Material	Minimum Cloud or Layer Ignition Temperature 1 °F		°C
CLASS II, GROUP E METAL DUSTS			
Aluminum, atomized collector fines	1022	CI	550
Aluminum, A422 flake	608		320
Aluminum - cobolt alloy (60-40)	1058		570
Aluminum - copper alloy (50-50)	1526		830
Aluminum - lithium clloy (15% Li)	752		400
Aluminum - magnesium alloy (Dowmetal)	806	CI	430
Aluminum nickel alloy (58-42)	1004		540
Aluminum - silicon alloy (12% Si)	1238	NL	670
Boron, commercial-amorphous (85% B)	752		400
Calcium Silicide	1004		540
Chromium (97%) electrolytic, milled	752		400
Ferromanganese, medium carbon	554		290
Ferrosilicon (88%, 9% Fe)	1472		800
Ferrotitanium (19% Ti, 1% Fe, 0.06% C)	698	CI	370
Iron, 98% H 2 reduced	554		290
Iron, 99%, Carbonyl	590		310
Magnesium, Grade B Milled	806		430
Manganese	464		240
Silicon, 96%, milled	1436	CI	780
Tantalum	572		300
Thorium, 96%, O 2	518	CI	270
Tin, 96%, atomized (2% Pb)	806		430
Titanium, 99%	626	CI	330
Titanium Hydride, (95% Ti, 3.8% H 2)	896	CI	480
Vanadium Hydride, (93.6% Zr, 2.1% H 2)	914		490
Zirconium Hydride (93.6% Zr, 2.1% H 2)	518		270
CLASS II, GROUP F CARBONACEOUS DUSTS			
Asphalt (Brown Petroleum Resin)	950	CI	510
Charcoal	356		180
Coal, Kentucky Bituminous	356		180
Coal, Pittsburgh Experimental	338		170
Coal, Wyoming	-		-
Gilsonite	932		500
Lignite, California	356		180
Pitch, Coar, Tar	1310	NL	710
Pitch, Petroleum	1166	NL	630
Shale, Oil	-		-
CLASS II, GROUP G AGRICULTURAL DUSTS			
Alfalfa Meal	392		200
Almond Shell	392		200
Apricot Pit	446		230
Cellulose	500		260
Cherry Pit	428		220
Cinnamon	446		230
Citrus Peal	518		270
Cocoa, Bean, Shell	698		370
Cocoa, Natural, 19% fat	464		240
Coconut Shell	428		220
Corn	482		250
Corncob Grit	464		240
Corn Dextrine	698		370
Cornstarch, commercial	626		330

Cornstarch, modified	392		200
Cork	410		210
Cottonseed Meal	392		200
Cube Root, South America	446		230
Flax Shive	446		230
Garlic, dehydrated	680	NL	360
Guar Seed	932	NL	500
Gum, Arabic	500		260
Gum, Karaya	464		240
Gum, Manila (copal)	680	CI	360
Gum, Tragancanth	500		260
Hemp Hurd	428		220
Lycopodium	590		310
Malt Barley	482		250
Milk, Skimmed	392		200
Pea Fluor	500		260
Peach Pit Shell	410		210
Peanut Hyll	410		210
Peat, Spaghum	464		240
Pecan Nut Shell	410		210
Pectin	392		200
Potato Starch, Dextrinated	824	NL	440
Pyrethrum	410		210
Rauwolfa Vormitoria Root	446		230
Rice	428		220
Rice Bran	914	NL	490
Rice Hull	428		220
Safflower Meal	410		210
Soy Fluor	374		190
Soy Protein	500		260
Sucrose	662	CI	350
Sugar, Powdered	698	CI	370
Tung Kernels, Oil-Free	464		240
Walnut Shell, Black	428		220
Wheat	428		220
Wheat Fluor	680		360
Wheat Glutin, gum	968	NL	520
Wheat Starch	716	NL	380
Wheat Straw	428		220
Woodbark, Ground	482		250
Wood Fluor	500		260
Yeast, Torula	500		260
CLASS II, GROUP G CHEMICALS			
Acetoacetanilde	824	M	440
Acetoacet-o-phenetidide	1040	NL	560
Adipic Acid	1022	M	550
Anthranilic Acid	1076	M	580
Aryl-nitrosomerhylanide	914	NL	490
Azelaic Acid	1130	M	610
2.2 Azo-bis-butyronitrile	662		350
Benzoic Acid	824	M	440
Benzotriazole	824	M	440
Bisphenol-A	1058	M	570
Chiloroacetoacetanilde	1184	M	640
Diallyl Phthalate	896	M	480
Dicumyl Peroxide (suspended on CaCO 3), 40-60	356		180
Dicyclopentadiene Dioxide	788	NL	420
Dihydroacetic Acid	806	NL	430
Dimethyl Isophthalate	1076	M	580
Dimethyl Terephthalate	1058	M	570
3.5-Dinitrobenzoic Acid	860	NL	460

