

MATERIAL SAFETY DATA SHEET

Manufacturer:

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Order Code: A-NA-RLSNU

I. Product Identification

Friction Material - Resin Bound Lining Strips for Drum Brakes.
NU-2G and NU-3G

No CAS numbers apply to product as supplied.

II. Hazardous Ingredients

<13% Mica	3mg/M3 respirable and 6mg/M3 total ACGIH 20 mppcf OSHA 2-3
<1 1/2% Graphite	15 mppcf ACGIH

Non-hazardous ingredients, according to OSHA, but with standards recommended by suppliers are: ceramic fiber and aramid fiber both with 2.0 f/cc recommended.

Percentage references are for raw material by weight. As manufactured, above ingredients have become part of a bound system through resin and/or other binder additions (as well as pressing, curing, processing the product into the configuration required for the particular application). Additionally, the combination of chemicals creates a chemically bound situation as well, so that the end product no longer exhibits the properties of the individual components as listed above.

III. Physical Data

<u>Insoluable</u>	Specific Gravity - 1.4-2.4 where H2O = 1
<u>Appearance and Odor</u>	Reddish brown to grey black with resinous, oil or rubber odor. Lining Strips, Disc Pads, Clutch, Brake Block, Commercial or Industrial Friction Material.

IV. Fire and Explosion Hazard Data

<u>Flash Point</u>	Above 600 C (1112 F) Oxygen enriched atmosphere
<u>Extinguishing Media</u>	Water Fog, CO2, Foam or dry chemical. Use that which is appropriate for surrounding fire.
<u>Special Fire Fighting Procedures</u>	None
<u>Unusual Fire and Explosion Hazards</u>	No explosion hazard, flammable only in oxygen rich temperatures in excess of 600 C.

V. HEALTH HAZARD DATA

A. Primary route of exposure: Inhalation

B. Threshold Limit Value: See individual raw material guidelines in Section II. Overall inert or nuisance mineral dusts should be maintained below 15mg/M3 in total and below 5mg/M3 as the respirable fraction (OSHA 1910.1000 Table Z-3). (ACGIH recommends 10mg/M3 total and 5mg/M3 respirable.) Our employees are required to keep fiber counts below .5 f/cc. regardless of fiber type.

C. Effects of Overexposure:

Short Term Effects: Temporary irritation or rash may occur on skin of some individuals in prolonged contact. Dust of any sort blocks the airways, reduces visibility, and may cause unpleasant deposits in ears, eyes and nasal passages, and extremely dusty condition may cause coughing and sneezing. No other short term effects known.

Long Term Effects: Lung damage can result if subjected to extended duration of high dust exposure without use of respiratory protection.

D. Emergency and First Aid Procedures: Avoid breathing dust and fiber. If inhaled, remove to fresh air. Drink water to clear throat and blow nose. (If dust is generated above TLV, respirators must be worn.) Good hygiene recommended by washing hands and face with soap and water prior to eating or smoking. If skin is sensitive, a soothing ointment may be applied to irritated skin after cleansing.

VI. REACTIVITY DATA

Stable material with no known incompatibilities or inherent hazardous decomposition products, except those named in Section II.

VII. SPILL OR LEAK PROCEDURES

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

As manufactured all products are bound. Vibration in shipping may create small quantities of dust or fiber which should not be inhaled. Machining, grinding, riveting will also create dust particles which should be vacuumed or wet prior to removal. Immediately repair broken bags containing dust. Use respirator if airborne dust is present. Do not use compressed air to remove dust. If mopping is necessary, use water or dust suppressant to keep below TLV's.

B. Waste Disposal Method: Scrap pieces should be disposed of in such a way as to prevent airborne dust and fiber. Place dust from grinding and use in airtight containers, marked properly and placed in landfill which handles in compliance with all Federal, State and Local regulations.

VIII. SPECIAL PROTECTION INFORMATION

A. Respiratory Protection: Respirator to comply with OSHA Std. 1910.134 such as JM 8710 or other NIOSH/MSHA approved respirator, if TLV's exceeded.

B. Local Exhaust: Use adequate exhaust ventilation when grinding or machining to draw dust away from workers to prevent routine inhalation. Do not blow dust with compressor.

Mechanical (General) Remove wear dust with vacuum equipment fitted with Hepa Filter.

C. Eye Protection: Comply with OSHA 1910.133. Dust may cause temporary irritation or inflammation. If TLV's exceeded, do not wear contact lenses. Goggles recommended if machining. Flush eyes with generous amount of water if irritated.

D. Protective Gloves: If irritation of skin occurs or product is abrasive, gloves may be worn.

E. Other: Practice good hygiene; wash thoroughly after handling.
Do not wash dust laden clothing with other items. Comply with OSHA Std. 1910.132, 133, 134.

IX. SPECIAL PRECAUTIONS

Monitor to determine if Dust or Fiber is released above permissible time weighted averages. Clean storage areas of dusts by vacuuming. Use every precaution to keep airborne dusts to a minimum.

NOTE:

All data contained herein is based on information from raw material suppliers with cross checks against ACGIH data and OSHA TLV's and is believed to be reliable. However, it is the user's responsibility to determine the safety of the product for his own use. Nuturn has no control on the actual use by others and cannot assume liability for the effects of such use. Governmental regulations or acquisition of additional information may necessitate revisions to any or all sections of this data sheet and such data will be supplied as it becomes available. User is also responsible for obtaining up-to-date information as appropriate.