



HAZCHEM SOLUTIONS

CONVEY DANGEROUS GOODS BY ROAD



PART ONE



INTRODUCTION TO DANGEROUS GOODS

WHAT ARE 'DANGEROUS GOODS'?

GOODS POSING A SIGNIFICANT RISK TO:



HEALTH



SAFETY



PROPERTY



ENVIRONMENT

DURING TRANSPORT

OTHER NAMES FOR DANGEROUS GOODS

HAZARDOUS CHEMICAL SUBSTANCES

HAZARDOUS SUBSTANCES

HAZARDOUS MATERIALS

HAZCHEM

HAZMAT

HOW ARE THEY IDENTIFIED ?

BY A **DIAMOND-SHAPED** LABEL ON
AN ITEM
A CONTAINER
A BUILDING



**DUE TO THE RISK TO
HEALTH,
SAFETY, PROPERTY &
ENVIRONMENT,
DANGEROUS GOODS
MUST BE
REGULATED**

**DANGEROUS GOODS
ARE REGULATED BY :**

**THE NATIONAL
ROAD TRAFFIC
ACT(NRTA)
OTHER ACTS
NATIONAL
STANDARDS
AND MUNICIPAL**

THE NATIONAL ROAD TRAFFIC ACT

SECTION 54

No person must, **except as prescribed,**
offer for transportation in a vehicle, or
transport in a vehicle, or **accept** after
transportation in, on or by a vehicle,
any prescribed Dangerous Goods.

WHO MUST IDENTIFY DANGEROUS GOODS?

THE CONSIGNOR
(THE PERSON WHO OFFERS
DANGEROUS GOODS FOR
TRANSPORT IN A VEHICLE)

HOW ARE THEY IDENTIFIED?

SANS 10228: 2012

**THIS STANDARD COVERS THE
IDENTIFICATION AND
CLASSIFICATION OF
DANGEROUS GOODS FOR
TRANSPORT BY ROAD OR
RAIL MODES**

DANGEROUS GOODS ARE CLASSIFIED BY:

UN NUMBER

PROPER SHIPPING NAME

HAZARD CLASS/CLASSES

SUBSIDIARY RISK CLASS

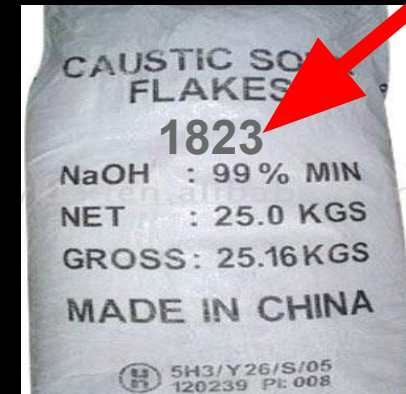
PACKING GROUP

WHAT IS A UN NUMBER?

SERIAL NUMBER CONSISTING OF **4 DIGITS** THAT IS **ASSIGNED** TO **DANGEROUS GOODS** BY THE UNITED NATIONS COMMITTEE OF EXPERTS (**UNECE**) ON THE TRANSPORT OF DANGEROUS GOODS

RANGE FROM **0001** TO **3506**
SINGLE SUBSTANCES HAVE THEIR OWN NUMBER
GROUPS OF CHEMICALS HAVE A COMMON NUMBER

A **CHEMICAL** IN ITS **SOLID-STATE** MAY RECEIVE A **DIFFERENT UN NUMBER** THAN THE LIQUID PHASE IF THEIR **HAZARDOUS PROPERTIES DIFFER**.



PROPER SHIPPING NAME

DESCRIPTION USED FOR DANGEROUS GOODS IN TRANSPORT DOCUMENTATION IN THE MARKING OF PACKAGES AND IN THE PLACARDING OF CONTAINERS AND VEHICLES TO ENSURE THAT GOODS CAN BE READILY IDENTIFIED DURING TRANSPORT.

ENAMEL PAINT?



SHIPPING NAME?

“PAINT, FLAMMABLE”

HAZARD CLASS

DANGEROUS GOODS ARE CLASSIFIED(PLACED IN A CLASS/DIVISION) ACCORDING TO THEIR PRIMARY DANGER OR RISK AND ARE ASSIGNED STANDARDISED WARNING SYMBOLS/LABELS TO IDENTIFY THE RELEVANT CLASS.

OXYGEN



WHAT IS THE PRIMARY HAZARD?
“High Pressure / Cold”

SUBSIDIARY CLASS

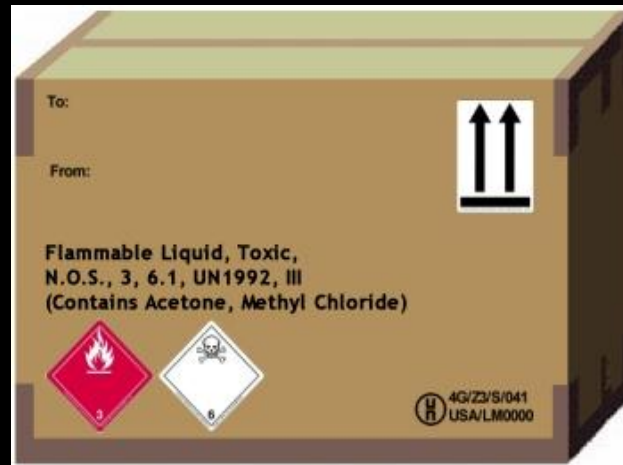
A CLASS ASSIGNED TO A SUBSTANCE WITH MORE THAN ONE DANGER/RISK, WHERE THE SECONDARY (SUBSIDIARY) DANGER/S IS/ARE SIGNIFICANT ENOUGH TO WARRANT FURTHER RECOGNITION OF THE ADDITIONAL HAZARD/S

EXAMPLES



**SUBSIDIARY
RISK?**

OXIDIZER



**ACETONE, METHYL
CHLORIDE**



**CHLORINE GAS
PLACARD WITH
S/RISK**



HYDRAZINE HYDRATE

PACKING GROUP (PG)

GROUP SYMBOL THAT INDICATES THE DEGREE OF DANGER/HAZARD OF THE PRIMARY PROPERTY OF A SPECIFIC SUBSTANCE

PG I - EXTREME DANGER

PG II - MEDIUM DANGER

PG III - MINOR/MILD

EXAMPLES



I

II

III

METHANOL

PETROL

DIESEL

METHANOL IS MOST FLAMMABLE

**DIESEL IS LEAST
FLAMMABLE**



I

II

III

HYDROCHLORIC ACID

>80%

>50%

>20%

WHICH IS MOST CORROSIVE?

WHICH IS LEAST CORROSIVE?

CLASS	CLASS NAME	PG
1	EXPLOSIVES	n/a
2.1	FLAMMABLE GASES	n/a
2.2	COMPRESSED GASES	n/a
2.3	TOXIC GASES	n/a
3	FLAMMABLE LIQUIDS	I – II – III
4.1	FLAMMABLE SOLIDS	I – II – III
4.2	SPONTANEOUSLY COMBUSTIBLE	I – II – III
4.3	DANGEROUS WHEN WET	I – II – III
5.1	OXIDIZERS	I – II – III
5.2	ORGANIC PEROXIDES	I or II
6.1	TOXIC	I – II – III
6.2	INFECTIOUS	n/a
7	RADIOACTIVE	OPPOSITE
8	CORROSIVE	I – II – III
9	MISCELLANEOUS	I – II – III

IF WE LOOK AT THE TABLE, WE CAN SEE THAT:

WHERE A SUBSTANCE HAS **NOT APPLICABLE (N/A)** THEN THAT CLASS IS TREATED AS **PG I- EXTREME DANGER**, FOR PURPOSES OF TRANSPORT, STORAGE, PACKAGING, LABELLING & HANDLING.

RADIOACTIVES ARE LABELLED ACCORDING TO **EMISSION LEVELS**, WHERE THE LEVELS **WORK THE OPPOSITE OF PACKING GROUPS**.



EMISSION LEVEL

I
LOW



II
MEDIUM



III
HIGH





PART TWO



THE 9 HAZARD CLASSES



CLASS 1: EXPLOSIVES

MATERIALS OR ITEMS WHICH HAVE THE ABILITY TO **DETONATE** AS
A CONSEQUENCE OF **CHEMICAL REACTION**

REASON FOR REGULATION

EXPLOSIVES ARE **CAPABLE BY CHEMICAL REACTION** OF
PRODUCING GASES AT TEMPERATURES, PRESSURES AND
SPEEDS AS TO CAUSE **CATASTROPHIC DAMAGE** THROUGH
FORCE AND/OR OF PRODUCING OTHERWISE HAZARDOUS
AMOUNTS OF **HEAT, LIGHT, SOUND, GAS OR SMOKE.**



ROCKETS



FIREWORKS



FLARES

CLASS 2: GASES

SUBSTANCES WHICH HAVE A **VAPOUR PRESSURE** OF 300 KPA OR GREATER AT 50 DEGREES OR WHICH ARE **COMPLETELY GASEOUS** AT 20 DEGREES AT STANDARD ATMOSPHERIC PRESSURE AND ITEMS CONTAINING THESE SUBSTANCES.

REASON FOR REGULATION

GASES ARE CAPABLE OF POSING SERIOUS HAZARDS DUE TO THEIR FLAMMABILITY, POTENTIAL ASPHYXIANTS, ABILITY TO OXIDIZE AND THEIR TOXICITY TO HUMANS





CLASS 3: FLAMMABLE LIQUIDS

LIQUIDS, MIXTURES OF LIQUIDS CONTAINING
SOLIDS IN SOLUTION WHICH GIVE OFF
FLAMMABLE VAPOUR AT TEMPERATURES
OF NOT MORE THAN 60-65 DEGREES

REASON FOR REGULATION

FLAMMABLE LIQUIDS ARE CAPABLE OF POSING
SERIOUS HAZARDS DUE TO THEIR VOLATILITY,
COMBUSTIBILITY & POTENTIAL IN CAUSING/
PROPAGATING SEVERE CONFLAGRATIONS



CLASS 4: FLAMMABLE SOLIDS

MATERIALS WHICH UNDER CONDITIONS ENCOUNTERED IN TRANSPORT ARE READILY COMBUSTIBLE/CAUSE/ CONTRIBUTE TO FIRE THROUGH FRICTION,SELF-REACTIVE SUBSTANCES LIABLE TO UNDERGO STRONGLY EXOTHERMIC REACTION. SUBSTANCES LIABLE TO SPONTANEOUS HEATING/ HEATING UP IN CONTACT WITH AIR/SUBSTANCES BECOME SPONTANEOUSLY FLAMMABLE WHEN IN CONTACT WITH WATER.

