1. Chemical product and Company Identification

1.1 Product specification

1.2 CEN 105XXXXX 15AA9889 FF A16

1.3 Address Producer/Suppliers

1.3.1 P

Composition/Detail of Components

1.4 Chemical Characterization: Product

1.4.1 Description: This non-asbestos friction material is a multi-ingredient with system resins and rubber as a binding agent in a cured and vulcanized form.

1.5 Hazardous substance:

2.2.1

Ingredient	Percent (w/w)
Barium Sulphate	6-10%
Synthetic Graphite	5-8%
Aramid Fiber	3-5%
Phenolic Resin	6-8%
Antimony Trisulfide	5-8%
Copper	8-11%
Potassium Titanate	12-18%

2. Hazards Identification

This is a solid disc brake black in color**.** There is no hazard when using the production correctly.

Potential Health Effects:

Ingestion: not available

Inhalation: see section 4.4 Skin:

see section 4.2

Eye: see section 4.3

InformationonIngredients:

ExposureRoutes:notavailable

Symptoms: not available

4. First Aid Measures

General Advice: There is no direct danger arising from the product and the ingredients. Contact with skin/eyes can cause irritations due to fiber-constituents.

Skin contact: After contact with powder constituents, wash off thoroughly with water.
Eyes contact: After contact with powder constituents, rinse with water thoroughly.
Inhalation Not a hazard under normal use conditions
Additional information Use NIOSH-approved respirator if exposure to dust in concentrations exceeding PEL's or TLV's is possible.

Fire Fighting Measures

Suitable Extinguishing Agents: Water, Foam, ABC-powder, carbon dioxide (CO_2).
Special dangers caused by the material, its combustion or developing gases see section
Flash Point: Not applicable
Lower Explosion Limit: Not applicable
Upper Explosion Limit: Not applicable
Auto ignition Temperature: Not determined **Material will burn in fire.**
Special protective equipment and precautions for firefighters：
Fire fighters should be equipped with NIOSH – Apparatus (SCBA) and full protective clothing

Measures When Unintentionally Released

Additional Notes: Information for safe handing see section 7.
Information for product disposal see section 13.

Handling and Storing

Handling
Information for safe handling:
Avoid generating dust from this product. Clean up using methods that do not generate dust such as a HEPA vacuum or wet clean up. Avoid pneumatic removal of dust. If dust is generated, use a NIOSH approved respirator.
Minimize dust generation and accumulation.
Dust removing by suitable industrial vacuum – cleaner or central exhausting.
Storing
Store in a dry and ventilated storeroom. Do not store together with corrosive substances.

Exposure Controls and Personal Protection

Exposure guidelines: Barium sulfate (7727-43-7)
ACGIH:10 mg/m3 TWA
OSHA:10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction). NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust).

Graphite (7782-42-5)
ACGIH: 2 mg/m3 TWA (respirable fraction, all forms except graphite fibers) OSHA: 2.5mg/m3 TWA (respirable dust).
NIOSH: 2.5mg/m3 TWA (respirable dust).

Potassium Titanate (1344-28-1)
ACGIH:10 mg/m3 TWA (as Al, particulate matter containing no asbestos and <1% crystalline silica)
OSHA: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Exposure limits for Particulates not otherwise regulated (Nuisance dust)
OSHA:
PEL: 15mg/m3 total dust; 5 mg/m3 respirable fraction ACGIH:
TLV: 10mg/m3 total dust; 3 mg/m3 respirable fraction

General Measures for Protection and Hygienic: Don't eat, drink or smoke while working.
Respiratory Protection: Use NIOSH-approved respirator if exposure to dust in concentrations exceeding PEL's or TLV's is possible.
Hand Protection: Wash thoroughly after handling.
Body Protection: Wear light protecting clothes.

Physical and Chemical Properties

Characteristics

Physical State:	Solid
Color:	Black
Odor:	Not characteristic
Density @20ºC	2.5 g/cm³
Solubility:	Practically insoluble in water
PH @20ºC	8.5

Stability and Reactivity

Substances to be avoided: See Section 7.2.1
Chemical Stability: the product is stable under normal ambient temperature and pressure
Hazardous Decomposition Products:
At temperature> 300ºC depending on reaction conditions in changing composition: CO, H, phenol-aromatic and aliphatic hydro-carbonic.
Possibility of Hazardous Reactions: None expected.

Information on Toxicity

Component carcinogenicity: Potassium titanate (1344-28-1)
ACGIH: A4 – Not Classifiable as a Human Carcinogen
Para- Aramid fibrils (24938-64-5)
ACGIH: Monograph 68, 1997(Group 3 (not classifiable))

Acute toxicity:
Steel fiber (7439-89-6)
Oral LD50 Rat: 30gm/kg

Ecological Effects

Ecotoxicological Information: Aquatic toxicity (Acute)**:** No hazard **Terrestrial** Toxicity: No hazard
Chemical Fate Information: not available
Biodegradability: Not available

Disposal Considerations

Waste disposal: Disposal should be in accordance with applicable regional national and local laws and regulations. Local regulations may be more stringent than regional or national requirements
Recommendation: Recover or recycle if possible.

Transport/Regulations

Non – regulated by DOT, TDGR, ICAO/IATA, and IMDG.

Regulations

Inventory status:
United States (TSCA): para-Aramid fibrils (24938-64-5) is not on the **TSCA** listing, all other ingredients are on the inventory or exempt from listing
Canada: Feldspar (68476-25-5) , para-Aramid fibrils (24938-64-5) is not on the DSL listing or NDSL listing**, Cashew dust (68602-89-1)** is on the NDSL listing, and all other ingredients are on the DSL inventory or exempt from listing .
Other regulations, limitations and prohibitions: SARA Title Rules
Sections 311/312 Hazard Classes Fire hazard: no hazard Reactive hazard: no hazard Release of pressure: no hazard Acute Health Hazard: no hazard Chronic Health Hazard: no hazard

Other Information:

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