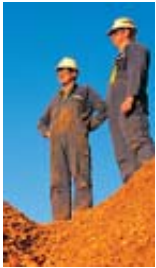




Department of **Consumer
and Employment Protection**

Resources Safety Division



Safety equipment for road vehicles – Dangerous goods safety guidance note T03/08

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Introduction

When placard loads of dangerous goods are transported by road, certain personal protective equipment (PPE) and other safety equipment are required by the Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Regulations 2007 and *Australian Dangerous Goods Code, Seventh Edition (ADG7)*. This is to ensure that, in the event of an accident or incident, the personnel transporting the dangerous goods have a reasonable degree of protection and, if practicable and safe to do so, can effectively respond to either control the situation or ameliorate the effects while waiting for the arrival of emergency services or the approved emergency responder.

This guidance note assists vehicle owners, prime contractors and drivers transporting dangerous goods on Western Australian roads to meet their obligations regarding the provision of safety equipment.

Minimum requirements

Table 1 details the PPE and other safety equipment that should be included on vehicles transporting placard loads of dangerous goods.

Double-sided reflector signals, complying with Australian Standard AS 3760:1992 *Portable warning triangles for motor vehicles*, are mandatory on all vehicles carrying placard loads.

Other items may be required depending on the load. For example, appropriate electric torches complying with Australian Standard *AS/NZS 60079.11:2006 Explosive atmospheres – Equipment protection by intrinsic safety* are required for some dangerous goods.

All safety equipment must be stowed in an accessible position in the vehicle except for respiratory protective equipment, which must be carried securely and in an accessible position in the vehicle cabin.

Respiratory protective equipment

The recommendations for self-contained breathing apparatus (SCBA) are flexible enough to ensure that:

- full protective equipment is provided at product transfer points where it can be used by trained operators; and
- simple escape apparatus (e.g. SCBA, re-breathing apparatus) is provided to enable drivers to take emergency escape action in the event of a leak.

Fire extinguishers

Fire extinguishers are mandatory on all vehicles carrying placard loads of dangerous goods. As listed in Table 2, the number, type and size of extinguishers required vary with the nature of the load.

Each fire extinguisher must be:

- located so as to be readily accessible for use; and
- on road tank vehicles, located and stowed in accordance with Australian Standard *AS 2809.1:2008 Road tank vehicles for dangerous goods – General requirements for all road tank vehicles*;

Where two or more fire extinguishers are required for the load area of any vehicle, one should be located on the left (near) side towards the rear of the vehicle and, wherever practicable, another should be mounted on the right (off) side towards the front of the vehicle.

Where only one fire extinguisher is required for any vehicle, it should be located, wherever practicable:

- on the discharge side of a road tank vehicle; or
- near the driver's door for all other vehicles.

Fire extinguishers should be maintained in accordance with Australian Standard *AS 1851:2005 Maintenance of fire protection systems and equipment*. The standard nominates regular inspections at six monthly, yearly and five yearly intervals.

Other equipment

Although not specified in the regulations or ADG7, a shovel or spade is recommended where it may be useful for clean-up or emergency bunding of a spill. For flammable dangerous goods, the potential for spark generation must be considered when choosing an appropriate tool.

Further information

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Table 1 Minimum requirements for safety equipment for road vehicles transporting placard load of dangerous goods

Class, Division or Subsidiary Risk	Three double-sided reflector signals complying with AS 3790	Eyewash kit filled and ready for use (250 ml minimum)	Respiratory protective equipment for escape purposes	Gas tight goggles or full face shield as appropriate	Chemically resistant gloves or gauntlets	Thermally insulated gloves or gauntlets	Chemically resistant suit or coveralls	Chemically resistant boots	Any electric torch	Electric torch complying with AS/NZS 60079.11
2.1*	Yes	No	No	Yes, if cryogenic liquid or in receptacles with capacity >500 L	No	Yes	No	No	No	Yes
2.2	Yes	No	No	Yes, if cryogenic liquid or in receptacles with capacity >500 L	No	Yes	No	No	Yes	No
2.3	Yes	Yes	**	Yes	No	Yes	No	No	Yes	No
3	Yes	Yes	No	No	Yes	No	No	No	No	Yes
4	Yes	Yes	No	No	Yes	No	No	No	No	Yes
5.1 solids	Yes	Yes	No	No	Yes	No	No	No	Yes	No
5.1 liquids	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
5.2	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
6.1	Yes	Yes	**	Yes	Yes	No	Yes	Yes	Yes	No
8	Yes	Yes	**	Yes	Yes	No	Yes	Yes	Yes	No
9	Yes	Yes	No	No	Yes	Yes***	No	No	Yes	No

Notes:

* A gas detector suitable for the detection of LP gas must be carried on a vehicle transporting unodourised LP gas

** The minimum requirement is air-supplied short-term breathing apparatus suitable for escape purposes, except when, even in an emergency, the dangerous goods will not give rise to harmful vapours, gases or dust. When a driver attends to the loading or transfer of goods, SCBA with a duration of longer than 15 minutes may be required by other legislation (e.g. occupational safety and health)

*** Yes if the goods are elevated temperature substances or dry ice

Table 2 Fire extinguisher requirements for road vehicles transporting placard load of dangerous goods

Dangerous goods being transported		Fire extinguisher requirements	
		Minimum number and rating, and type	Location on vehicle
1	All vehicles where the only dangerous goods are: (a) articles or in packages (including those contained in large packagings, overpacks or segregation devices) (b) in IBCs, except where 3(c) below applies	One x 30B dry powder	Near driver's door
2	Vehicles transporting dangerous goods in placardable units (other than IBCs), tanks or bulk containers, except where 3 below applies	<i>Either</i> one 60B dry powder <i>or</i> two 30B dry powder	Load area
		One 10B dry powder	Cabin
3	Vehicles transporting flammable goods in: (a) tanks (b) bulk containers (c) placardable units with a total capacity greater than 10,000 kg or L	<i>Either</i> two 60B dry powder <i>or</i> one 80B dry powder and one 20B foam	Load area
		One 10B dry powder	Cabin

Notes

- *On a combination vehicle, each separate unit on which a placard load of dangerous goods is transported must be equipped with fire extinguishers in accordance with this table.*
- *Flammable goods refer to dangerous goods of Division 2.1, Class 3 or Class 4 or with a sub-risk of 2.1, 3 or 4.*