REASON FOR REGULATION

FLAMMABLE SOLIDS ARE CAPABLE OF POSING SERIOUS HAZARDS DUE TO THEIR VOLATILITY,COMBUSTIBILITY & POTENTIAL IN CAUSING SERIOUS CONFLAGRATIONS



CLASS 5: OXIDIZING SUBSTANCES AND ORGANIC PEROXIDES



SUBSTANCES WHICH MAY CAUSE/
CONTRIBUTE TO COMBUSTION,
GENERALLY BY YIELDING OXYGEN
AS A RESULT OF A REDOX CHEMICAL
REACTION



SUBSTANCES WHICH MAY BE
CONSIDERED DERIVATIVES OF
HYDROGEN PEROXIDE WHERE
ONE/BOTH HYDROGEN ATOMS OF
CHEMICAL STRUCTURE HAVE BEEN
REPLACED BY ORGANIC RADICALS



REASON FOR REGULATION

OXIDIZERS-CAN YIELD OXYGEN AND CAUSE/ CONTRIBUTE TO COMBUSTION OF OTHER MATERIALS.
ORGANIC PEROXIDES- THERMALLY UNSTABLE,MAY EXUDE HEAT WHILST UNDERGOING EXOTHERMIC
AUTOCATALYTIC DECOMPOSITION/MAY BE LIABLE TO EXPLOSIVE DECOMPOSITION /CAUSE DAMAGE
TO EYES

CLASS 6: TOXIC SUBSTANCES & INFECTIOUS DISEASES



SUBSTANCES LIABLE EITHER TO CAUSE DEATH/SERIOUS INJURY OR TO HARM HUMAN HEALTH IF SWALLOWED, INHALED/ BY SKIN CONTACT.



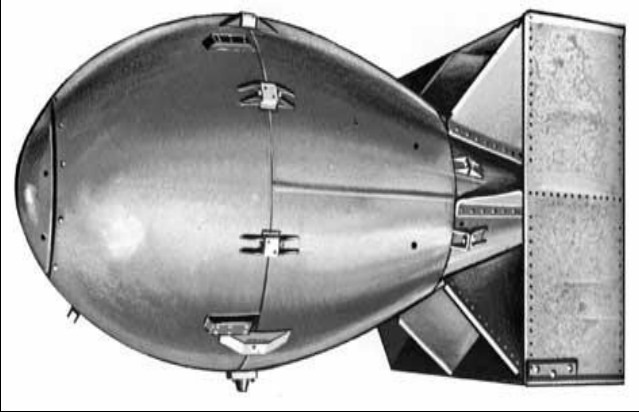
SUBSTANCES KNOWN /CANBE REASONABLY EXPECTED TO CONTAIN PATHOGENS(BACTERIA,VIRUSES,FUNG I OR OTHER AGENTS CAUSING DISEASE IN HUMANS/ANIMALS



REASON FOR REGULATION

CAN POSE SIGNIFICANT RISKS TO HUMAN & ANIMAL HEALTH UPON CONTACT.

CLASS 7: RADIOACTIVE SUBSTANCES



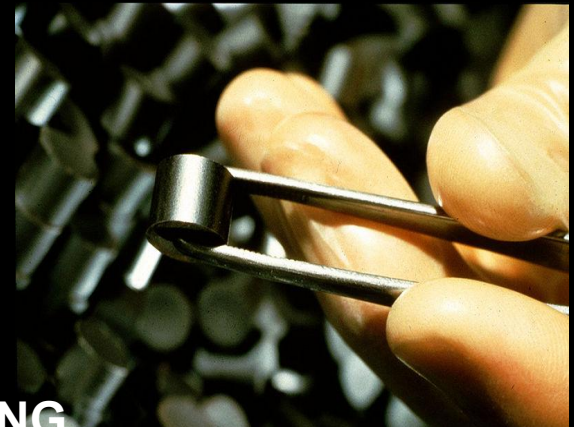
RADIONUCLIDE??

ATOM WITH UNSTABLE NUCLEUS, SUBJECT TO RADIOACTIVE DECAY

ANY MATERIAL CONTAINING RADIONUCLIDES WHERE BOTH **ACTIVITY CONCENTRATION & TOTAL ACTIVITY EXCEEDS** CERTAIN PREDEFINED VALUES

REASON FOR REGULATION

WHISLT UNDERGOING RADIOACTIVE DECAY, RADIO-NUCLIDES EMIT IONIZING RADIATION WHICH PRESENTS POTENTIALLY SEVERE RISKS TO HUMAN HEALTH





CLASS 8: CORROSIVES

**SUBSTANCES WHICH BY CHEMICAL ACTION DEGRADE/
DISINTEGRATE OTHER MATERIALS UPON CONTACT**

REASON FOR REGULATION

**CAUSE SEVERE DAMAGE WHEN IN CONTACT WITH
LIVING TISSUE/IN THE CASE OF LEAKAGE CAN
DAMAGE/DESTROY SURROUNDING MATERIALS.**



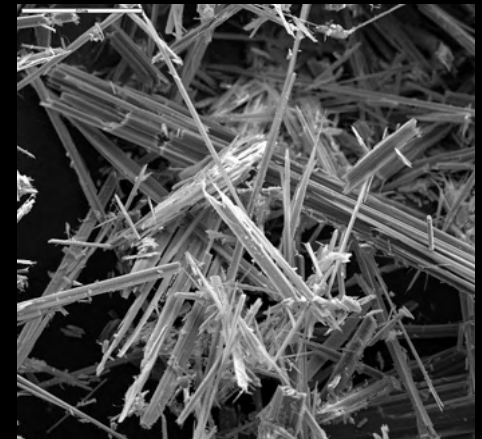


CLASS 9: MISCELLANEOUS

**SUBSTANCES/ ARTICLES WHICH DURING TRANSPORT
PRESENT DANGER/HAZARD NOT COVERED BY OTHER
CLASSES. ENVIRONMENTALLY HAZARDOUS
SUBSTANCES, SUBSTANCES THAT ARE TRANSPORTED AT
ELEVATED TEMPERATURES, MISCELLANEOUS
SUBSTANCES, GENETICALLY MODIFIED ORGANISMS &
MAGNETIZED MATERIALS & AVIATION REGULATED
SUBSTANCES**

REASON FOR REGULATION

**PRESENT WIDE ARRAY OF POTENTIAL HAZARDS TO HUMAN
HEALTH AND SAFETY, INFRASTRUCTURE OR THEIR MEANS
OF TRANSPORT.**





PART THREE



PACKAGING REQUIREMENTS FOR DANGEROUS GOODS

OCCUPATIONAL HEALTH & SAFETY ACT-85 OF 1993

DANGEROUS GOODS ARE USUALLY **MANUFACTURED, PACKAGED, HANDLED & STORED** IN A **REGISTERED WORKPLACE** IN SOUTH AFRICA.

EMPLOYEES ARE **PROTECTED** BY VARIOUS SECTIONS AND REGULATIONS & IT IS A **CRIMINAL OFFENCE** WHEN **EMPLOYERS FAIL TO APPLY** THE REQUIREMENTS OF THIS ACT.

DUTIES OF THE EMPLOYER:

**PROVIDE SAFE WORKPLACES FOR ALL
EMPLOYEES, VISITORS/PERSONS WHO
MAY BE NEGATIVELY AFFECTED BY
ACTIVITIES OF THAT WORKPLACE.**

**INFORM EMPLOYEES OF HAZARDS/RISKS
ASSOCIATED WITH THE WORK THEY
ARE EXPECTED TO PERFORM ON
BEHALF OF THAT EMPLOYER.**



labour

Department:
Labour
REPUBLIC OF SOUTH AFRICA

CONSEQUENCES OF NOT MANAGING DANGEROUS GOODS EFFECTIVELY IN WORKPLACES



the doj & cd

Department:
Justice and Constitutional Development
REPUBLIC OF SOUTH AFRICA

**CRIMINAL & CIVIL LIABILITY
POSSIBILITY OF INSURANCE CLAIMS FOR LOSS/DAMAGE
SUFFERED FROM INCIDENTS(FIRES) NOT BEING PAID OUT.
INJURIES/LOSS OF MAN HOURS
LOSS OF PRODUCTIVITY
LOSS OF LIFE
BAD PUBLICITY (NEWS)**



**FINE/ IMPRISONMENT FOR PERIOD NOT EXCEEDING 6 MONTHS.IN THE
CASE OF CONTINUOUS OFFENCE AN ADDITIONAL R200 FINE FOR
EACH DAY THE OFFENCE CONTINUES/ADDITIONAL IMPRISONMENT OF
ONE DAY FOR EACH DAY ON WHICH THE OFFENCE CONTINUES**

REGULATION 14-HAZARDOUS CHEMICAL SUBSTANCES (OHS ACT)

IN ORDER TO PREVENT THE **SPREAD OF CONTAMINATION** THE EMPLOYER MUST ENSURE
THAT:

THE HCS IN STORAGE /DISTRIBUTED ARE **PROPERLY
IDENTIFIED**, CLASSIFIED AND HANDLED IN ACCORDANCE WITH **SANS
10228: 2012**

A CONTAINER/ VEHICLE IN WHICH HCS IS TRANSPORTED IS CLEARLY
IDENTIFIED, CLASSIFIED & PACKED IN **UN-APPROVED PACKAGING**.

ANY CONTAINER (INTO WHICH HCS IS DECANTED) IS **CLEARLY
LABELLED** WITH REGARD TO THE CONTENT THEREOF.





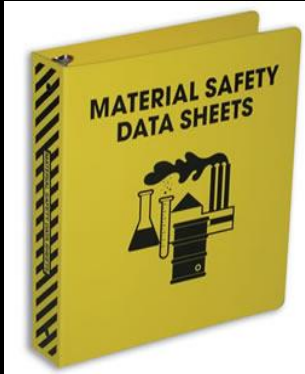
PART FOUR



REGULATION OF DANGEROUS GOODS WHEN CONVEYED ON PUBLIC ROADS

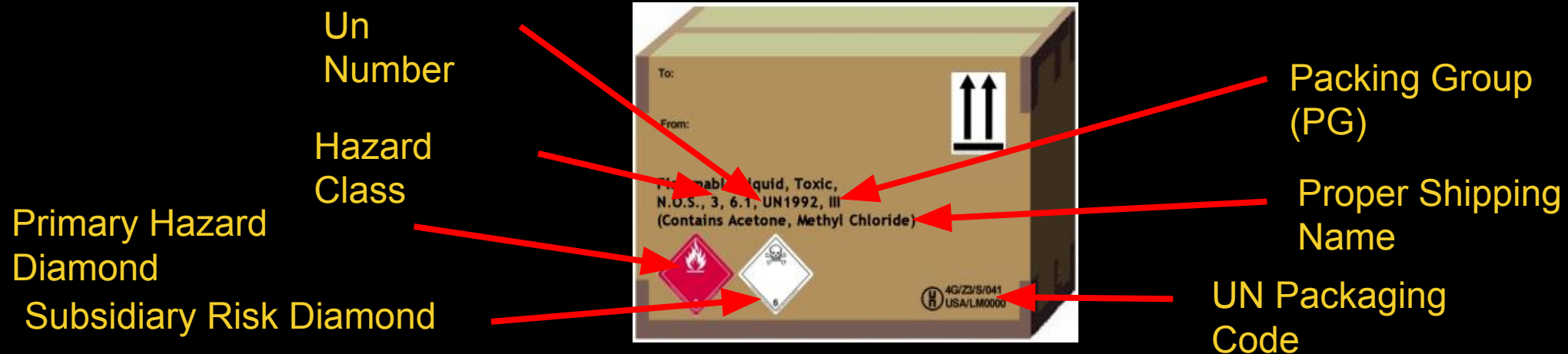
STEPS REQUIRED TO IDENTIFY AND CLASSIFY LOADS CORRECTLY?

