

Attachment 1

Dangerous and Harmful Materials Designated by the Competent Authority of the Central Government

I . Dangerous Materials

1. The following explosive materials:

- (1) Nitroglycerin, nitroglycol, nitrocellulose, and other explosive nitric esters etc.
- (2) Trinitrobenzene, trinitrotoluene, picric acid and other explosive nitro-compounds.
- (3) Peracetic acid, methyl ethyl ketone peroxide, dibenzoyl peroxide and other organic peroxides.

2. The following ignitable materials:

- (1) Flammable solids mean phosphorous sulfide, red phosphorous, celluloids, etc. that are solids easily ignitable by external ignition sources and burned rapidly.
- (2) Pyrophoric substances mean yellow phosphorus, sodium dithionite, aluminium powder, magnesium powder, and other metallic powders that are solids or liquids capable of self-heating or self-ignitable.
- (3) Water-reactive substances mean metallic potassium, metallic lithium, metallic sodium, calcium carbide, calcium phosphide, and other substances that can release flammable gases upon contact with water.

3. The following oxidizing materials:

- (1) Potassium chlorate, sodium chlorate, ammonium chlorate, and other chlorates.
- (2) Potassium perchlorate, sodium perchlorate, ammonium perchlorate and other perchlorates.
- (3) Potassium peroxide, sodium peroxide, barium peroxide, and other inorganic peroxides.
- (4) Potassium nitrate, sodium nitrate, ammonium nitrate, and other nitrates.
- (5) Sodium chlorite and other chlorites.
- (6) Calcium hypochlorite and other hypochlorites.

4. The following flammable liquids:

- (1) Ethyl ether ,gasoline, acetaldehyde, propylene oxide, carbon disulfide, and any substance having a flash points below -30°C .
- (2) n-Hexane, ethylene oxide, acetone, benzene, methyl ethyl ketone, and any substance with a flash points of -30°C or higher but lower than 0°C .
- (3) Ethanol, methanol, xylene, amyl acetate and any substance with flash points of 0°C or higher but lower than 30°C .
- (4) Kerosene, light oil, turpentine oil, isopenthyll alcohol, acetic acid, and any substances with a flash points of 30°C or higher but lower than 65°C .

5. The following flammable gases:

- (1) Hydrogen
- (2) Acetylene, ethylene
- (3) Methane, ethane, propane, butane
- (4) Any gas that is flammable at 15°C and 1 atmosphere.

6. The following explosive products:

- (1) Powder: The products whose relatively slow explosive reaction is in the form of rapid burning without obvious damages as the result of explosion, include:
 - 1.Smoke explosives of black powder and other nitrate type
 - 2.Smokeless explosives of nitrocellulose base
 - 3.Smokeless explosives of nitrocellulose and nitroglycerine base
 - (2) Dynamite: The products whose explosion is in the form of detonation and react very quickly with severe damages caused by the explosion, include:
 - 1.Priming explosive of mercury fulminate, lead azide, triphenyl lead, and diazophenol.
 - 2.Nitroglycerine and nitro-ester
 - 3.Nitrate explosives
 - 4.Mixed explosives of perchlorates and chlorates
 - 5.Nitro compound explosives of trinitrophenol and trinitrotoluene (T.N.T.)
 - 6.Liquid oxygen explosives and other liquid explosives
 - (3) Blasting agent: The mixed products which consist of oxidizers such as ammonium nitrate as the major ingredient and need to be initiated by detonators in the enclosed devices, include:
 - 1.ANFO blasting agent
 - 2.Slurry blasting agent
 - (4) Initiator: The products which can initiate fire for burning or detonation include:
 - 1.Detonators
 - 2.Safety fuses
 - 3.Detonating cards
 - (5) Other explosive raw materials: The raw materials can directly detonate or be initiated themselves, including raw materials for making explosives such as lead azide, mercury fulminate, nitrostarch
7. Others designated by the competent Authority of the Central Government.

