

Table 4-2 UN/U.S. DOT Hazard Classes

U.S. Classes and Divisions Based on UN System	Examples of Materials by U.S. Classes and Divisions	General Hazard Properties (Not All Inclusive)
Class 1		
Division 1.1—Explosive with mass explosion hazard	dynamite, TNT, black powder	Explosive; exposure to heat, shock, or contamination could result in thermal and mechanical hazards
Division 1.2—Explosive with projection hazard	ammunition, flares	
Division 1.3—Explosive with fire, minor blast, or minor projection hazard	propellant explosives, rocket motors, special fireworks	
Division 1.4—Explosive device with minor explosion hazard	common fireworks, small arms ammunition	
Division 1.5—Very insensitive explosives: blasting agents	ammonium nitrate-fuel oil mixtures	
Division 1.6—Extremely insensitive detonating articles		
Class 2		
Division 2.1—Flammable gas	propane, butadiene (inhibited) acetylene, methyl chloride	Under pressure; container may rupture violently (fire and nonfire); may be flammable, poisonous, a corrosive, an asphyxiant, and/or an oxidizer; may cause frost-bite
Division 2.2—Nonflammable, non-poisonous gas	carbon dioxide anhydrous ammonia	
Division 2.3—Poisonous gas	arsine, phosgene, chlorine methyl bromide	
Division 2.4—Corrosive Gases (Canada)		
Class 3		
Flammable Liquid	acetone amyl acetate, gasoline methyl alcohol, toluene	Flammable; container may rupture violently from heat/fire; may be corrosive, toxic, and/or thermally unstable

Table 4-2 UN/U.S. DOT Hazard Classes—*cont'd*

U.S. Classes and Divisions Based on UN System	Examples of Materials by U.S. Classes and Divisions	General Hazard Properties (Not All Inclusive)
Combustible Liquid	fuel oils	
Class 4		
Division 4.1—Flammable solid	nitrocellulose, magnesium ribbon	Flammable, some sponta- neously; may be water reactive, toxic, and/or cor- rosive; may be extremely difficult to extinguish
Division 4.2—Spontaneously combustible material	phosphorus, pyrophoric liquids and solids,	
Division 4.3—Dangerous When Wet material	calcium carbide, potassium, sodium	
Class 5		
Division 5.1—Oxidizer	ammonium nitrate fertilizer	Supplies oxygen to support combustion; sensitive to heat, shock, friction, and/or contamination
Division 5.2—Organic peroxide	dibenzoyl peroxide, peroxyacetic acid, diacetal peroxide solution	
Class 6		
Division 6.1—Poisonous material	aniline, arsenic tear gas carbon tetrachloride	Toxic by inhalation, ingestion, and skin and eye absorp- tion; may be flammable
Division 6.2—Infectious substance	anthrax, botulism, rabies, tetanus	
Class 7		
Radioactive material	cobalt, uranium hexafluoride	May cause burns and biologic effects; energy and matter
Class 8		
Corrosive material	hydrochloric acid, sulfuric acid, sodium hydroxide, nitric acid hydrogen fluoride unslaked lime, metallic mercury	Disintegration of contacted tis- sues; may be fuming, water reactive
Class 9		
Miscellaneous hazardous material	dry ice, molten sulfur adipic acid, PCBs	
ORM-A	dry ice	
ORM-B	metallic mercury	
ORM-C	oakum	
ORM-D	consumer quantities	
ORM-E	hazardous substances, wastes	

Source: Recognizing and Identifying Hazardous Materials, Participant Manual, 2nd ed, Federal Emergency Management Agency, U.S. Fire Administration, Nation Fire Academy, U.S. Government Printing Office, Washington, D.C., 1995.