BEFORE LOADING ANY GOODS, WE SHOULD ASK: "ARE THE GOODS 'DANGEROUS' OR NOT? **MAKE 100% SURE!!!**



STEP 1 (ALL LOADS)

DO THE GOODS HAVE A :UN NUMBER, PROPER SHIPPING NAME, HAZARD CLASS, SUBSIDIARY RISK CLASS OR PACKING GROUP (IF APPLICABLE) UN INFORMATION CAN BE FOUND ON LABELS ON PACKAGES, MSDS-SECTION 14, PREVIOUS TRANSPORT DOCUMENTATION (DELIVERY NOTES), BY SEARCHING THE INTERNET OR CONTACTING SUPPLIER/MANUFACTURER.



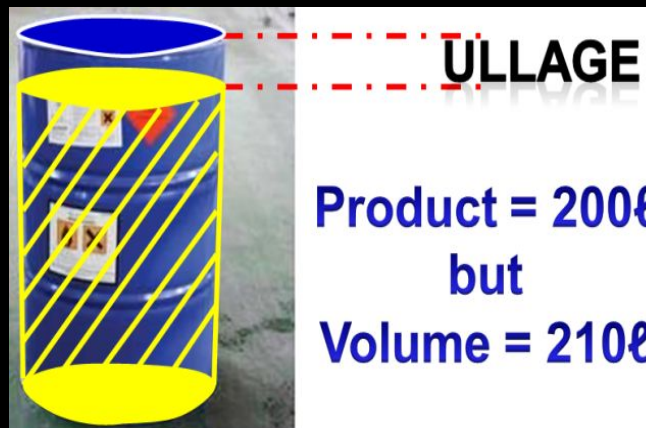
STEPS REQUIRED TO IDENTIFY AND CLASSIFY LOADS CORRECTLY?

STEP 2(SINGLE LOADS) ONLY ONE UN NUMBER IS IDENTIFIED

ESTABLISH THE QUANTITY OF DANGEROUS GOODS THAT MUST BE LOADED

QUANTITY IS MEASURED IN LITRES (LIQUIDS) AND KILOGRAMS(SOLIDS)

WHEN ESTABLISHING LITRES THE RULE IS TO ESTABLISH THE VOLUME OF A CONTAINER NOT THE ACTUAL QUANTITY OF LIQUID IN THAT CONTAINER. THIS IS BECAUSE LIQUIDS EVAPORATE & EMIT FURTHER FUMES, VAPOUR, GAS INTO SPACE ABOVE LEVEL OF LIQUID AND FORM PART OF HAZARD. THIS SPACE IS CALLED ULLAGE.



NOTIONALLY EMPTY

THE FULL 'WATER CAPACITY' (LITRES) OF CONTAINERS ,DRUMS,TANKS & CYLINDERS SHOULD BE APPLIED TO THE MEASUREMENT OF "VOLUME" TAKE NOTE OF THE FACT THAT EVEN SEEMINGLY EMPTY CONTAINERS ARE ACTUALLY NOTIONALLY EMPTY (TREAT NOTIONALLY EMPTY CONTAINERS AS IF THEY WERE FULL) APPLY THE VOLUME RULE

NOTIONALLY EMPTY CONTAINERS ARE IN MANY INSTANCES **MORE LIKELY TO EXPLODE** IN FIRE SITUATION SINCE THEY **DON'T HAVE LIQUID** WITHIN TO **ABSORB HEAT AWAY** FROM THE SURFACE OF THE CONTAINER. THE SURFACE WILL **OVERHEAT QUICKLY, WEAKEN & RUPTURE** RELEASING VAPOUR UNDER GREAT PRESSURE FROM WITHIN TO OUTSIDE AIR, MIXING WITH OXYGEN AND DETONATING IN AN **'UNCONFINED VAPOUR CLOUD EXPLOSION.**

ALWAYS TREAT EMPTY CHEMICAL CONTAINERS WITH THE SAME CAUTION AS IS USUALLY AFFORDED TO FULL CONTAINERS

STEPS REQUIRED TO IDENTIFY AND CLASSIFY LOADS CORRECTLY?

STEP 3 SINGLE LOAD

REFER TO LOAD CONSTRAINTS, IN PARTICULAR TABLE C.1 (EXEMPT QUANTITY LIST) FOUND IN SANS 10231:2014



1	2	3	4	5	6	7	8	9	10	11
UN No.	Proper shipping name	Class	Pack- ing group	Subs. risk	Ex- empt quan- tities	F	P, B, L and O provisions			
							P	B	L	O


EXEMPT QUANTITY- SULPHURIC ACID

IF VOLUME OF CONTAINERS DON'T
EXCEED 50 LITRES-THE LOAD IS
NOT REGULATED- NORMAL
GOODS



IF NET VOLUME EXCEEDS 50 LITRES –LOAD IS
REGULATED AS DANGEROUS GOODS-
REGULATIONS,BY-LAWS NATIONAL STANDARDS
APPLY



1	2	3	4	5	6	7	8	9	10	11
UN No.	Proper shipping name	Class	Pack- ing group	Subs. risk	Ex- empt quan- ties	F	P, B, L and O provisions			
							P	B	L	O
1830	SULFURIC ACID with >51% acid	8	II		50	20				

STEPS REQUIRED TO IDENTIFY AND CLASSIFY LOADS CORRECTLY?

STEP 3 MIXED LOAD CHECKING COMPATIBILITY OF DIFFERENT CLASSES

ESTABLISH WHETHER UN NUMBERS ARE FROM THE SAME CLASS OR FROM DIFFERENT CLASSES AND SEE WHETHER THEY ARE COMPATIBLE OR NOT

SAME CLASS



COMPATIBLE

DIFFERENT CLASSES



CHECK WHETHER COMPATIBLE

COMPATIBILITY CHART

TABLE G.1 PAGE 33 IN SANS 10231

CLASSES CAN BE FOUND ON THE LEFT (1-9) AND THE TOP (1-9)

THE GENERAL SEGREGATION SPACE BETWEEN COMPATIBLE GOODS IS 100mm

YOU NEED TO COMPARE THE PRIMARY CLASS AND THE SUBSIDIARY RISK CLASS AGAINST EACH OTHER ON THE COMPATIBILITY CHART

BOTH CLASSES AND SUBSIDIARY RISK CLASSES MUST BE COMPATIBLE

QUANTITY IS MEASURED AS LIQUIDS- LITRES/VOLUME AND AS SOLIDS -KG

[illegible]

WHITE BLOCK =
COMPATIBLE
(100MM
SPACE)

BLACK BLOCK= NOT
COMPATIBLE
(CLASSES NOT
ALLOWED
TOGETHER ON
SAME VEHICLE)

CLASS	1	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8 acid	8 base	9
1																
2.1											A	A		A		
2.2													A	A		
2.3													A			
3									A	A						
4.1									A	A						
4.2									A	A						
4.3									A	A						
5.1					A	A	A	A					A			
5.2					A	A	A	A						A		
6.1		A												A		
6.2		A												A		
7			A	A					A							
8 acid		A	A							A	A	A			A	
8 base														A		
9																

A BLOCK= SEPARATE
BY 1 METER
(CLASSES
ALLOWED
TOGETHER BUT
NEEDS TO HAVE
SPACE OF 1
METRE)




MIXED LOAD '1000' FORMULA

$$A = Q \times F$$




A- ANSWER
Q- QUANTITY
F- FACTOR

1	2	3	4	5	6	7	8	9	10	11
UN No.	Proper shipping name	Class	Pack- ing group	Subs. risk	Ex- empt quan- tities	F	P, B, L and O provisions			
							P	B	L	O



EXAMPLE

1	2	3	4	5	6	7	8	9	10	11
UN No.	Proper shipping name	Class	Pack- ing group	Subs. risk	Ex- empt quan- tities	F	P, B, L and O provisions			
							P	B	L	O
1944	MATCHES, SAFETY (book, card or strike on box)	4.1	III		500	2				
1823	SODIUM HYDROXIDE, SOLID	8	II		50	20	11			
1202	GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, flash point $\leq 60,5^{\circ}\text{C}$ c.c.	3	III		1 000	1				2
	GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, flash point $> 60,5^{\circ}\text{C}$ c.c.	3	III		1 000	1				

UN No	1944	1823	1202
SHIPPING NAME	MATCHES	SODIUM HYDROXIDE	DIESEL
CLASS	4.1 	8 	3 
CLASS NAME	FLAMMABLE SOLID	CORROSIVE	FLAMMABLE LIQUID
PG	III	II	III
QUANTIT Y	150	15	450

A1	=	Q	X	F	A2	=	Q	X	F	A3	=	Q	X	F
			X					X					X	

A1	=	Q	x	F	A2	=	Q	x	F	A3	=	Q	x	F
			x					x					x	

$$A1 = 150 \times 2 = 300$$

$$A2 = 15 \times 20 = 300$$

$$A3 = 450 \times 1 = 450$$

$$= 1050$$

IF THE SUM IS > 1000
THE LOAD IS A
“MIXED LOAD”

IS THIS A REGULATED
SINGLE LOAD
OR A REGULATED
MIXED LOAD?