II . Harmful materials

1. The following materials specified in the Regulations for Governing Prevention of Organic Solvent Toxication:
 - (1) Trichloromethane
 - (2) 1,1,2,2-Tetrachloroethane
 - (3) Carbon tetrachloride
 - (4) 1,2-Dichloroethylene
 - (5) 1,2-Dichloroethane
 - (6) Carbon disulfide
 - (7) Trichloroethylene
 - (8) Acetone
 - (9) Isoamyl alcohol
 - (10) Isobutyl alcohol

- (11) Isopropyl alcohol
- (12) Ethyl ether
- (13) Ethylene glycol monoethyl ether
- (14) Ethylene glycol monoethyl ether acetate
- (15) Ethylene glycol monobutyl ether
- (16) Ethylene glycol monomethyl ether
- (17) o-Dichlorobenzene
- (18) Xylenes (o-, m-, p- isomers)
- (19) Cresol
- (20) Chlorobenzene
- (21) Amyl acetate
- (22) Isoamyl acetate
- (23) Isobutyl acetate
- (24) Isopropyl acetate
- (25) Ethyl acetate
- (26) Propyl acetate
- (27) Butyl acetate
- (28) Methyl acetate
- (29) Styrene
- (30) 1,4-Dioxane
- (31) Tetrachloroethylene
- (32) Cyclohexanol
- (33) Cyclohexanone
- (34) 1-Butyl alcohol
- (35) 2-Butyl alcohol
- (36) Toluene
- (37) Dichloromethane
- (38) Methyl alcohol
- (39) Methyl isobutyl ketone
- (40) Methylcyclohexanol
- (41) Methylcyclohexanone
- (42) Methyl butyl ketone
- (43) 1,1,1-Trichloroethane
- (44) 1,1,2-Trichloroethane
- (45) Methyl ethyl ketone
- (46) N,N-Dimethylformamide
- (47) Tetrahydrofuran
- (48) n-Hexane
- (49) Gasoline
- (50) Coal tar naphtha
- (51) Petroleum ether

- (52) Petroleum naphtha
- (53) Petroleum benzine
- (54) Turpentine
- (55) Mineral spirit (Mineral thinner, petroleum spirit, white spirit)
- (56) Others designated by the competent Authority of the Central Government.

2. The following materials specified in the Regulations for Prevention of Danger Posed by Special Hazardous Chemicals:

- (1) Yellow phosphorus match
- (2) Benzene-contained glue (containing more than 5% by weight of benzene)
- (3) Benzidine and its salts
- (4) 4-Aminodiphenyl and its salts
- (5) 4-Nitrodiphenyl and its salts
- (6) β -Naphthylamine and its salts
- (7) bis-Chloromethyl ether
- (8) Dichlorobenzidine and its salts
- (9) α -Naphthylamine and its salts
- (10) o-Tolidine and its salts
- (11) Dianisidine and its salts
- (12) Beryllium and its compounds (Beryllium Alloy containing more than 3 % by weight of Beryllium)
- (13) Benzotrichloride
- (14) Polychlorinated biphenyls
- (15) Ethyleneimine
- (16) Vinyl chloride
- (17) p-Dimethylaminoazobenzene
- (18) 3,3-Dichloro-4,4-diaminodiphenylmethane
- (19) Nickel carbonyl
- (20) Chloromethyl methyl ether
- (21) β -Propiolactone
- (22) Benzene
- (23) Acrylamide
- (24) Acrylonitrile
- (25) Chlorine
- (26) Hydrogen cyanide
- (27) Methyl bromide
- (28) Toluene 2,4-diisocyanate
- (29) Methylene bisphenyl isocyanate
- (30) Isophorone diisocyanate
- (31) Methyl isocyanate
- (32) p-Nitrochlorobenzene

- (33) Hydrogen fluoride
- (34) Methyl iodide
- (35) Hydrogen sulfide
- (36) Dimethyl sulfate
- (37) Auramine
- (38) Magenta
- (39) Asbestos
- (40) Chromic acid and chromates
- (41) Coal tar
- (42) Arsenic trioxide
- (43) Dichromic acid and its salts
- (44) Alkyl mercury compounds (Alkyl is limited to methyl and ethyl.)
- (45) o-Phthalodinitrile
- (46) Cadmium and its compounds
- (47) Vanadium pentaoxide
- (48) Potassium cyanide
- (49) Sodium cyanide
- (50) Mercury and its inorganic compounds
- (51) Nitroglycol
- (52) Pentachlorophenol and its sodium salts
- (53) Manganese and its compounds (except Manganese hydroxide)
- (54) Ammonia
- (55) Carbon monooxide
- (56) Hydrogen chloride
- (57) Nitric acid
- (58) Sulfur dioxide
- (59) Phenol
- (60) Phosgene
- (61) Formaldehyde
- (62) Sulfuric acid
- (63) Others designated by the competent Authority of the Central Government.

