



FIRE PREVENTER

Nochar Fire Preventer (NFP) is a non-toxic, non-hazardous fire retardant for all unsealed natural fiber materials and products. Unsealed natural fibers include but are not limited to cotton, wool, silk, rayon, linen, paper, cellulose fibers and wood. NFP contains no coloring agents, thickeners, or inhibitors (non-toxic dyes may be added).

Nochar's Fire Preventer is a water-soluble product that uses water as a carrier to penetrate the fiber. The water is then dried off or driven off, leaving the retardant in place.

Nochar's Fire Preventer increases the fire safety of materials and products treated by increasing the combustion temperature of natural fiber materials. NFP reduces the rate of heat release after ignition, and slows the rate of flame spread. Should a fire start from another fuel source, NFP will slow the progress of the flame on the materials that have been properly treated with the product.

Nochar's Fire Preventer is used extensively for on-site treatment of construction projects, industrial plant safety, packaging and in agricultural application.

Nochar Tests and Results				
Laboratory	Type	Application Method	Material Tested	Results
H.P.M.A.	ASTM-84	Sprayed On	Spruce 2"x4"	Passed Class B
H.P.M.A.	ASTM-84	Sprayed On	3/8" Lauan Plywood	Passed Class B
H.P.M.A.	ASTM-84	Sprayed On	Southern Pine Plywood	Passed Class C
H.P.M.A.	ASTM-84	Sprayed On	3/4 red Oak Lumber	Passed Class C
H.P.M.A.	ASTM-84	Sprayed On	20 lb. Computer Bond Paper	Passed Class A
H.P.M.A.	ASTM-84	Sprayed On	1/2" Pine Shakes	Passed Class B
H.P.M.A.	ASTM-84	Chamber Treated	1/2" Plywood	Passed Class A
H.P.M.A.	ASTM-84	Chamber Treated	Spruce 2"x4"	Passed Class A
U.S. Testing Labs	ASTM-84	Sprayed On	3/4" Douglas Fir Flooring	Passed Class B
Motor Vehicle Safety Standard	DOT		Cotton/Poly Blend Curtains	Passed

TECHNICAL DATA

APPLICATION: Spraying (airless), Brush or Roll on, Pressurization (auto-clave/request special instruction from manufacturer), Vat dipping or soaking, Curtain Coating, Fogging

Nochar should be applied to all sides that may be exposed to flame.

RECOMMENDED RATE OF APPLICATION:

FOR MOST SPECIES OF DIMENSIONAL LUMBER:

Brush or roll on - 150 square feet / gal
 Airless spray - up to 300 square feet / gal
 Fogging Method - up to 500 square feet / gal

NOTE: These coverages may vary by species of wood and the moisture content.

FOR PAPER AND TEXTILES

If treating corrugated items, sample testing is recommended to determine if protection is adequate.
 Brush or roll on - 210 square feet / gal
 Airless spray - up to 420 square feet / gal
 Fogging Method - up to 700 square feet / gal

NOTE: These coverages will vary based on type of material and its configuration.

TYPES OF MATERIAL TO BE TREATED:
 Any natural, unsealed fiber, i.e., cotton, wool, silk, rayon, linen, paper, cellulosic fibers, and wood.

NOTE: Rate of application may vary by thickness and density of materials to be treated.

STORAGE: Product must be stored at a minimum ambient temperature of 50° F and a maximum ambient temperature of 130° F.

NOTE: When stored at temperatures below 30°F, chemicals will separate, thus requiring agitation at above 70° F for 15 minutes.

PACKAGING: One gallon and Five gallon

QUALITY CONTROL: Each package size carries batch numbers, which reference quality control testing and liquid sample kept on file at the manufacturer's laboratories. Permanent production and laboratory log kept; any claims must reference batch numbers used.

TOXICITY: None - (See M.S.D. Sheet or Toxicity Test Reference - Northview Laboratories, Berkeley, CA.)

VISCOSITY: 10 Centipoise (cP)
 Obtained with a Brookfield viscometer (Model LVF) using a #2 spindle at 60 rpm.

SPECIFIC WEIGHT: 8.809 pounds per gallon of pre-mixed retardant.

SPECIFIC GRAVITY: 1.054 AT 70°

FLASH POINT: None

SOLIDS CONTENT BY VOLUME OF LIQUID: 10%

PH SPECIFICATIONS:
 7.4 to 7.7 - slightly corrosive to metals.

VOLATILITY: Volatilizes at 90° F plus.

TESTING REFERENCE:
 Testing data sheet, ASTM specifications (All available upon request)

Materials Safety Data Sheet

Emergency Telephone 317-573-4860

Nochar Fire Preventer

09/18/91

I. Chemical Product and Company Information

Manufacturer: Nochar Incorporated
10333 N. Meridian St., Suite. 215
Indianapolis, IN 46290
(317) 573-4865

Production Code: Nochar's Fire Preventer™

Chemical Name & Syn: Proprietary compounds in an aqueous solution

Trade Name & Syn: Nochar's Fire Preventer™

Chemical Family: Proprietary - Trade Secret

DOT Shipping Name: Not established (N.O.S.)