Remember the “1000” Rule



POWERS AND DUTIES OF INSPECTORS- D.O.T

**DEMAND ANY PRESCRIBED DOCUMENT FROM DRIVER, OPERATOR, CONSIGNOR
INFORMATION ON SUBSTANCES
DEMAND EXPLANATION OF DOCUMENTS
WEIGH, COUNT/ MEASURE GOODS
MARK/SEAL PACKAGES OR VEHICLES
EXAMINE/COPY LOAD DOCUMENTS
INSPECT ANY D/GOODS OPERATION
DEMAND INFORMATION ON OPERATIONS
SEIZE ANY SUBSTANCES/ITEMS THAT MAY BE USED AS EVIDENCE/PROOF**





INSPECTORS AND TRAFFIC OFFICERS

MAY NOT

**OPEN DANGEROUS GOODS PACKAGES
UNLOAD OR DECANT DANGEROUS GOODS**

UNLESS

**THE OPERATOR IS DULY NOTED
AUTHORISED BY LOCAL AUTHORITY
QUALIFIED PERSON SUPERVISES**





PART FIVE



PLACARDING OF VEHICLES CONVEYING DANGEROUS GOODS

TYPES OF PLACARDS

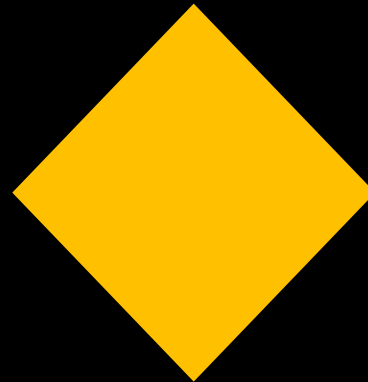
DANGEROUS GOODS PLACARD



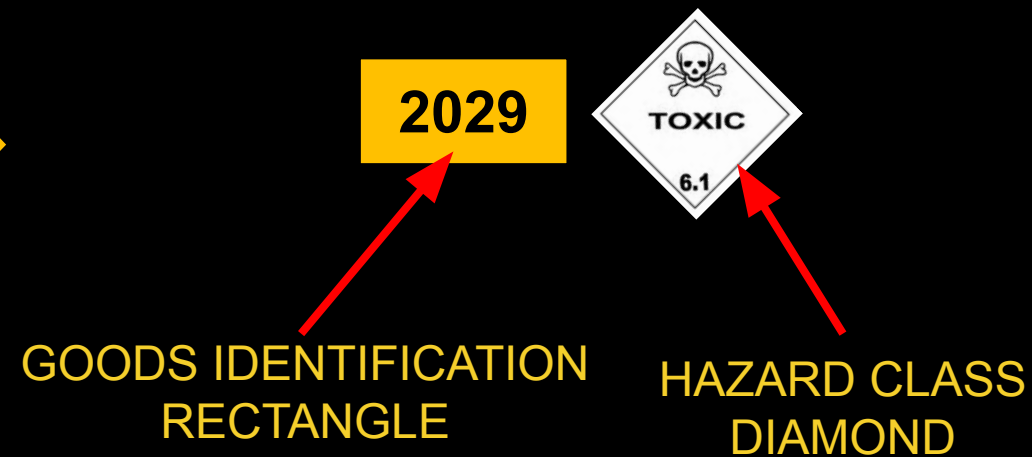
PRIMARY HAZARD
DIAMOND

SUBSIDIARY RISK
DIAMOND

DANGER WARNING DIAMOND



SPLIT PLACARDING



GOODS IDENTIFICATION
RECTANGLE

HAZARD CLASS
DIAMOND

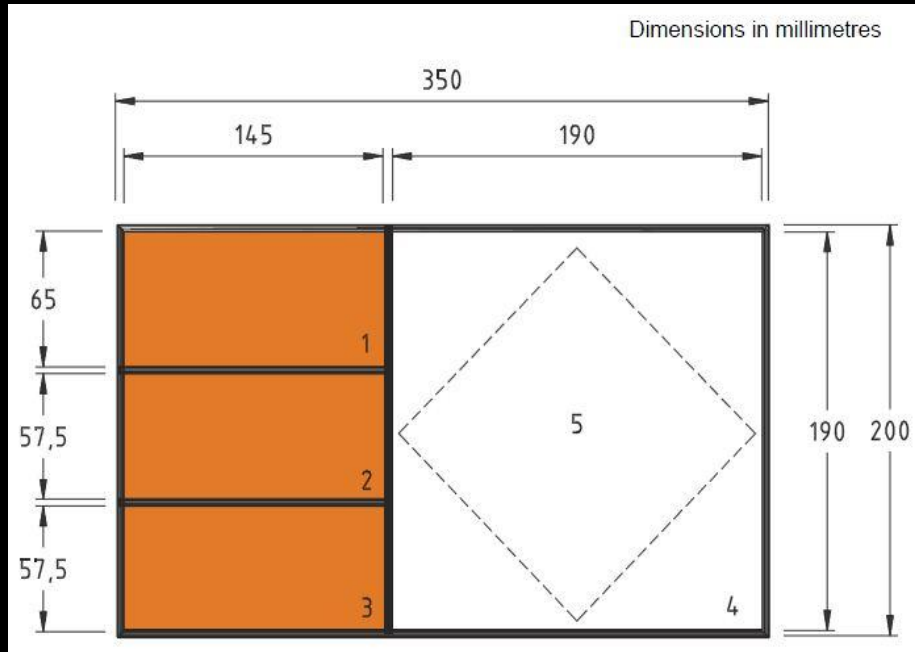
PLACARD ZONES

ZONE A	ZONE D
ZONE B	
ZONE C	

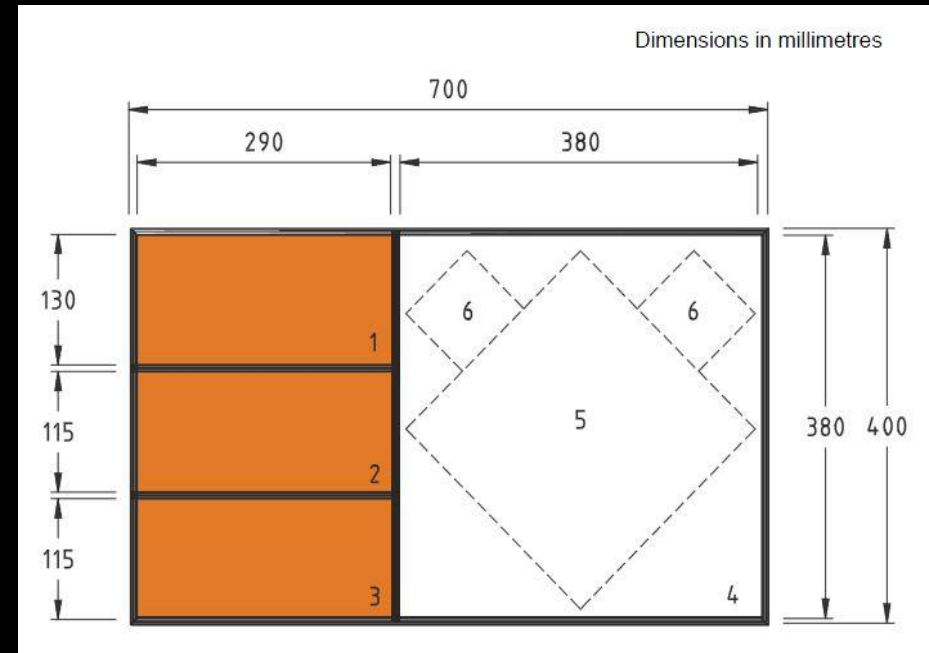
UN NUMBER	HAZARD CLASS DIAMOND ZONE
OPERATOR TELEPHONIC DEVICE ZONE	
SPECIALIST TELEPHONIC ADVICE ZONE	

MINIMUM SIZING OF PLACARDS

VEHICLES UNDER 3.5 TONS



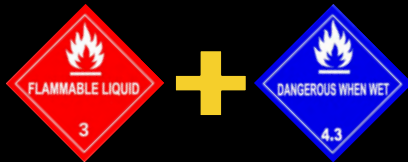
VEHICLES OVER 3.5 TONS



VERY IMPORTANT METHOD FOR EMERGENCY SERVICES & LAW ENFORCEMENT AGENCIES TO IDENTIFY TYPE OF LOAD CARRIED BY A DANGEROUS GOODS VEHICLE . IT 'S IMPORTANT THAT VEHICLES DISPLAY ACCURATE PLACARDS THAT PROPERLY IDENTIFY THE TYPE OF LOADS OR GOODS IN THE CASE OF AN INCIDENT.

MIXED LOAD PLACARDS

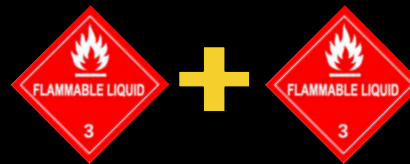
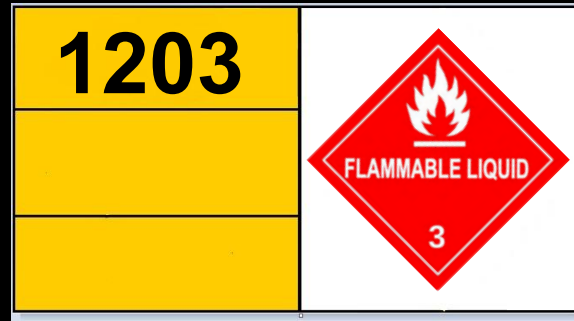
MORE THAN 1 HAZARD CLASS



1208
CLASS
3

1340
CLASS
4.3

SAME CLASS & ERG, MOST HAZARDOUS



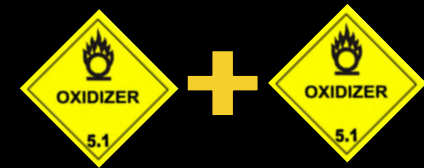
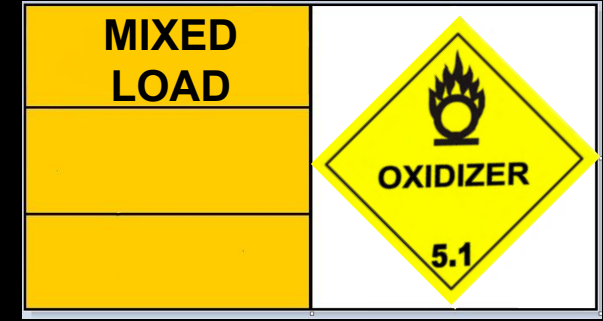
1208
ERG 128

PG III

1203
ERG 128

PG II

SAME CLASS, DIFFERENT ERG no.



2627
ERG 140

2741
ERG 141

PLACARD RULES

**CLEAN, LEGIBLE & VISIBLE (BLACK BORDER INCLUDED) NOT DEFACED AT ALL TIMES
DIRECTLY FIXED/ SUPPORTED BY PERMANENT FRAME**

3 REGULAR SIZE DG PLACARDS AFFIXED : 1 AT THE REAR, 1 ON LEFT AND 1 ON RIGHT.

CLEARLY VISIBLE FROM ROADSIDE.

**REGULAR SIZE ORANGE DANGER WARNING DIAMOND AFFIXED TO FRONT OF VEHICLE
SEEN CLEARLY FROM THE FRONT.**

**D/GOODS TRANSPORTED AT TEMP OF 100 DEGREES (LIQUIDS) 240 DEGREES (SOLIDS) MUST HAVE 3
ELEVATED TEMPERATURE WARNING TRIANGLES - 1 AT REAR & 1 ON EACH SIDE OF UNIT**





THINGS TO REMEMBER

DO NOT USE MIXED LOAD AS THE ANSWER FOR ALL LOADS OR OLD MULTILOAD PLACARDS AS IT IS **ILLEGAL**



DRIVERS MUST DISPLAY PLACARDS WHEN:

LOADED WITH D/GOODS.

SINGLE LOADS EXCEED EXEMPT QUANTITY

MIXED LOADS EXCEED "1000"

DRIVERS MUST REMOVE PLACARDS WHEN:

ALL GOODS OFFLOADED.