Dinitritoluamide	932	NL	500
Diphenyl	1166	M	630
Dietertiary Butyl Paracresol	878	NL	470
Ethyl Hydroxyethyl Cellulose	734	NL	390
Fumaric Acid	968	M	520
Hexamethylebe Tetramine	770	S	410
Hydroxyethyl Cellulose	770	NL	410
Isotoic Anhydride	1292	NL	700
Methionine	680		360
Nitrosoamine	518	NL	270
Para-oxy-benzaldehyde	716	CI	380
Paraphenylene Diamine	1148	M	620
Para tertiary Butyl Benzonic Acid	1040	M	560
Pentaerythritol	752	M	400
Phenylbetanphthylamine	1256	NL	680
Phthalic Anydride	1202	M	650
Phthalimide	1166	M	630
Salicylanilide	1130	M	610
Sorbic Acid	860		460
Stearic Acid, Aluminum Salt	572		300
Stearic Acid, Zinc Salt	950	M	510
Sulfur	428		220
Terephthalic Acid	1256	NL	680
CLASS II, GROUP G DRUGS			
2-Acetylamino-5-nitrothiazole	842		450
2-Amino-5-nitrothiazole	860		460
Aspirin	1220	M	660
Guilasonic Acid, Diacetone	788	NL	420
Mannitol	860	M	460
Nitropyridone	806	M	430
1-Sorbise	698	M	370
Vitamin B1, monoitrate	680	NL	360
Vitamin C (Ascorbic Acid)	536		280
CLASS II, GROUP G DYES, PIGMENTS, INTERMEDIARIES			
Beta-napthalene-azo-Dimethylaniline	347		175
Green Base Harmon Dye	347		175
Red Dyr Intermediate	347		175
Violet 200 Dye	347		175
CLASS II, GROUP G PESTICIDES			
Benzethonium Chloride	716	CI	368
Bis (2-Hydroxy-5-chlorophenyl) methane	1058	NL	570
Crag No. 974	590	CI	310
Diedrin (20%)	1022	NL	550
2.6-Ditertiary-butyl-paracresol	788	NL	420
Dithane	356		180
Ferbam	302		150
Manganese Vancide	248		120
Sevin	284		140
Trithiobis (N,N-Diemethylthio-formamide)	446		230
CLASS II, GROUP G THERMOPLASTIC RESINS & MOLDING COMPOUNDS			
Acetl Resins			

