

MATERIAL SAFETY DATA SHEET



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PRODUCT: ND 137000 Stud Grade™ Permanent
MSDS ID: ND2048 Threadlocker/Sealant
DATE: 9/18/97 Updated: 11/1/00
PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H:1 F:1 R:2 PPE: D

COMPONENTS	CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Ethoxylated bisphenol A dimethacrylate	NDA-09-25	41637-38-1	75-80	n.e.	n.e.
N,N-m-Phenylene dimaleimide	NDA-09-132	3006-93-7	10-15	n.e.	n.e.
Cumene hydroperoxide	NDA-09-151	80-15-9	1-5	n.e.	n.e.
Silica	NDA-09-101	112945-52-5	<2	20 mppcf	10 mg/m3
Methanol	NDA-09-171	67-56-1	<1.5	200 ppm	200 ppm
Saccharin	NDA-09-150	81-07-2	<1	n.e.	n.e.
Alkyl toluidine	NDA-09-169	613-48-9	<1	n.e.	n.e.

All ingredients are listed on the TSCA Inventory.

n.a.= not applicable / n.e.=not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT: n.a.
VAPOR DENSITY: n.a. air = 1
VAPOR PRESSURE: n.a.
MELTING POINT: n.a.
SPECIFIC GRAVITY: ~1.12 @ 25°C water = 1
EVAPORATION RATE: n.a.
WATER REACTIVE: No
SOLUBILITY IN WATER: Negligible
APPEARANCE AND ODOR: Red translucent gel with a musty odor.

SECTION III - Fire and Explosion Hazard Data

FLASH POINT: > 200°C PMCC
AUTOIGNITION TEMPERATURE: not determined
FLAMMABILITY LIMITS % IN AIR: LEL: not determined UEL: not determined
EXTINGUISHER MEDIA: Use carbon dioxide, foam, and dry chemical. Water spray for cooling.

SPECIAL FIREFIGHTING PROCEDURES: Fight fire from a safe distance and or protected location. Heat and impurities may increase temperatures, build pressure and rupture closed containers. Water may be used for cooling but very ineffective in fighting the fire due to low solubility. Pressure relief system may plug with solids, increasing risk of over pressure. Notify authorities if liquid enters sewers or public waters. Always wear proper fire fighting gear.

UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID: High temperatures, depletion of inhibitor, accidental impurities, exposure to radiation, oxidizers may cause spontaneous polymerization which can generate heat and pressure. Closed containers may rupture and explode during runaway polymerization.

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SECTION IV - Reactivity Hazard Data

STABILITY: **stable: X**

unstable:

HAZARDOUS POLYMERIZATION:

may occur: X

will not occur:

CONDITIONS TO AVOID: Avoid heat, oxidizing conditions, direct sunlight, and inert gas blanketing.

INCOMPATIBILITY: Strong oxidizers, free radical initiators, and inert gases.

HAZARDOUS DECOMPOSITION PRODUCTS:

Acrid smoke, fumes of carbon monoxide and carbon dioxide may be released during a fire.

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY:

INHALATION:

INGESTION:

SKIN ABSORPTION: X

EYE CONTACT: A primary route of exposure that will cause eye irritation characterized by excessive tearing, redness and blinking.

FIRST AID: Flush eyes with generous amounts of water for 20-30 minutes, lifting both upper and lower eyelids often. Get medical attention if pain, blinking, tears or redness persist.

SKIN CONTACT: A primary route of exposure that may cause moderate skin irritation and allergic skin reaction.

FIRST AID: Thoroughly wash exposed area with soap and water. If sticky, use water-less cleaner first. Flush with lukewarm water for 15 minutes. Remove contaminated clothing as needed.

INHALATION: Not a significant route of exposure, though vapors which may be generated at high temperatures may cause respiratory tract irritation. Symptoms may include coughing, mucous production and shortness of breath.

FIRST AID: If overcome by exposure, victim should be removed to fresh air immediately. Give artificial respiration as needed. Get immediate emergency medical attention.

INGESTION: An unlikely route of exposure. Ingestion may cause irritation of the gastrointestinal tract and depression of the central nervous system leading to loss of consciousness.

FIRST AID: Do not induce vomiting. Immediately seek medical attention.

CHRONIC EFFECTS: No chronic health effects data is available.

Carcinogenic: Contains saccharin which has been determined to cause cancer in laboratory animals.

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Component	Oral LD50	Dermal LD50	Inhalation LC50
Ethoxylated bisphenol A dimethacrylate	not determined	not determined	not determined
N,N-m-Phenylene dimaleimide	2025 mg/kg (rat)	not determined	not determined
Cumene hydroperoxide	800-1600 mg/Kg rat	Severe irritation (delayed)	700 ppm Rat
Silica	>10000 mg/kg (rat)	not determined	not determined
Saccharin	not determined	not determined	not determined
Alkyl toluidine	not determined	not determined	not determined
Methanol	6.2-13 g/kg (rat)	20 ml/kg (rabbit)	64,000 ppm (rat)

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: Where exposure through inhalation may occur from use, wear NIOSH/MSHA approved respirator. Work in a well ventilated area.

PROTECTIVE GLOVES: Use rubber or vinyl.

EYE PROTECTION: Chemical splash goggles or face shield must be worn when possibility exists for eye contact. No contact lenses

VENTILATION TO BE USED: LOCAL EXHAUST: MECHANICAL: SPECIFIC: OTHER (specify):

PROTECTIVE CLOTHING AND EQUIPMENT: Depending on the conditions of use, protective apron, boots, head and face protection should be worn. Equipment should be cleaned thoroughly after each use.

HYGIENIC WORK PRACTICES: Practice good personal hygiene and wash hands after handling product, especially before eating or using toilet facilities.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Spilled or released material may polymerize and create heat and gases. Extinguish all ignition sources and ventilate area. Wear protective equipment during clean-up. Dike and recover large spills. Soak up small spills with inert solids (ie. vermiculite or clay) and sweep or shovel into a vented disposal container. Wash spill area with a strong detergent and water solution, rinse with water but minimize water use during clean-up.

WASTE DISPOSAL METHODS: Non-contaminated, properly inhibited product is not a RCRA hazardous waste but, contaminated product, soil, or water may be RCRA/OSHA hazardous waste due to potential for internal heat generation. Dispose of in accordance with all applicable local, state, and federal regulations.

SAFE HANDLING AND STORAGE: Do not store at or below 32°F, inhibitor can separate as a solid. Prevent moisture contact. Store in tightly closed, properly vented containers away from; heat, sparks, open flame, strong oxidizers, radiation, and other initiators. Prevent contamination by foreign materials. Use only non-sparking tools.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Unless inhibited, product can polymerize, raising temperature and pressure and possibly rupturing the container. Do not blanket or mix with oxygen-free gas as it renders the inhibitor ineffective.

RECOMMENDED NFPA/HMIS RATING

HEALTH 1

FLAMMABILITY 1

REACTIVITY 2

PERSONAL D PROTECTION

note: ratings may differ according to application, environment, and physical state.

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NOTES:

DOT proper shipping name: Not DOT regulated.

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
80-15-9	Cumene hydroperoxide	4%

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>cancer agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
Saccharin	81-07-2	.5%	X		

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