SINGLE LOADS UNDER EXEMPT QUANTITY

MIXED LOADS UNDER "1000"

NOTE: DOES NOT APPLY TO TANKERS!!!

OFFENCES

FAILING TO DISPLAY ACCURATE PLACARDS **THAT MATCH LOADS**

FAILING TO DISPLAY PLACARDS IF GOODS ARE **OVER THE EXEMPT QUANTITY**

FAILING TO DISPLAY **ANY** PLACARDS

NO PLACARDS!!!



R 35,000 FINE

**NOTE: DO NOT REMOVE PLACARDS ON THESE DANGEROUS GOODS
VEHICLES**





PART SIX



PRESCRIBED DOCUMENTS FOR DANGEROUS GOODS CONVEYED ON PUBLIC ROADS

TRANSPORT EMERGENCY CARDS- TEC

CARD THAT LISTS **HAZARDS & EMERGENCY INFORMATION** FOR A MATERIAL BEING TRANSPORTED

INTENDED FOR **USE BY DRIVER DURING INCIDENT/ BY EMERGENCY SERVICES IF REQUIRED**

DRIVERS NEED TO **HAVE THIS PRESENT** AND IT MUST BE **PLACED IN THE DESIGNATED SPACE ONLY WHEN TRANSPORTING THE CORRESPONDING D/GOODS**

TEC CARDS ARE VALID FOR 3 YEARS FROM EDITION DATE

TRANSPORT EMERGENCY CARD - Road Transport	
In accordance with SANS 10222-4	
PROPER SHIPPING NAME DIESEL FUEL	UN No. 1202 Class 3 Subsidiary risk Packing Group III ERG No. 129
APPEARANCE Liquid, Light brown; Strong odour	
DANGER •Highly flammable: Easily ignited by heat, sparks or flames. •Vapour could form explosive mixture with air. •Containers could explode when heated. •Vapour explosion hazard indoors, outdoors and in sewers. •Vapour could travel to source of ignition and flash back.	
PERSONAL PROTECTIVE EQUIPMENT •Protective goggles or face shield •Protective gloves •Protective shoes •Eyewash bottle with clean water	
EMERGENCY RESPONSE EQUIPMENT •Dry chemical or CO2 •Shovel •Sand or other absorbent	
DRIVER FIRST ACTIONS - Only if it can be carried out without personal risk •No smoking allowed •Warn road users and passers by to keep away from danger area •Keep upwind	
DRIVER SPECIAL/ADDITIONAL ACTIONS - Only if it can be carried out without personal risk •Avoid sparks •Warn all persons not to touch damaged packages or spilled material •Warn all persons of explosion hazard •Prevent runoff from entering water courses, sewers and basements	
DRIVER ACTIONS IN CASE OF FIRE - Only if it can be carried out without personal risk •Do not attempt to deal with any major fire that involves the load •Use fire extinguisher on small fire only if it can be done without personal risk	
FIRST AID •Move victim to fresh air •Apply artificial respiration if victim is not breathing •In case of contact with material, immediately flush skin or eyes (or both) with running water for at least 20 minutes •Remove and isolate contaminated clothing and shoes	
SPECIAL INFORMATION FOR EMERGENCY SERVICES •Use water spray, fog or alcohol-resistant foam •Do not use straight streams •Fight fire from maximum distance or use unmanned hose holders or monitor nozzles •Always stay away from ends of tanks	
ADDITIONAL INFORMATION	
EMERGENCY TELEPHONE NUMBERS (applicable numbers to be printed here) PREPARED BY (Company Name to be printed here) from the best knowledge currently available; no guarantee is provided that the information is sufficient or correct under all circumstances.	
Date: 2010-01-20 Reference: 182-1202-M0012	



TRANSPORT EMERGENCY CARD - Road Transport

In accordance with SANS 10232-4

PROPER SHIPPING NAME
DIESEL FUEL

APPEARANCE
Liquid; Light brown; Strong odour

DANGER

•Highly flammable: Easily ignited by heat, sparks or flames •Vapour could form explosive mixture with air •Containers could explode when heated •Vapour explosion hazard indoors, outdoors and in sewers •Vapour could travel to source of ignition and flash back

PERSONAL PROTECTIVE EQUIPMENT

•Protective goggles or face shield •Protective gloves •Protective shoes •Eyewash bottle with clean water

UN No.	1202
Class	3
Subsidiary risk	
Packing Group	III
ERG No	128





EMERGENCY RESPONSE EQUIPMENT

•Dry chemical or CO2 •Shovel •Sand or other absorbent

DRIVER FIRST ACTIONS - Only if it can be carried out without personal risk

•No smoking allowed •Warn road users and passers by to keep away from danger area •Keep upwind

DRIVER SPECIAL/ADDITIONAL ACTIONS - Only if it can be carried out without personal risk

•Avoid sparks •Warn all persons not to touch damaged packages or spilled material •Warn all persons of explosion hazard •Prevent runoff from entering water courses, sewers and basements

DRIVER ACTIONS IN CASE OF FIRE - Only if it can be carried out without personal risk

•Do not attempt to deal with any major fire that involves the load •Use fire extinguisher on small fire only if it can be done without personal risk

FIRST AID

•Move victim to fresh air •Apply artificial respiration if victim is not breathing •In case of contact with material, immediately flush skin or eyes (or both) with running water for at least 20 minutes •Remove and isolate contaminated clothing and shoes

SPECIAL INFORMATION FOR EMERGENCY SERVICES

•Use water spray, fog or alcohol-resistant foam •Do not use straight streams •Fight fire from maximum distance or use unmanned hose holders or monitor nozzles •Always stay away from ends of tanks

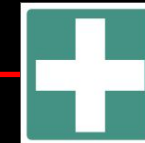
ADDITIONAL INFORMATION

EMERGENCY TELEPHONE NUMBERS (applicable numbers to be printed here)

PREPARED BY (Company Name to be printed here)

from the best knowledge currently available; no guarantee is provided that the information is sufficient or correct under all circumstances.

Date: 2010-01-20
Reference: 182-1202-M0012







DANGEROUS GOODS DECLARATION- DGD

DOCUMENT THAT DESCRIBES AND QUANTIFIES THE DANGEROUS GOODS BEING TRANSPORTED FROM A
CONSIGNOR TO A CONSIGNEE

CONSIGNOR –KEEPS 1 COPY OPERATOR- DRIVER MUST HAND IN CONSIGNEE- KEEPS 1 AFTER
DELIVERY

MUST BE KEPT FOR 90 DAYS MINIMUM

DANGEROUS GOODS DECLARATION Consignment Note No: 101 11X	
 Consignor: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000	 Operator: B Higgins, Higgins Road freight, 200 South Ave, Germiston Tel: 011 200 2000 Reg. no. vehicle: XYZ 200 GP
	
Product manufacturer	 Consignee: ABC Chemicals, 300 Marine Drive, Durban Tel: 031 300 3000
Product owner	Additional information on handling/transport/ storage: The package marked with UN XXXX shall be shaded from sunlight
Product custodian	
Party contracting the operator: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000	

DANGEROUS GOODS DECLARATION Consignment Note No: 101 11X				Company Logo (optional)		
Consignor: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000				Operator: B Higgins, Higgins Road freight, 200 South Ave, Germiston Tel: 011 200 2000 Reg. no. vehicle: XYZ 200 GP		
Product manufacturer				Consignee: ABC Chemicals, 300 Marine Drive, Durban Tel: 031 300 3000		
Product owner				Additional information on handling/transport/ storage: The package marked with UN XXXX shall be shaded from sunlight		
Product custodian						
Party contracting the operator: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000						
Shipping name:	UN No:	Haz Clas s:	PG:	Quantity & type of Packaging:	Gross mass kg:	Net mass/vol kg/L
Paint	1263	3	III	2 fibreboard boxes, 4 x 5 L each	52	41.5
DECLARATIONS "I hereby declare that the content of this consignment is fully and accurately described above by the proper shipping name, and is classified, packaged, marked and labeled/placarded and in all respects, in proper condition for transport in accordance with the relevant national legislation." Where the consignor is not the manufacturer, the declaration is based on information received. Consignor : Product manufacturer / Product owner / Product custodian / Contracting Party that contracts the operator : Signed: <i>R A Jones</i> Date: 2008-03-15 "The consignment described above has been received into my vehicle. My vehicle is correctly placarded and I am in possession of all necessary transport documentation pertaining to the transport of dangerous goods, including information to be followed in case of an emergency." Driver Signed: <i>J K Williams</i> Date: 2008-039-15						

DESIGNATED SPACE

**ORANGE CONTAINER MARKED WITH THE WORD DOCUMENTS IN BLACK.
PERMANENTLY FIXED IN CLEARLY VISIBLE SPACE NEAR THE CENTRE OF THE
CAB SO AS TO BE EASILY ACCESSIBLE FROM EITHER DOOR OR THROUGH
A BROKEN FRONT WINDOW.**

CAN BE METAL/PLASTIC, PVC TUBE OR VINYL/CANVAS BAGS





PART SEVEN



DUTIES OF THE CONSIGNOR



NO IDLING
TURN OFF
ENGINE
AND CHOCK WHEELS



health & safety

WHAT IS A CONSIGNOR?

PERSON WHO OFFERS DANGEROUS GOODS FOR TRANSPORT IN A VEHICLE.

IS RESPONSIBLE FOR THE LOADING OF VEHICLES
PART 4 SANS 10231

MUST LOAD ACCORDING TO ALL RELEVANT NATIONAL LEGISLATION

THE CONSIGNOR OF D/GOODS FOR TRANSPORT BY ROAD VEHICLE MUST ENSURE THAT

GOODS ARE **CORRECTLY CLASSIFIED** (SANS 10228)

GOODS ARE **PACKAGED IN ACCORDANCE** WITH SANS 10229-1 & SANS 10233

LOADING OF D/GOODS IS CARRIED OUT BY QUALIFIED PERSON.

DRIVER IS PROVIDED WITH SIGNED DGD
DRIVER IS PROVIDED WITH PLACARDS & TEC CARDS

WARNING!!!

DRIVERS AND OPERATORS SHOULD REFUSE TO LOAD NON-COMPLIANT LOADS OF DANGEROUS GOODS

ACCEPTANCE OF ILLEGAL LOADS TRANSFERS LEGAL LIABILITY TO OPERATORS AND DRIVERS





PART EIGHT



DUTIES OF THE QUALIFIED PERSON



WHAT IS A QUALIFIED PERSON?

A PERSON TRAINED TO PERFORM A SPECIFIC TASK, AND NOMINATED BY OPERATOR, CONSIGNOR OR CONSIGNEE.



SAFETY PRECAUTIONS

QUALIFIED PERSON MUST MAKE SURE THAT :

VEHICLE IS **CORRECTLY PARKED** FOR LOADING/OFFLOADING

WHEEL CHOCKS ARE IN PLACE FOR HEAVY VEHICLES WITH **GVM EQUAL TO/GREATER THAN 3500KG**
PLACED APPROPRIATELY UNDER WHEELS ON NON-STEERING AXLES

VEHICLE FIRE EXTINGUISHERS TO BE PLACED WHERE NOT PROVIDED BY LOADING/UNLOADING POINT

VEHICLE ENGINE SWITCHED OFF

AREA IS SAFE, WITH BARRICADES, NECESSARY WARNING SIGNS

REQUISITE SAFETY & FIRST AID EQUIPMENT IS PROVIDED

LOAD IS ADEQUATELY SECURED



QUALIFIED PERSON LOADING REQUIREMENTS

QUALIFIED PERSON MUST MAKE SURE THAT :

GOODS TO BE LOADED ARE **CORRECTLY IDENTIFIED ,PACKAGED,LABELLED**
VEHICLE IS SUITABLE FOR CURRENT PURPOSE & IS CLEAN/ FIT TO LOAD
EXEMPT QUANTITY COMPATIBILITY REQUIREMENTS ARE ADHERED TO
CORRECT QUANTITY IS LOADED,COMPLIES WITH RELEVANT NATIONAL LEGISLATION
CARGO IS UNDAMAGED PROPERLY SECURED
DRIVER HAS **CORRECT TEC CARD(S)** IN POSSESSION
NECESSARY DGDS ARE MADE OUT FOR LOAD AND SUPPLIED TO DRIVER.
SPECIAL P,B,L,O (ANNEX C) PROVISIONS ARE ADHERED TO
VEHICLE ISNT ALLOWED TO PROCEED ON JOURNEY WITHOUT CORRECT PLACARDS



DANGER 6000 (DELAR70)		Company Logo (optional)	
Consignee: R. A. Jones, Jones Maritime, 100 High St, London, SW1 1 1AA		Operator: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Product name: 6000 Chemicals		Reg no. vehicle: 123 456 789	
Product code: 6000 Chemicals		Company: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Product description: 6000 Chemicals		Additional description: 6000 Chemicals	
Fully certified: R. A. Jones, Jones Maritime, 100 High St, London, SW1 1 1AA		Fully certified: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Shipping name: 6000 Chemicals		Net weight: 1000 kg	
UN No: 1234		Net weight: 1000 kg	
Hazard: 3		Net weight: 1000 kg	
Packaging: 1		Net weight: 1000 kg	
Gross mass: 1000 kg		Net weight: 1000 kg	
Net weight: 1000 kg		Net weight: 1000 kg	

DANGER 6000 (DELAR70)	
Consignee: R. A. Jones, Jones Maritime, 100 High St, London, SW1 1 1AA	
Operator: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Reg no. vehicle: 123 456 789	
Company: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Additional description: 6000 Chemicals	
Fully certified: R. A. Jones, Jones Maritime, 100 High St, London, SW1 1 1AA	
Fully certified: B. Higgins, Higgins Logistics, 200 High St, London, SW1 1 1AA	
Shipping name: 6000 Chemicals	
UN No: 1234	
Hazard: 3	
Packaging: 1	
Gross mass: 1000 kg	
Net weight: 1000 kg	





QUALIFIED PERSON OFFLOADING REQUIREMENTS



QUALIFIED PERSON MUST MAKE SURE THAT :

CARGO IS **CORRECT/UNDAMAGED**, NO OBVIOUS SPILLAGE
LOAD IS REFUSED IF IN DOUBT AS TO WHETHER GOODS CAN BE OFFLOADED WITHOUT RISK
OFFLOADING OPERATION DOES NOT PROCEED IF CONSIDERED UNSAFE

BULK DELIVERIES:

SUFFICIENT SPACE IN TANKS/BINS
FLOW CAN BE STOPPED IMMEDIATELY IN CASE OF LEAKAGE
VEHICLE FREE FROM SPILLAGE AFTER OFFLOADING

PART LOADS: REMAINING LOAD IS **PROPERLY SECURED**
DOCUMENTS REFLECT CHANGE IN LOAD.

NO RESIDUE REMAINS ON VEHICLE
PLACARDS REMAIN ON IF VEHICLE CANNOT BE CERTIFIED CLEAN.





PART NINE



DUTIES OF THE OPERATOR



THE OPERATOR

PERSON RESPONSIBLE FOR USE OF A MOTOR VEHICLE OF ANY CLASS CONTEMPLATED IN CHAPTER VI & BEEN REGISTERED AS THE OPERATOR OF SUCH VEHICLE.

MUST BE REGISTERED AS 'DANGEROUS GOODS OPERATOR' WITH RELEVANT LICENSING AUTHORITY WHERE VEHICLE IS REGISTERED & LICENSED

MUST MAKE SURE THAT AN OPERATOR CARD IS DISPLAYED ON VEHICLES

OPERATEURSKAART
RSA

NR. NO.
Reg.-owerh./Reg. auth.

Lisensienr.
Licence no.

Vrt.registernr.
Veh. register no.

NVK NVC

VIN BVM/GVM

Fabrikaat
Make

Kategorie
Category G,D

Naam
Name

Identiteitsnr. 04 / Identity no.

Adres
Address

Vervaldatum/Date of expiry

OPERATOR CARD

DUTIES OF THE OPERATOR

THE OPERATOR MUST:

AGREE ON BASIC ROUTE WITH DRIVER

INFORM LOCAL AUTHORITIES ON ROUTE AND PROVIDE FULL INFO ON PRODUCTS IF IT IS REQUESTED

ENSURE THE DRIVER HAS A PRDP-D

NOTIFY EMS & POLICE OF ANY INCIDENT INVOLVING THEIR VEHICLE AND MUST PREPARE INCIDENT REPORT IN ACCORDANCE WITH ANNEX D AND SUBMIT TO RELEVANT GOVERNMENT DEPARTMENT WITHIN 30 DAYS OF INCIDENT

REPLACE/ REPAIR VEHICLE

TRANSFER OF CARGO AS RESULT OF OVERLOADING/ INCIDENT BETWEEN SCHEDULED LOADING & OFFLOADING POINTS MUST BE TREATED AS INCIDENT THAT REQUIRES EMS TO BE NOTIFIED.

DUTIES OF THE OPERATOR

THE OPERATOR MUST:

SUBMIT VEHICLE FOR FULL ROADWORTHY & COMPLIANCE INSPECTION IF IT IS INVOLVED IN ACCIDENT WITH RISK OF DAMAGE TO CARGO CONTAINMENT AREA.

SUPPLY DRIVER WITH SAFETY EQUIPMENT AS PER TREMCARDS & PROVIDE TRAINING IN USE OF IT

ENSURE INSURANCE IS IN PLACE FOR CIVIL LIABILITY, RECOVERY OF SPILLS & REHABILITATION COSTS

MUST BE NOTIFIED BY DRIVER IN EVENT OF MECHANICAL BREAKDOWN IMMEDIATELY



OPERATOR MUST BE NOTIFIED WHEN:

**PACKAGES ARE TO BE OPENED
UNLOADING OR DECANTING ARE TO OCCUR DUE TO OVERLOADING/ INCOMPATIBILITY
ISSUES.
MUST ARRANGE QUALIFIED PERSON**



VEHICLE INSPECTIONS:

VEHICLES MUST BE REGISTERED FOR TRANSPORT OF DANGEROUS GOODS

MUST BE INSPECTED REGULARLY TO ENSURE THEIR SOUND MECHANICAL CONDITION &
ABILITY TO OPERATE SAFELY

DETAILED RECORDS MUST BE KEPT.

MUST EITHER BE CARRIED OUT AT OPERATOR'S DEPOT BY SUITABLY QUALIFIED STAFF
OR SUBCONTRACTED TO COMPETENT WORKSHOP



PART TEN



DUTIES OF THE DRIVER



DRIVERS MUST :

HAVE A PRPD-D (ALL VEHICLES)

BE FIT TO DRIVE (AS PER NRTA)

INTERPRET AND IMPLEMENT INSTRUCTIONS OF TREMCARDS

**RECEIVE ANNUAL COMPREHENSIVE THEORETICAL & PRACTICAL TRAINING RELEVANT
TO TYPE OF VEHICLE & DANGEROUS GOODS ASSIGNED TO HIM INCLUDING
PROCEDURES SPECIFIC TO THE CARGO**

DUTIES OF THE DRIVER

PRELIMINARY CHECKS

BEFORE DRIVING TO LOADING SITE DRIVER NEEDS TO CHECK THAT:

VALID DANGEROUS GOODS OPERATOR CARD IS DISPLAYED

VEHICLE IS ROADWORTHY

VEHICLE IS FIT FOR USE BY GOING THROUGH CHECKLIST AT START OF JOURNEY

**VEHICLE IS FREE FROM ANY PRODUCT LIKELY TO CONTAMINATE LOAD OR CREATE A
SAFETY HAZARD**

PRELOADING CHECKS

BEFORE LOADING IS COMMENCED DRIVER SHALL ENSURE THAT:

SITE APPEARS SUITABLE FOR OPERATION

VEHICLE IS POSITIONED AS DIRECTED, FOR LOADING

**PERMISSION IS GIVEN FOR LOADING TO COMMENCE (BY CONSIGNOR/ QUALIFIED
PERSON)**

DUTIES OF THE DRIVER

POST LOADING CHECKS

DRIVER SHALL ENSURE THAT:

CORRECT TEC CARDS & DGD STORED IN DESIGNATED SPACE

ONLY DOCUMENTS FOR **CURRENT LOAD** ARE IN DESIGNATED SPACE , ALL EXTRANEIOUS DOCUMENTATION REMOVED

NECESSARY SAFETY EQUIPMENT IN ACCORDANCE WITH TEC CARD IS ONBOARD

HE/SHE **UNDERSTANDS INFORMATION & INSTRUCTIONS** ON TEC CARD

ORANGE DIAMOND AND PLACARDS ARE IN PLACE

VEHICLE IS NOT OVER/UNDER-LOADED AS TO PRESENT A SAFETY RISK AND LOAD IS SECURED.

EN-ROUTE PROCEDURES

**FOLLOW AGREED ROUTE
NOT PARTICIPATE IN ANY OTHER ACTIVITIES NOT RELATED TO LOAD
NO UNAUTHORISED PASSENGERS ARE ALLOWED IN THE VEHICLE
ONLY STOP AT AGREED PLACES**

**VEHICLE CARRYING DANGEROUS GOODS SHALL BE UNDER CONSTANT SUPERVISION
STOPPED OR PARKED IF:**

**DANGEROUS GOODS CARRIED HAVE EXEMPT QUANTITY OF 10 KG / 10 LITRES OR LESS
ANY ONE OR MORE OF SPECIAL PROVISIONS O14 TO O20 (INCLUSIVE) IN C.5 APPLIES**

**OPENING OF PACKAGES UNLOADING/ DECANTING OF ANY REASON IS NOT PERMITTED
,EXCEPT IN AUTHORIZED & PROPERLY EQUIPPED AREA UNDER SUPERVISION OF
QUALIFIED PERSON,& THE OPERATOR HAS BEEN INFORMED**

**REGULATORY TRIANGLES TO BE PLACED ON ROAD AND OPERATOR INFORMED
IMMEDIATELY.**

**INSTRUCTIONS ON TEC CARDS MUST BE FOLLOWED & NECESSARY ASSISTANCE MUST
BE GIVEN TO EMERGENCY SERVICES. TEC CARDS & DGDS MUST BE HANDED OVER TO
EMS WHEN REQUESTED.**

TIME LIMITS FOR DRIVING PERIODS

FOR DRIVERS NOT ACCOMPANIED BY PERSON QUALIFIED & AUTHORIZED TO DRIVE
SUCH A VEHICLE IS AS FOLLOWS:

DRIVING PERIODS

MAXIMUM OF 5 HOURS CONTINUOUS DRIVING TIME

MAXIMUM TOTAL 14 HOURS DRIVING TIME IN PERIOD OF 24 HOURS

RESTING PERIODS

MINIMUM RESTING PERIOD 15 MINS

MINIMUM RESTING PERIOD WITH TOTAL 30 MIN ACCUMULATED DURING PERIOD OF 5,5
HOURS

MINIMUM CONTINUOUS RESTING PERIODS OF 9 HOURS IN PERIOD OF 24 HOURS

PROFESSIONAL DRIVING PERMIT- PRDP

CERTAIN DRIVERS NEED TO HOLD A PRDP AS FOLLOWS:

GOODS VEHICLE ,GROSS VEHICLE MASS OF WHICH EXCEEDS 3500KG
MOTOR VEHICLE THE GROSS VEHICLE MASS OF WHICH EXCEEDS 3500KG TO WHICH
REGULATIONS 273 TO 283 APPLY AS CONTEMPLATED IN REGULATION 274

TO AVOID DELAYS AND LATE DELIVERIES OF LOADS IT IS RECOMMENDED THAT YOU
APPLY FOR PRDP-D IN ANY EVENT.

ALL DRIVERS MUST BE TRAINED IN UNIT STANDARD 123259 (CONVEY DG BY ROAD) &
EXPECTED TO CARRY THIS PROOF TO PRESENT SUCH PROOF WHEN REQUESTED TO DO
SO BY LAW ENFORCEMENT OFFICERS.

YOU MUST BE 25 YEARS OR OLDER TO APPLY FOR THIS CATEGORY

STAATSKOERANT, 31 OKTOBER 2014				No. 3814	
Address where notice must be served (mark with X)		postal address posadres	street address straatadres	Adres waar kennisgewing beteken moet word (merk met X)	
CATEGORY OF PROFESSIONAL DRIVING PERMIT		B	KATEGORIE VAN PROFESSIONELE BESTUURSPERMIT		
Mark with a cross (X) the category(ies) for which a professional driving permit is required. Note that category D automatically includes category G.		Trek 'n kruis (X) teenoor die kategorie(ë) waarvoor 'n professionele bestuurspermit verlang word. Neem kennis dat kategorie D outomaties kategorie G insluit.			
Category	passengers passasiers P (21 years/jaar)	dangerous goods gevaarlike goedere D (25 years/jaar)	or of	goods goedere G (18 years/jaar)	Kategorie
State whether any previous application for a professional driving permit had been refused, and if so, where, when and reasons for refusal.			Meld of enige vorige aansoek om 'n professionele bestuurspermit geweier is, en indien wel, waar, wanneer en redes vir weiering.		

PRDP DISQUALIFICATION

IF YOU ARE **UNDER** THE AGE OF **25 YEARS OLD**

IF YOU HAVE A **CRIMINAL RECORD** THAT IS **UNDER 5 YEARS OLD**- FOR RECKLESS OR
NEGLIGENT DRIVING

VIOLENT CRIMES

DRUNK DRIVING & DRUGS

PERSONAL PROTECTIVE EQUIPMENT FOR DRIVERS

HAZARDOUS CHEMICALS & TOXIC SUBSTANCES CAN ENTER THE BODY IN THE FOLLOWING WAYS

**ABSORPTION- THROUGH SKIN
INHALATION- DUST, GAS, FUMES
INGESTION-SWALLOWING
INJECTION- SHARP OBJECTS**

ONCE WE KNOW POSSIBLE ROUTE OF ENTRY OF SUBSTANCES, WE CAN PREVENT CONTAMINATION IN THE FOLLOWING METHODS :

**ELIMINATION- 100%
TRANSFER-100%
SUBSTITUTION-90%
ENGINEERING-80%
ADMIN-60%
PPE-40%**

PERSONAL PROTECTIVE EQUIPMENT FOR DRIVERS





PART ELEVEN



DUTIES OF THE CONSIGNEE



WHAT IS A CONSIGNEE AND WHAT ARE THEY RESPONSIBLE FOR?

A PERSON WHO **ACCEPTS DANGEROUS GOODS** WHICH HAVE BEEN TRANSPORTED IN A VEHICLE



RESPONSIBLE FOR THE **OFFLOADING** OF DANGEROUS GOODS
PROVIDE THE QUALIFIED PERSON TO CARRY OUT **OFFLOADING PROCEDURES**(UNLESS
OTHERWISE AGREED UPON AMONGST RESPONSIBLE PARTIES

CONSIGNEE DUTIES

REQUIREMENTS THAT RELATE TO OFFLOADING OPERATIONS (SANS 10231:2014 PART 4.4.4

QUALIFIED PERSON ENSURES THAT:

CARGO IS CORRECT/UNDAMAGED & NO OBVIOUS SPILLAGE

**LOAD IS REFUSED IF IN DOUBT AS TO WHETHER GOODS CAN BE OFFLOADED WITHOUT RISK
OFFLOADING OPERATION DOESN'T PROCEED IF CONSIDERED UNSAFE**

BULK DELIVERIES: SUFFICIENT SPACE IN TANKS/ FIT TO RECEIVE LOAD
FLOW CAN BE STOPPED IMMEDIATELY IN CASE OF LEAKAGE

**AFTER OFFLOADING, VEHICLE FREE FROM SPILLAGE/ ALL VALVES CLOSED
PART LOADS PROPERLY SECURED**

**AFTER OFFLOADING , DOCUMENTS REFLECT CHANGE IN LOAD (PLACARDING REMOVED IF
NECESSARY, DOCUMENTS REMOVED FROM DESIGNATED SPACE.**

**NO RESIDUE REMAINS ON VEHICLE/ FREE FROM CONTAMINATION (CONSIGNEE MUST CLEAN
SPILLAGES)**



PART TWELVE



VEHICLE COMPLIANCE



WHAT IS VEHICLE COMPLIANCE?

**REQUIRED THAT VEHICLES ARE PROPERLY REGISTERED & LICENSED
MUST BE MAINTAINED IN A 100% ROADWORTHY CONDITION (ALL DANGEROUS GOODS VEHICLES REQUIRE
AN ANNUAL ROADWORTHY CERTIFICATE-BOTH LIGHT/HEAVY GOODS VEHICLES)
MUST BE FITTED WITH PRESCRIBED SIGNAGE AND EQUIPMENT (SANS 1157)**

**ONCE SIGNAGE & EQUIPMENT HAVE BEEN FITTED CORRECTLY, VEHICLES MUST BE REGISTERED AT
RELEVANT LOCAL LICENSE DEPARTMENT AS CATEGORY 'D'/ DANGEROUS GOODS CARRIER.**

**THEN VEHICLES MUST BE SUBMITTED FOR INSPECTION AT DESIGNATED FIRE DEPARTMENT AND IF THE
VEHICLE MEETS ALL SANS 1157:2013 REQUIREMENTS THEN A DANGEROUS GOODS TRANSPORT PERMIT
(VALID FOR 12 MONTHS) IS ISSUED
IT MUST BE DISPLAYED ON WINDSCREEN OF D/GOODS VEHICLE ON THE LEFT. (OPERATOR REGISTRATION)**



MUNICIPAL PERMITS FOR PANEL VAN & LDV CHECKLIST (PG 89)

IS DRIVER SHIELDED FROM LOAD

X2 FIRE EXTINGUISHERS (DCP)

X2 QUICK RELEASE BRACKETS

ORANGE WARNING DIAMOND

OPERATOR CARD- CATEGORY 'D'

DOCUMENT HOLDER (DESIGNATED SPACE)

VENTILATION WHERE APPLICABLE

SIDES 600MM HIGH (OPEN VEHICLES)

X3 PLACARDS /BRACKETS -350 X 200

X3 NO SMOKING SIGNS

X3 NO NAKED FLAME 150 X 150MM

X3 NO CELLPHONE- BATTERY ISOLATOR



**OPERATEURSKAART
RSA**

NR. _____

Reg.-owerh./Reg. auth.
Kempton Park

Lisensienr.
Licence no. _____

Vrt.registernr.
Veh. register no. _____

NVK _____ NVC _____

VIN _____ BVM/GVM **14000 kg**

Fabriikaat
Make _____ Kategorie
Category **G,D**

Naam
Name _____

Identiteitsnr. **04 /** Identity no. _____

Adres
Address _____

Vervaldatum/Date of expiry _____

OPERATOR CARD



MUNICIPAL PERMITS FOR TRUCK TRACTOR CHECKLIST-PG 90

X1 FIRE EXTINGUISHER (DCP)

X1 QUICK RELEASE BRACKET

ORANGE WARNING DIAMOND

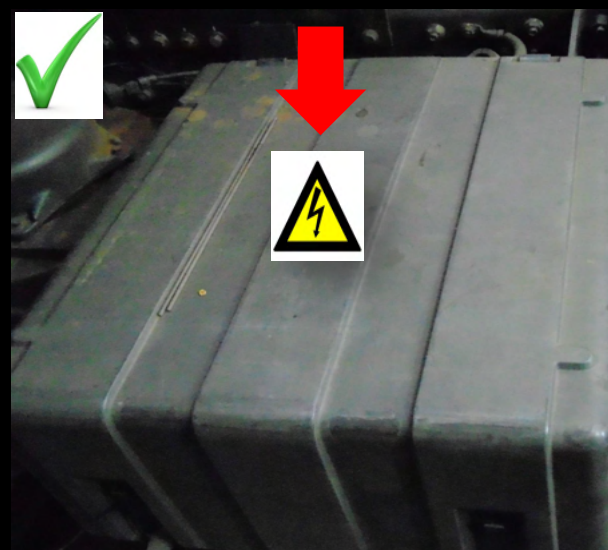
EXHAUST SHIELD –FLAMMABLES/EXPLOSIVES

OPERATOR CARD- CATEGORY 'D'

DOCUMENT HOLDER (DESIGNATED SPACE)

