE:** 015**LAYOUT CODE:** A2004FD**Legend:** N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.