DOT Hazard Class: Non-Flammable

II. Hazards Identification

Hazardous Ingredients

Chemical Name	CAS #	Weight %
Ammonia	7664-41-7	1%

NOTE: This product may liberate higher ammonia concentrations upon heating in the aqueous form.

Hazard Ratings

Health: 1 Flammability: 0 Reactivity: 0 Protect Equipment: G

III. Physical Data

Boiling Point: 212° F, (100° C) **Specific Gravity (H₂O=1):** 1.056

Vapor Pressure (mm Hg): (100° C.) 760 mm Hg (approx.)

Percent Volatile by Vol. (%): < 90% **pH:** 7.1 to 7.7 (typical)

Vapor Density (Air=1): Liquid heavier than air

Evaporation Rate: < .01 **Solubility in Water:** Solubility at 100%

Appearance & Odor: Clear amber liquid with ammonia odor.

IV. Fire & Explosion Hazard Data

Flash Point & Test Method: Non-Flammable

Flammable Limits, % by Volume: LEL: N/A UEL: N/A

This compound is classified as a fire-retardant

Auto Ignition Temperature: LEL: N/A UEL: N/A

Extinguishing Media: N/A

Unusual Fire and Explosion Hazards: None

Special Fire Fighting: Should be tested atmospherically before entering fire proximity.

V. Health Hazard Data

Acute: None **Chronic:** Slight eye irritant

Symptoms of Exposure: (Dusts) Eye irritation and redness: nasal irritation, sore throat, coughing, slight dryness to skin.

Medical Cond. Aggravated by Exp.: Not established (personnel should be screened for allergies to ammonia compounds).

Carcinogen: NTP Program: No IARC Program: No

Primary Route(s) of Entry:

Inhalation: Remove from proximity of chemical and to fresh air.

Eyes: Flush with large volume of water to dilute irritant: eye injuries should be attended by medical personnel.

Skin: Wash with soap and water - avoid open cuts and abrasions when handling this liquid.

Ingestion: Drink large volumes of water.

VI. Reactivity Data

Stability: This is a stable material **Incompatibility:** Strong acids

Condition to Avoid: Not established

Hazardous Decomposition Products: Ammonia gases, carbon dioxide

Hazardous Polymerization will not occur

Conditions to Avoid: High heat at elevated pressures.

VII. Special Precautions & Spill/Leak Procedures

Precautions to be taken in Handling and Storage: Keep isolated from extreme heat while in sealed containers.

Other precautions: None

Steps to be taken in case material is released or spilled:

Large spills: Dike with absorbents and/or Bonding Agents to prevent spread.

Small spills: May be diluted and washed away.

Always consult State, Federal regulations or local codes before disposing of any chemical compound.

Waste Disposal Methods (Consult Federal, State and Local regulations):

Minor spills that are cleaned up are not considered hazardous substances. Consult applicable regulations.

VIII. Special Protection Information/Control Measures

Respiratory Protection (Specify type):

In dusts; Class 2B particulate filter respirator.

Ventilation: Meet OSHA PEL **Local Exhaust:** Meet OSHA PEL

Special: None

Protective Gloves: Use vinyl or rubber in repeated contact with skin.

Eye protection: For liquids monogoggle/safety glasses w/ side shields.

Other protective clothing or equipment: None specified.

Work/Hygienic practices: Always wash person/clothes as normal hygienic practices after using.

SPECIAL PRECAUTIONS: Personnel susceptible to allergenic reactions or known chemical sensitivities should consult their supervisor for a review of these conditions prior to exposure to this material, to determine any potential susceptibility or abnormal reactions.

The manufacturer has provided the contained information in this Material Safety Data Sheet (M.S.D.S.) to communicate physical property, health, and safety information as a vital part of our Product Safety Information Program. It is intended that you may better fulfill your obligation to educate and alert exposed personnel in the proper handling techniques necessary to maintain safety in their work environment. The manufacturer however, recommends that the user of this product consult experts in the fields of ventilation, toxicology, fire, and insurance to adequately interpret and utilize the data and information contained in this M.S.D.S.

IX. SARA Title III Section 313 Supplier Notification

This product contains the following 313 chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know act and of 40 CFR 372: SARA III (Section 312-313):
CAS # 664-41-7, Chemical Name: Ammonia, 1% by weight

NOTE: Deminimis conc. for mixtures may require reporting this compound.

DISCLAIMER: The information contained herein is based on the data available to us and is believed to be correct. However, the manufacturer makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof, and assumes no responsibility for injury from the use of the product described herein. The manufacturer assumes no liability for incidental, consequential or direct damage of any manner or kind, regardless of cause, including negligence.

On February 27, 1988, the first phase of Proposition 65 regulations involving warnings of the presence of certain listed chemicals went into effect. The manufacturer believes that the law requires us to inform you that detectable amounts of any of the listed chemicals might be present in the manufacturer's products. Based on a review of the list, the manufacturer's products, like all synthetic and naturally occurring chemical substances, may conceivably contain trace contaminants of some of the listed substances, while not necessarily added to the manufacturer's products as ingredients, some listed chemicals may be present in the raw materials as received from suppliers and over which we have no control.

Therefore, even though some of the listed substances may not represent a significant risk as defined by the regulations, in order to comply with the California law, we feel obligated to make the following statement:

"WARNING: This product(s) may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants."