

Material Safety Data Sheet

Section I

Product Name

ASBESTOS-FREE DISC BRAKE MATERIALS (MORSE-NA19-FF/MORSE-AV-FF/MORSE-AN-FF/MORSE-AR-FF/ZAF-72-FF/ZAF-74-FF/ZAF-75-FF/ZAF-76-FF/BPS-372-FF/BPS-374-FF/BPS-375-FF/BPS-376-FF)

Manufacturer

Morse Automotive

4130 S. Morgan St.
Chicago, IL 60304

Emergency Telephone Number
770-607-2222

Telephone Number for Information
770-607-2222

Date of preparation:
November 20, 1992

Section II - Hazardous Ingredients/Identity Information

Hazardous Components

(Specific Chemical Identity: Common Names(s))

%

OSHA PEL

ACGIH TLV

Notes

Phenolic resin

- Phenol**

- Formaldehyde**

- Ammonia**

- Calcium hydroxide

Mineral fibers/Fibrous pulp

Mineral oil

Carbon Black

Coal (less than 5% SiO₂)

Coke

Graphite

Transition metal oxides

Aluminum oxide

Calcium carbonate

Mica

Crumb rubber

Ferrous metal powders/fibers

Fibrous glass

*

5 ppm

5 ppm

skin notation

*

0.75 ppm

0.3 ppm(A)

primary irritant

*

50 ppm

25 ppm

primary irritant

*

15 mg/m³(B)

5 mg/m³

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*

15 mg/m³(B)

10 mg/m³(B)

total dust(C)

*

5 mg/m³

5 mg/m³

mist

*

3.5 mg/m³

3.5 mg/m³

total dust

* 2.4 mg/m³/(%SiO₂+2)

2 mg/m³

respirable dust

*

15 mg/m³(B)

10 mg/m³(B)

total dust(C)

*

15 mg/m³

2 mg/m³

respirable dust

*

1 mg/m³

0.5 mg/m³

(D)

*

15 mg/m³(B)

10 mg/m³

--

*

15 mg/m³

10 mg/m³

total dust(C)

*

20 mppcf

3 mg/m³

respirable dust

*

15 mg/m³(B)

10 mg/m³(B)

total dust(C)

*

15 mg/m³(B)

10 mg/m³(B)

total dust(C)

*

15 mg/m³(B)

10 mg/m³

total dust(C)

* The exact percentage of ingredients in this product is proprietary information. Only components which may be health hazards as defined in 29 CFR 1910.1200 are listed above. Information necessary for emergency health or hazard health investigations will be released to medical or health and safety personnel under signed confidentiality agreements.

** Phenolic resin system in this product is fully cured. Only trace amounts of these materials may be present.

(A) The ACGIH lists formaldehyde as a suspect human carcinogen.

(B) As particulates not otherwise regulated.

(C) Respirable dust exposure limits for these components are 5 mg/m³.

(D) May contain trace amount of hexavalent chromium, a human carcinogen.

Section III - Physical/Chemical Characteristics

Boiling Point/Melting Point	N/A	Specific Gravity (Water=1)	1.9 to 2.5
Vapor Pressure (mmHg)	Very low	Vapor Density (Air=1)	N/A
Solubility in Water	Insoluble	Evaporation Rate (Butyl Acetate=1)	N/A

NFP Chemical Hazard Rating Health=1 (slight) Fire=1 (slight) Reactivity=1 (slight)

Appearance and Odor
Greenish gray solid. No odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammability	N/A	LEL	N/A	UEL	N/A
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Extinguishing Media
ABC Dry Chemical as appropriate for surrounding fire.

Unusual Fire & Explosion Hazards
This material may produce irritating smoke in smoldering fire.

Special Fire Fighting Procedures
Suggested respiratory protection: positive pressure, self-contained breathing apparatus approved by NIOSH/MSHA.

Section V - Reactivity Data

Stability	Unstable N/A	Conditions to Avoid No known hazard during normal industrial use. Avoid temperatures greater than 800 °F.
	Stable YES	

Incompatibility (Materials to Avoid)
Strong acids and other oxidizing agents.

Hazardous Decomposition or Byproducts
Normal combustion products: carbon monoxide, carbon dioxide, and soot.
Product specific combustion products: ammonia, oxides of nitrogen, phenols, and aldehydes.
Revision to hexavalent chromium may occur at elevated temperatures (0.1% max).

Hazardous Polymerization	Will Not Occur	Conditions to Avoid	N/A
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Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	YES	NO	UNLIKELY

Health Hazards (Acute & Chronic)
None during normal industrial use. Exposure to nuisance dusts may occur during dry grinding.

Carcinogenicity	NTP? NO	IARC Monographs? NO	OSHA Regulated? NO
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Signs & Symptoms of Exposure
None during normal industrial use.

Medical Conditions Generally Aggravated by Exposure
None during normal industrial use.

Emergency & First Aid Procedures

Eye Contact - Immediately flush eyes with water for 15 minutes. If irritation persists, consult a physician.
Skin Contact - No known hazard during normal industrial use.
Inhalation - In case of irritation, remove to fresh air.
Ingestion - No known hazard during normal industrial use.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled
Material is a solid. Sweep (scoop) up and remove to a solid waste disposal area.

Waste Disposal Method
Dispose according to applicable federal, state and local regulations.

Precautions to be Taken in Handling & Storing
Segregate stored material from oils and strong oxidizing agents. Keep away from electrical discharges, welding, open flames, extreme heat, and other sources of potential ignition.

Other Precautions
No special DOT classification.

Section VIII - Control Measures

Respiratory Protection (Specify Type)
None required during normal industrial use. Respiratory protection suitable for the measured nuisance dust level encountered is recommended during dry grinding. Minimally, a NIOSH approved dust mask should be worn during dry grinding.

Ventilation	Local Exhaust None during normal industrial use. Recommended during dry grinding.	Special None during normal industrial use.
	Mechanical (General) None during normal industrial use. May be required during dry grinding.	Other None during normal industrial use.

Protective Gloves
None during normal industrial use.

Eye Protection
None during normal industrial use. Goggles or safety glasses with side shields are recommended during dry grinding.

Other Protective Clothing or Equipment
None during normal industrial use.

Work/Hygienic Practices
Standard hygienic practices during normal industrial use.

Section IX - SARA Title III Information

This product may contain phenol, formaldehyde, ammonia, and aluminum oxide (fibrous forms) and, therefore, may be subject to the reporting requirements of Section 313, Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372 if present or used in sufficient quantities.

Section X - California (Proposition 65) Information

This product, as sold, is not believed to contain any chemical known to the state of California to cause cancer, birth defects, or other reproductive "harm".

Prepared by: Millard P. Griffin, Jr, CIH, Clayton Environmental Consultants, Inc.
For: Tenneco Automotive Brake
Date: November 20, 1992

Revised by: Millard P. Griffin, Jr, CIH, CSP, Clayton Environmental Consultants, Inc.
For: Tenneco Automotive Brake
Date: September 23, 1994

Revised by: D. R. Carter, BrakePro, Inc. (Changed names, area code, address, and material names only)
For: BrakePro, Inc.
Date: April 23, 1996

Revised by: Velvet J. Elrod, M.A. EAST, Inc. (Changed company name and telephone number only)
For: M.A. EAST, Inc.
Date: February 18, 1998

Revised by: Tim Henderson, M.A. EAST, Inc. (Deleted obsolete and added new Codes to Product Name Section only)
For: M.A. EAST, Inc.
Date: September 3, 1999

Revised by: Brian Kirts (Deleted obsolete and added new Codes to Product Name Section only)
For: Morse Automotive Corp.
Date: September 3, 2001

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