3. Other designated chemicals:

- (1) Acetaldehyde
- (2) Acetic acid
- (3) Acetic anhydride
- (4) Acetonitrile
- (5) Acetylene tetrabromide (1,1,2,2- tetrabromide ethane)
- (6) Acrolein
- (7) Acrylic acid
- (8) Allyl alcohol

- (9) Allyl chloride
- (10) Allyl glycidyl ether (AGE)
- (11) 2-Aminopyridine
- (12) sec-Amyl acetate
- (13) Aniline
- (14) o-, p- Anisidine
- (15) Antimony and its compounds
- (16) ANTU (α -Naphthylthiourea)
- (17) Arsine
- (18) Azinphos-Methyl
- (19) Barium and its soluble compounds
- (20) Benzyl chloride
- (21) Bipyridine
- (22) Bromine
- (23) Bromine pentafluoride
- (24) Bromoform
- (25) Boron tribromide
- (26) Boron trifluoride
- (27) 1,3-Butadiene
- (28) Butane
- (29) 1-Butanethiol
- (30) sec-Butyl acetate
- (31) tert-Butyl acetate
- (32) tert-Butyl alcohol
- (33) Butylamine
- (34) n-Butyl lactate
- (35) o-sec-Butylphenol
- (36) p-tert-Butyltoluene
- (37) Calcium cyanamide
- (38) Calcium oxide
- (39) Camphor(Synthetic)
- (40) Carbaryl
- (41) Carbofuran
- (42) Carbon dioxide
- (43) Cesium hydroxide
- (44) Chlorine dioxide
- (45) Chlorine trifluoride
- (46) Chlordane
- (47) Chloroacetaldehyde
- (48) α -Chloroacetophenone
- (49) Chloroacetyl chloride

- (50) Chlorobromomethane
- (51) 2-Chloro-1,3-butadiene
- (52) Chlorodifluoromethane
- (53) 1-Chloro-2,3-epoxypropane
- (54) Chloroethane
- (55) 2-Chloroethanol
- (56) Chloropentafluoroethane
- (57) Chloropicrin (Trichloronitromethane)
- (58) o-Chlorotoluene
- (59) Crotonaldehyde
- (60) Cumene
- (61) Cyanides
- (62) Cyclohexane
- (63) Cyclohexylamine
- (64) Cyclopentane
- (65) 2,4-D(2,4-Dichlorophenoxyacetic acid)
- (66) Decaborane
- (67) Diacetone alcohol
- (68) Diazinon
- (69) Diborane
- (70) Dichlorodifluoromethane
- (71) Dichloroethyl ether
- (72) Dichloromonofluoromethane
- (73) 1,1-Dichloro-1-nitroethane
- (74) 1,2-Dichloropropane
- (75) 1,3-Dichloropropene
- (76) 2,2-Dichloropropionic acid
- (77) Dichlorotetrafluoroethane
- (78) Dicrotophos
- (79) Dicyclopentadiene
- (80) Diethylamine
- (81) 2-Diethylaminoethanol
- (82) Diethylene triamine
- (83) Diethyl ketone
- (84) Difluorodibromomethane
- (85) Diisobutyl ketone
- (86) Diisopropylamine
- (87) Dimethylamine
- (88) N,N-Dimethylaniline
- (89) Dimethyldichlorovinyl phosphate
- (90) Dinitrobenzene

- (91) Dinitro-o-cresol
- (92) Dinitroethyleneglycol
- (93) Dinitrotoluene
- (94) o-Dioctyl phthalate
- (95) Dioxathion
- (96) Dipropyl ketone
- (97) Disulfoton
- (98) Divinybenzene (DVB)
- (99) Endosulfan
- (100) 1,2-Epoxypropane
- (101) Ethanolamine
- (102) Ethion
- (103) Ethyl acrylate
- (104) Ethylamine
- (105) Ethyl amyl ketone
- (106) Ethyl bromide
- (107) Ethyl butyl ketone
- (108) Ethylenediamine
- (109) Ethylene dibromide
- (110) Ethylene glycol
- (111) Ethylene glycol monomethyl ether acetate
- (112) Ethylene oxide
- (113) Ethyl formate
- (114) Ethyl mercaptan
- (115) Formic acid
- (116) Fluorides
- (117) Fluorine
- (118) Fluorotrichloromethane
- (119) Furfural
- (120) Furfuryl alcohol
- (121) Germanium tetrahydride
- (122) Hafnium
- (123) Heptachlor
- (124) n-Heptane
- (125) Hexachlorobutadiene
- (126) Hexachlorocyclopentadiene
- (127) Hexafluoro acetone
- (128) sec-Hexyl acetate
- (129) Hydrogen bromide
- (130) Hydrazine
- (131) Hydrogen peroxide

