HAZMAT CLASSES



CLASS	LABEL	DESCRIPTION
		1.1 – explosives with a mass explosion hazard (e.g. TNT, gunpowder,
1.1		gelignite)
1.2	EXPLOSIVE * *	1.2 – explosives which are a projectile or fragmentation hazard, but
1.3	1	not a significant mass explosion hazard (e.g. grenades, bombs, some
		forms of ammunition)
		1.3 – explosives which are a fire and minor blast hazard, with minor projectile or minor fragmentation hazards (e.g. sodium picramate,
		Pyrodex, display fireworks)
1.4	1.4 EXPLOSIVE	Explosives which are not a significant mass explosion hazard (e.g. flares, 'toy' fireworks, safety cartridges, propelling charges, fuses)
		(e.g. nares, toy meworks, sarety cartriages, propering charges, ruses)
1.5	1.5	Explosives with a mass explosion hazard, but which are very insensitive substances (e.g. diperchlorate)
1.6	1.6	Substances which are a minor explosion hazard, and which are very
	EXPLOSIVE	insensitive substances (e.g. some forms of very insensitive ammunition)
2.1		Flammable gases: gases that can ignite in air on contact with a source
	FLAMMABLE GAS	of ignition (e.g. acetylene, natural gas, LPG and many aerosols)
	FLAMMABLE	
	May also look like:	
2.2		Non-flammable, non-toxic gases: gases that are non-flammable but
	NON-FLAMMABLE NON-TOXIC	may cause asphyxiation and/or represent stored energy hazard
	2	(e.g. carbon dioxide, compressed air, helium and nitrogen).
	May also look like: 2	Some of these gases have additional danger as an oxidising agent (5.1)
2.3	/ <u>**</u> \	Toxic gases : gases likely to cause death or serious injury to human
	TOXIC	health if exposed, or by skin contact (e.g. chlorine, phosgene gas, hydrogen cyanide, anhydrous ammonia).
	2/	Some of these gases are also flammable (2.1), oxidising (5.1) or
		corrosive (8).
3	FLAMMABLE	Flammable liquids : liquids (and their vapours) that can burn on contact with a source of ignition (e.g. petrol, acetone, kerosene and
	LIQUID	paint thinners)
	FLAMMARLE	
	May also look like:	

continues over

HAZMAT CLASSES – cont.



4.1	FLAMMARLE	Flammable solids : solids easily ignited by sparks or flames, or liable to cause fire through friction (e.g. safety matches, sulphur, mothballs, camphor, firelighters)
4.2	SPONTAHEOUSLY COMBUSTIBLE	Spontaneously combustible : substances in this class are likely to heat spontaneously and ignite (e.g. activated carbon, white phosphorous, calcium dithionite). Some can ignite spontaneously when wet (4.3) or give off toxic gases (2.3) in a fire.
4.3	DANGEROUS WHEN WET 4 May also look like:	Dangerous when wet : these solids give off dangerous quantities of flammable or toxic gases when they make contact with water. The heat resulting from this reaction may cause these gases to spontaneously ignite (e.g. lithium, sodium, calcium carbide)
5.1	OXIDIZING AGENT 5.1	Oxidising substances: these substances can contribute to or accelerate the combustion of other combustible or flammable materials (e.g. ammonium nitrate, hydrogen peroxiode, nitric acid)
5.2	ORGANIC PEROXIDE 5.2	Organic peroxides: substances that can ignite spontaneously and possibly explode. These substances are temperature or impact/friction sensitive (e.g. methyl ethyl ketone peroxide, benzoyl peroxide) Some of these substances may contribute oxygen to a fire (5.1), and may be flammable (3 or 4) or combustible (4.2).
6.1	TOXIC 6	Toxic substances : substances that are likely to cause death or severe injury to human or animal health if swallowed, inhaled or with skin contact (e.g. cyanides, lead, calcium, arsenic and many pesticides). Nearly all of these give off toxic gas when heated or in a fire (2.3). Some are flammable (3) or corrosive (8).
6.2	INFECTIOUS SUBSTANCE 6	Infectious substances: substances containing pathogens, such as bacteria, viruses and parasites, which can cause life-threatening or fatal disease in human or animals (e.g. live vaccines, medical and clinical waste, anthrax spores)

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HAZMAT CLASSES – cont.

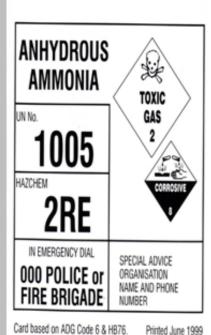


7	RADIOACTIVE 7 May also look like:	Radioactive materials: substances (solid or liquid) that spontaneously emit harmful levels of radiation (e.g. uranium, plutonium, radium, cobalt). May be catergory I, II or III, which refers to radiation level of transport package.
8	CORROSIVE 8	Corrosive substances : solids or liquids that will destroy or permanently damage another substance (especially living tissue) it comes in contact with. May be acidic or caustic in nature. Often the vapours that these substances give off are sufficient to irritate the nose and eyes (e.g. hydrochloric acid, sodium hydroxide, acetic acid).
9	MISCELLANEOUS DANGEROUS GOODS 9	Miscellaneous : substances which during transport present a danger not covered by other classes (e.g. dry ice, asbestos, some aerosols and elevated temperature liquids such as hot bitumen)
n/a	DANGEROUS	Mixed class : this label indicates the presence of more than one class or division of dangerous goods (used only in Australia).
n/a		Environmentally hazardous substances : these are liquids or solids, and solutions or mixtures of substances (such as preparations and wastes) that are pollutant to the aquatic environment (e.g. industrial waste).

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A TYPICAL EMERGENCY INFORMATION PANEL



THE HAZCHEM CODE

It is an initial emergency code, with up to three symbols, eg 2 R E, which indicate the firefighting and dispersion agents (1,2,3 and 4) the risks, personal protection and other measures (P,R,S,T,W,X,Y and Z), and whether or not to consider evacuation (E). Other terms:- V - risk of violent reaction or explosion.

FULL - minimum of a chemical splash suit, breathing apparatus and impervious gloves and boots. In some cases, a fully sealed gas suit will be required (see Dangerous Goods - Initial Emergency Response Guide - HB76).

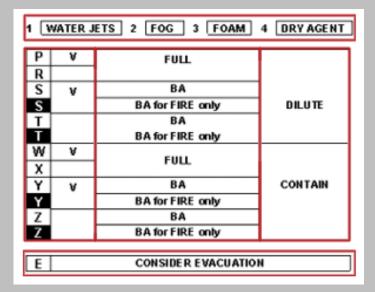
BA - breathing apparatus and impervious gloves. DILUTE - may be washed away with large quantities of water, and, wherever practicable.

should be contained and prevented from entering drains and watercourses.

CONTAIN - prevent any spillage from entering drains and watercourses.

INTERPRETATION OF 2RE

Water fog is the suggested agent. There is no risk of violent reaction. Full protection is required. Dilute. Consider evacuation. (Also, check HB76 for each material.)



HAZMAT GUIDELINES (fire)

- 1. Safe approach
- 2. Incident Command
- 3. Scene security
- 4. Identify HazMats
- 5. Assess potential harm and minimize environmental contamination
- 6. Call in resources
- 7. Monitor information
- 8. Render safe and decontaminate