

Hazardous Substance Transport & Flammable Storage

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Transportation of Dangerous Goods (Legal Reference)

Dangerous Goods as defined by the National Road Traffic Act (93 of 1996)

"dangerous goods" means the commodities, substances and goods listed in the standard specification of the South African Bureau of Standards SABS 0228 "The identification and classification of dangerous substances and goods";



SANS 10228: Identifies and classifies each of the listed dangerous goods and substances and set out information including the United Nations Number, the correct shipping name, hazard class assigned and other information pertinent to the substance.

Transportation of Dangerous Goods (Parties)

Consignor



Operator



Consignee

Distributor, a person offering dangerous goods in excess of the exempt quantity for transport in a vehicle

Transporter of the goods, a person registered to do so and the operator of the vehicle

Receiver, the person or organization receiving the good

Transportation of Dangerous Goods (Vehicles)



* Both types of loads have an exempt quantity of 1000 units

$$A = Q \times F$$

A is the result (number of units)

Q is the quantity (as loaded)

F is the factor of column 7 of table C1.

If the vehicle has the capacity of above the exempt quantity, it must be registered for dangerous goods through the Department of Transport

Transportation of Dangerous Goods (Vehicles)

Registration of the vehicle is subject to Municipal By-Laws, but generally these will be required;

- The Certification of Roadworthiness of the vehicle
- Motor Vehicle License
- License Disc
- Operator Card

Additional requirement to actually do the transport are;

That the vehicle must be marked with the appropriate signage and placards with the required emergency numbers*

That the driver of such a vehicle has a valid Professional Driver's License (PDP) and is qualified and certified as a dangerous goods vehicle driver.

Transportation of Dangerous Goods (Placards)

SANS 10232 requires all vehicles transporting dangerous good need to be fitted with 3 placards on the cargo containment area and a danger warning diamond on the front, as well as additional markers depending on the nature of the risks involved



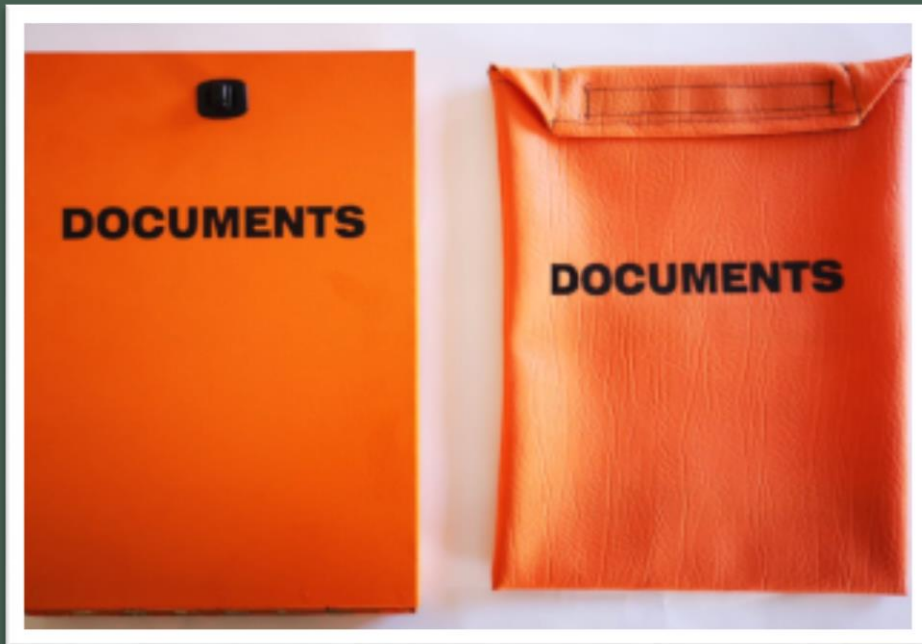
Transportation of Dangerous Goods (Driver)

Operators must ensure that drivers receive annual training, by an approved dangerous goods training body. This applies to both light and heavy goods vehicle drivers and training must be relevant to the type of vehicle and dangerous goods the driver is assigned.

To qualify for a “D” category PrDP the applicant must;

- Produce a certificate issued by an approved training body within the previous six months
- Be at least 25 years of age and have no record of any conviction of any crime involving violence in the past five years
- Produce a valid medical certificate
- Be fingerprinted and pass a police clearance check

Transportation of Dangerous Goods (Designated Space)



A space within the cab of the vehicle, orange in color with the words “DOCUMENTS” in bold must contain;

- TREMCARD
- Dangerous Goods Declaration
- Route and Delivery Instructions
- Container packing certificate (SANS 10231) and Nominally empty packing certificate (SANS 10406) if either are applicable

Transportation of Dangerous Goods (Route Plan)

Though there is not any direct requirements for planning the route the vehicle must take, it is the responsibility of the operator to take into account the hazards associated with the load and carefully plan the path the driver must take

Special Considerations may be;

- Schools and Hospitals
- Centers of high population
- Agricultural Areas
- Major Roads / Highways / Intersections

Factors to take into account;

- Size and weight of the vehicle
- Alternative Routes
- Accidental Release Controls
- Fire and Response to Accidents

Any incidents, including the transfer of cargo for any reason other than delivery, must be treated as an emergency and the relevant governing entities must be summoned along with other service providers (eg. Spilltech)

Transportation of Dangerous Goods (Risk Assessments)

An assessment of the hazards and risks associated with the storage and transport of these substances must be made. Relevant sources of information include;

SDS (Formally MSDS) - Safety Data Sheet

TREM/TREC Card

Baseline Risk Assessment by a Competent Person

Local Fire Dept.

Manufacturer of the Substance

It is worth noting that every situation, site and vehicle is different, and a job-specific assessment can be made with accompanying checklists to ensure compliance with company policy

It is recommended these documents be kept for least 3 years



Transportation of Dangerous Goods (Spillage Incidents)

An incident is an unexpected and unplanned interruption in the actions of a business that poses a tangible risk to health, safety and the environment.

Emergency Preparedness Plan

Spill Containment

Emergency Contacts and Containment

Potential Fire Hazards

Barricading and Demarcating

Personal Protective Equipment

In accordance with SANS 10231, all incidents involving Dangerous Goods vehicles must be reported to the National Department of Transport within 30 days, compiling an incident report in accordance with Annexure D of SANS 10231.

Flammable Storage

A flammable good is an item that, under the correct circumstances of a negative reaction can cause a fire or explosion that may result in death, damage and contamination.

As a result of its possible impact, Certificates of Compliance need to be applied for and maintained.

It is the duty of the Employer under General Safety Regulation 4 (OHSA) to create and maintain such a space in the interest of Health and Safety.

Other legal sections and local bylaws make summarizing these requirements difficult, but there are some common requirements.

Flammable Storage (Common Requirements)

Regardless of municipal by-laws, compliance of such spaces and the CoC's attached is handled and regulated by the local fire brigade and issued by the then appointed Fire Chief.

The construction of such spaces also need to be approved by a municipal engineer, who will require the plan be approved by them, as well as stopping points in phases of the construction for their approval.

The materials used for construction must be fire resistant and be able to sustain its structure through two hours of continuous burning at least. Door must open outwards and ventilation is required if fume buildup is even a light risk.

Flammable Storage (Common Requirements)

All flammable liquids must be stored separately and be adequately labeled to ensure no confusion in their handling. A full file of 16-point SDS's must be available close to the store in order to ensure any persons who might need it, has access to it.

Access to the store must be controlled, along with procedures for appropriate staff in general housekeeping of waste materials and prevention of work that might cause sparks or ignition of any kind.

Appropriate signage needs to be in order to easily identify the space as well precautionary measures such as the nearest fire fighting equipment and first aid boxes that may be used, along with eye wash stations and deluge showers where necessary.

Flammable Storage (Documentation)

Outside of the requirements posed by municipal by-laws, good practice will require safety documentation to be created and maintained by personnel qualified to do so and for a period of at least 3 years unless otherwise stipulated by law;

Risk Assessments

Relevant Appointments

Incident Reports

Awareness Programs

Inspection Checklists

Emergency Drills

Evacuation Procedures

Training Records

Emergency Response

Maintenance Records

Flammable Storage (Penalization)

Endangering the people and environment around your operations might lead to penalties and orders being placed upon your business. These can range from fines that might repeat for each day being non-compliant, to instance-based fines, to stop orders on operations and even potential court summons and sentencing in extreme situations of hazardous exposure.

Mostly non-compliance is seen as negligence on the part of the business owner, regardless of their knowledge on the matter as it is their responsibility to ensure their operations pose no harm. Thus they must seek out this information if it is lacking.



Flammable Storage (Training)

The training of work staff is important to ensure continuous reporting and rigorous compliance with company policy. An informed worker is a safe worker.

Some training you might want to consider;

Incident Investigation

First Aid and Fire Fighting

Stacking and Storage

Safety Representative

Risk Assessment

Hazardous Chemical Handling

Working at Heights

Machine Licenses



Flammable Storage (Audits and Compliance)

To comply with auditors requirements is paramount with compliance.

Internal checks on previously failed criteria or weak points a business is aware of helps keep a internal consistency and creates a culture of following the rules.

It's worth remembering that anyone looking for compliance is an observer with learnt knowledge, not a fellow business owner. You either have something in place, or you don't, there's no room for explanations.

Auditors work in such a capacity that paperwork and visible signs of safety count for a lot. "I need to see you are compliant before I've even opened a file."

Thank you for your time and your
patience

A special thank you to;



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