- (132) Hydrogen selenide
- (133) Hydroquinone
- (134) Iodine
- (135) Iron pentacarbonyl
- (136) Isopropylamine
- (137) Isopropyl ether
- (138) Lead and its inorganic compounds
- (139) Lindane
- (140) Lithium hydride
- (141) Maleic anhydride
- (142) Methyl acrylate
- (143) Methacrylic acid
- (144) Methylacrylonitrile
- (145) Methylal
- (146) Methylamine
- (147) Methyl n-amyl ketone
- (148) N-Methylaniline
- (149) Methyl chloride
- (150) Methylcyclohexane
- (151) Methyl ethyl ketone peroxide (MEKPO)
- (152) Methyl formate
- (153) Methyl hydrazine
- (154) Methyl isoamyl ketone
- (155) Methyl isobutyl carbinol
- (156) Methyl isopropyl ketone
- (157) Methyl methacrylate
- (158) Methyl parathion
- (159) Methyl propyl ketone
- (160) α -Methyl styrene
- (161) Mesityl oxide
- (162) Morpholine
- (163) Naphthalene
- (164) Nicotine
- (165) Nitric oxide
- (166) p-Nitroaniline
- (167) Nitrobenzene
- (168) Nitroethane
- (169) Nitrogen dioxide
- (170) Nitrogen trifluoride
- (171) Nitromethane
- (172) 1-Nitropropane

- (173) 2-Nitropropane
- (174) Nitrotoluene
- (175) Nonane (all isomers)
- (176) Octane
- (177) Osmium tetroxide
- (178) Oxalic acid
- (179) Oxygen difluoride
- (180) Ozone
- (181) Paraquat
- (182) Parathion
- (183) Pentaborane
- (184) Pentachloronaphthalene
- (185) Pentane
- (186) Perchloro methyl mercaptan
- (187) Perchloryl fluoride
- (188) p-Phenylenediamine
- (189) Phenylethane
- (190) Phenylhydrazine
- (191) Phenylmercaptan
- (192) Phorate
- (193) Phosdrin (Mevinphos)
- (194) Phosphine
- (195) Phosphoric acid
- (196) Phosphorus(Yellow)
- (197) Phosphorus oxychloride
- (198) Phosphorus pentachloride
- (199) Phosphorus pentasulfide
- (200) Phosphorus trichloride
- (201) Phthalic anhydride
- (202) 1-Propanol
- (203) Propionic acid
- (204) Propylene glycol monomethyl ether
- (205) Propylene imine
- (206) n-Propyl nitrate (NPN)
- (207) Pyrethrum
- (208) Pyridine
- (209) Quinone
- (210) Resorcinol
- (211) Selenium compounds
- (212) Selenium hexafluoride
- (213) Silicon dioxide

- (214) Silicon hydride (Silane)
- (215) Silver powder and its soluble compounds
- (216) Sodium azide
- (217) Sodium bisulfite
- (218) Sodium fluoroacetate
- (219) Sodium hydroxide
- (220) Stibine(Antimony hydride) (221) Sulfur hexafluoride
- (222) Sulfur monochloride
- (223) Sulfur tetrafluoride
- (224) Sulfuryl fluoride
- (225) Tellurium and its compounds
- (226) TEPP
- (227) Tetraethyl lead
- (228) 1,1,1,2- Tetrachloro -2,2- difluoroethane
- (229) 1,1,2,2- Tetrachloro -1,2- difluoroethane
- (230) Tetramethyl lead
- (231) Tetranitromethane
- (232) Tin and its inorganic compounds
- (233) Thioglycolic acid
- (234) Thionyl chloride
- (235) Thiram
- (236) m-Toluidine
- (237) o-Toluidine
- (238) p-Toluidine
- (239) Toxaphene
- (240) Trichloroacetic acid (TCA)
- (241) 1,2,4-Trichlorobenzene
- (242) 1,1,2-Trichloro-1,2,2-trifluoroethane
- (243) Triethylamine
- (244) Trifluorobromomethane
- (245) Trimethylamine
- (246) Trimethylbenzene
- (247) Trimethyl phosphite
- (248) 2,4,6-Trinitrotoluene (TNT)
- (249) n-Valeraldehyde
- (250) Vinyl acetate
- (251) Vinyl bromide
- (252) Vinyl toluene
- (253) Warfarin
- (254) Xylidine

4. Radioactive Materials: Materials that can spontaneously generate nuclear changes and release one or several kinds of ionizing radiation.
5. Others designated by the competent Authority of the Central Government.

