SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS (CONTINUED)

Ingredient*	CAS No.:	% Weight	OSHA PEL	ACGIH TLV (2006)
Lithium Potassium Titanium oxide	39318-30-4	>1	None Established	5 mg/m^3 (respirable)
Magnesium oxide	1309-48-4	>1	15 mg/ m^3 (note B)	10 mg/m^3 (respirable dust)
Mica (in TN0184, TN0270 only)	12001-26-2	>1	20 mppcf, <1% crystalline silica	3 mg/m^3 (respirable)
Mineral Fiber (Bio-soluble only)	287922-11-6	>1	None Established	None Established
Mineral Fiber (Exempt) (in 4240 only)	65997-17-3	>1	None Established	None Established
Mullite	1302-93-8	>1	None Established	None Established
Molybdenum sulfide	1317-33-5	>1	15 mg/m^3	10 mg/m^3
Resin Modifier	68083-18-1	<1	None Established	None Established
Rubbers (Natural, Nitrile, Silicone, Chlorobutyl, and Tire peels)	NE, 9003-18-3, 63394-02-5, 9010-85-9 9006-04-6 139497-04-4	>1	None Established	None Established
Petroleum Coke	64743-05-1	>1	None Established	None Established
Purified Petroleum coke (granules)	7440-44-0	>1	None Established	None Established
Phenolic Resin-Cured	9003-35-4	>1	None Established	None Established
Polyester plasticizer	68604-67-1	<1	None Established	None Established
Potassium titinate (fibrous, non-respirable) (see table D)	12056-51-8	>1	None Established	None Established
Magnesium potassium titanium oxide flake	39290-90-9	>1	None Established	None Established
Silicon carbide (non-fibrous only)	409-21-2	>1	15 mg/m^3 (note B)	None Established
Steel Fiber	65997-19-5	>1	None Established	None Established
Tin	7440-31-5	>1	2 mg/m^3	2 mg/m^3
Tin Sulfide	1314-95-0	>1	2 mg/m^3	2 mg/m^3
Titanium dioxide	13463-67-7	>0.1	10 mg/m^3 (note B)	10 mg/m^3 (note B)
Vermiculite	1318-00-9	>1	None Established	None Established
Wollastonite	13983-17-0	>1	None Established	None Established
Zinc (dust) (note F) & Zinc alloyed (note E)	7440-66-6	>1	None Established	None Established
Zinc oxide (dust) (note E)	1314-13-2	<1	15 mg/ m^3 (note B)	2 mg/m^3 (respirable)
Zinc sulfide	1314-98-3	>1	None Established	None Established
Zirconium oxide	1314-23-4	>1	5 mg/m^3 (as zirconium)	5 mg/m^3 (as zirconium)
Zirconium silicate	10101-52-7, 14940-68-2	>1	5 mg/m^3 (as zirconium)	5 mg/m^3 (as zirconium)

(note A): As synthetic vitreous fibers, respirable
(note B): As total particulate (not otherwise regulated)
(note D) Found in formulas Fer/FM 4240, TN 0043, TN0184, FM 2243S, 1478-12 & 1478-69 only
(note E): Bronze chips (Cu+Sn) (in Fer/FM 4088 series, 4176 series, 4188, 4212, 4550, 4576, and 4578)
Brass fibers (Cu+Zn) (in FM2243S, HP1000/1, MX 4129, 1478-12, 1478-69, and 1143-301)
(note F): For elemental copper (dust & fiber)… see Section 15,
For elemental zinc (dust)… see Section 15

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Shipped friction materials are not considered hazardous, but operations (e.g., overheating, burning, machining, abrading, or riveting) that can create airborne dust should be avoided. Such operations could cause exposures in excess of permissible exposure limits for the respective ingredients and should be considered hazardous. Prolonged or repeated exposure may cause lung injury, including silicosis. This product may contain impurities like crystalline silica. Crystalline silica has been classified by IARC as a known human carcinogen. Some human studies indicate potential for lung cancer from crystalline silica exposure. Risk of injury depends on duration and level of exposure. Long-term exposures that result in silicosis may result in additional health effects.