Acetal, Linear (Polyformaldehyde)	824	NL	440
Acrylic Resins			
Acrylamide Polymer	464		240
Acrylonitrile Polymer	860		460
Acrylonitrile-Vinyl-Pyridine-Copolymer	464		240
Acrylonitrile-Vinyl-Chloride-Vinylidene Chloride Copolymer (70-20-10)	410		210
Methyl Methacrylate Polymer	824	NL	440
Methyl Methacrylate-Ethyl-Acrylate Copolymer	896	NL	480
Methyl Methacrylate-Ethyl Acrylate Styrene Copolymer	824	NL	440
Methyl Methacrylate-Styrene-Butadiene Acrylonitrile Copolymer	896		480
Methacrylic Acid Polymer	554	NL	290
Cellulosic Resins			
Cellulose Acetate	644		340
Cellulose Triacetate	806	NL	430
Cellulose Acetate Butyrate	698	NL	370
Cellulose Propionate	860	NL	460
Ethyl Cellulose	608	CI	320
Methyl Cellulose	644		340
Carboxymethyl Cellulose	554		290
Hydroxethyl Cellulose	644		340
Chlorinated Polyether Resins			
Chlorinated Polyether Alcohol	860		460
Nylon (Polyamide) Resins			
Nylon Polymer (Polyhexa-methylene Adipamide)	806		430
Polycarbonate Resins			
Polycarbonate	1310	NL	710
Polyethylene Resins			
Polyethylene, High Pressure Process	716		380
Polyethylene, Low Pressure Process	788	NL	420
Polyethylene Wax	752	NL	400
Polymethylene Resins			
Carboxpolyethylene	968	NL	520
Polypropylene Resins			
Polypropylene (No Antioxidant)	788	NL	420
Rayon Resins			
Rayon (Viscose) Flock	482		250
Styrene Resins			
Polystyrene Molding Compound	1040	NL	560
Polystyrene Latex	932		500
Styrene-Acrylonitrile (70-30)	932	NL	500
Styrene-Butadiene Latex (< 75% Styrene; Alum coagulated)	824	NL	400
Vinyl Resins			
Polyvinyk Acetate	1022	NL	550
Polyvinyl Acetate Alcohol	824		440
Polyvinyl Butyrate	734	NL	390
Vinyl Chloride-Acrylonitrile Copolymer	878		470
Polyvinyl Chloride-Dioctyl Phthalate Mixture	608	NL	320
Vinyl Toluene-Acrylonitrile Butadiene Copolymer	936	NL	530

CLASS II, GROUP G THERMOSETTING RESINS & MOLDING COMPOUNDS			
Allyl Resins			
Allyl Alcohol Derivative (CR-39)	932	NL	500
Urea Formaldehyde Molding Compound	860	NL	460
Urea Formaldehyde-Phenol Formaldehyde Molding Compound (Wood Fluor Filler)	464		240
Epoxy Resins			
Epoxy	1004	NL	540
Epocy - Bisphenol A	950	NL	510
Phenol Furfural	590		310
Phenolic Resins			
Phenol Formaldehyde	1076	NL	580
Phenol Formaldehyde Molding Compound (Wood Fluor Filler)	932	NL	500
Phenol	554		290
Polyester Resins			
Polyethylene Terephthalate	932	NL	500
Styrene Modified Polyester-Glass Fiber Mixture	680		390
Polyurethane Resins			
Polyurethane Foam, No Fire Retardant	824		440
Polyurethane Foam, Fire Retardant	734		390
CLASS II, GROUP G SPECIAL RESINS & MOLDING COMPOUNDS			
Alkyl Ketone Dirner Sizing Compound	320		160
Cashew Oil, Phenolic, Hard	356		180
Chlorinated Phenol	1058	NL	570
Coumarone-Indene, Hard	968	NL	520
Ethylene Oxide Polymer	662	NL	350
Ethylene-Maleic Anhydride Copolymer	1004	NL	540
Lignin, Hydrolized, Wood-Type, Fines	842	NL	450
Petrin Acrylte Monomer	428	NL	220
Petroleum Resin (Brown Asphalt)	932		500
Rosin, DK	734	NL	390
Rubber, Crude, Hard	662	NL	350
Rubber, Synthetic, Hard (33% S)	608	NL	320
Shellac	752	NL	400
Sodium Resinate	428		220
Styrene-Maleic-Anhydride Copolymer	878	CI	470

1 Since the minimum ignition temperture of a layer of a speciific dust is not always lower that the minimum temperature of a cloud of dust, the lower of the two minimum ignition temperatures is listed. If no symbol appears between the two temperature columns, then the layer ignition temperature is shown. " CI " means the cloud ignition temperature is shown. " NL " means that no layer ignition temperature is available and the cloud ignition temperature is shown. " M " means that the dust layer melts before it ignites and the cloud temperature is shown." S " means that the dust layer sublimes before it ignites and the cloud ignition temperature is shown.

2 Certain metal dusts may have characteristics that require safeguards beyond those required for atmospheres containing the dusts of aluminum, magnesium and commercial alloys. As an example, thorium, uranium and zirconium dusts have extremely low ignition temperatures (as low as 20°C) and minimum ignition energies, lower than any material classified in any Class I or Class II Groups.