**BATTERY COVER -INSULATED
-VENTILATED**

BATTERY ISOLATOR SWITCH WITH ON AND OFF POSITIONS MARKED



MUNICIPAL PERMITS FOR SKELETAL/GOODS TRAILERS CHECKLIST-PG 93

X2 FIRE EXTINGUISHERS (DCP)

X2 QUICK RELEASE BRACKETS

OPERATOR CARD- CATEGORY 'D'

HIGH SIDES OF 600MM FOR GAS/UNSECURED LOADS

X3 PLACARDS/BRACKETS – 700 X 400

X3 NO SMOKING SIGNS

X3 NO NAKED FLAME 290 X 290 MM

X3 NO CELLPHONE SIGNS



**OPERATEURSKAART
RSA**

NR. _____

Reg.-owerh./Reg. auth.
Kempton Park

Lisensienr. _____ Vrt. registernr. _____
Licence no. _____ Veh. register no. _____

NVK _____ NVC _____

VIN _____ BVM/GVM 14000 kg

Fabrikkat _____ Kategorie _____
Make _____ Category G,D

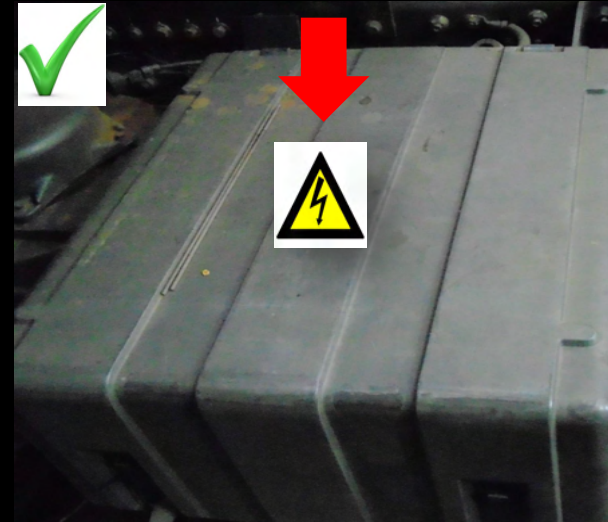
Naam _____
Name _____

Identiteitsnr. 04 / _____ Identity no. _____

Adres _____
Address _____

Vervaldatum/Date of expiry _____

OPERATOR CARD

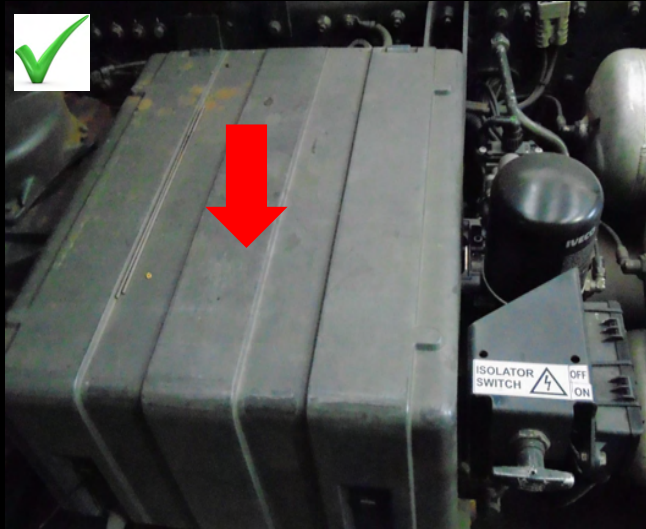
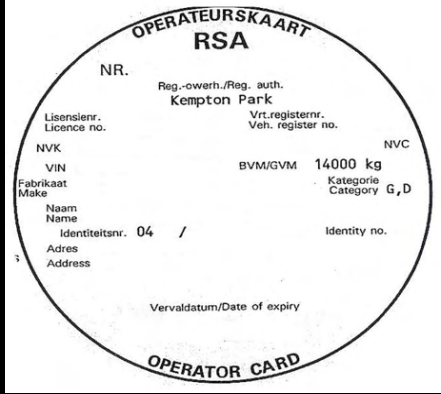


MUNICIPAL PERMITS FOR RIGID TANK TRUCKS & TANK TRAILERS

CHECKLIST-PG 92



- X2 FIRE EXTINGUISHERS (DCP)**
- X2 QUICK RELEASE BRACKETS**
- OPERATOR CARD- CATEGORY 'D'**
- ORANGE WARNING DIAMOND- TRUCKS**
- DOCUMENT HOLDER(DESIGNATED SPACE)**
- X3 PLACARDS/BRACKETS – 700 X 400**
- X3 NO SMOKING SIGNS**
- X3 NO NAKED FLAME 290 X 290 MM**
- X3 NO CELLPHONE SIGNS**
- PIPE FITTINGS MUST NOT PROJECT**
- MUST HAVE A REAR BUMPER TO PROTECT TANK & PIPES FROM COLLISION**
- X2 WHEEL CHOCKS,HD,NON SPARK**
- BATTERY COVER- INSULATED AND VENTILATED**
- BATTERY ISOLATOR SWITCH WITH ON & OFF POSITIONS MARKED**





**PIPES & FITTINGS MAY
NOT PROJECT**

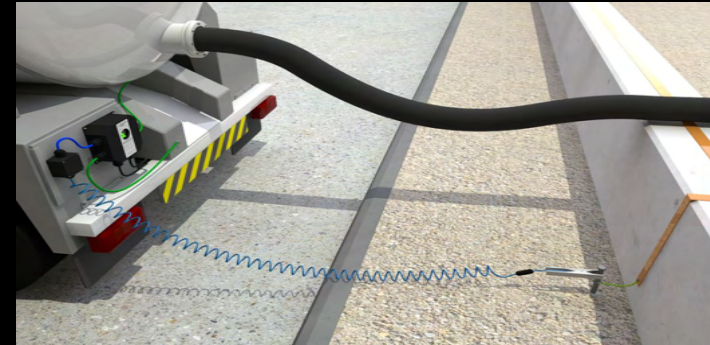


**REAR BUMPER TO
PROTECT
TANKS/PIPES**

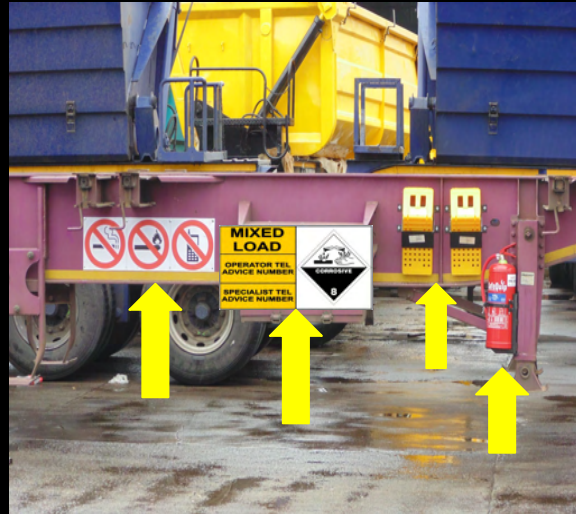
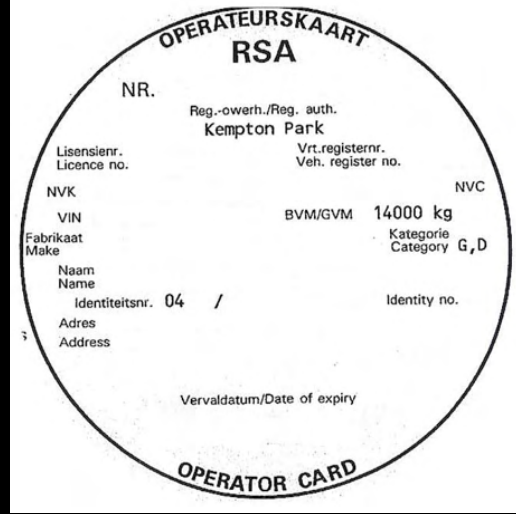


ELECTRICAL BONDING

CONTINUITY



**EARTHING POINTS ON
EACH SIDE OF
VEHICLE**





PART THIRTEEN



FIRE FIGHTING & FIRST AID



FIRE EXTINGUISHERS

**DANGEROUS GOODS VEHICLES MUST BE EQUIPPED WITH PRESCRIBED PORTABLE FIRE EXTINGUISHERS OF DRY CHEMICAL POWDER TYPE (DCP).
MUST BE SUITABLE FOR CLASS A,B AND C FIRES.**



TRUCK TRACTORS- X1 9 KG EXTERNAL FIRE EXTINGUISHER

TRAILERS- X2 9KG MINIMUM EXTERNAL FIRE EXTINGUISHERS

LIGHT MOTOR VEHICLE- (LESS THAN 3500KG GVM)- X2 4.5KG/ X1 9KG FIRE EXTINGUISHER





FIRE EXTINGUISHERS

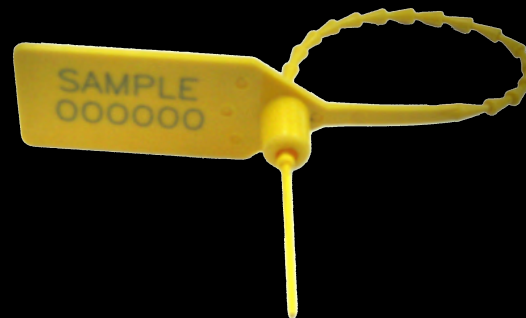
MUST BE MOUNTED ON QUICK RELEASE BRACKETS

MUST BE PROTECTED FROM NEGATIVE ENVIRONMENTAL & OPERATIONAL INFLUENCES (E.G. CORROSIVES)

MUST NOT BE MOUNTED 90 DEGREES OR 180 DEGREES, RATHER 45 DEGREES AS THIS ANGLE PREVENTS COMPACTION OF MONO-AMMONIUM PHOSPHATE POWDER.

MUST BE PROVIDED WITH

**SEALS- TO VERIFY NON-USAGE
GAUGES- PRESSURE CORRECT
LABELS- LAST /NEXT DATE
SANS 1910 APPROVAL MARK.**



FIRE EXTINGUISHER MAINTENANCE RECORD					
This fire extinguisher is serviced and maintained in accordance with the recommendations and frequencies of British Standard 5306 part 3 and refilled when required to BS6643 part 1 and future amendments					
DATE	CODE	COMMENTS	NSD	WEIGHT	ENG

CODES R - Refilled B - Basic Service E - Extended Service O - Overhaul AR - Advise Replacement NSD - Next Service Due Weight - Extinguisher or Cartridge (Delete as applicable)	Next Test Discharge Due <input type="text"/> Last Test Discharged <input type="text"/> <input type="text"/>
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FIRE CLASSES

TYPES OF FIRES

CLASS A ORDINARY COMBUSTIBLES:
wood, paper, rubber,
fabrics and many plastics



CLASS B FLAMMABLE LIQUIDS & GASES:
gasoline, oils, paint,
lacquer and tar



CLASS C FIRES INVOLVING
LIVE ELECTRICAL
EQUIPMENT



CLASS D COMBUSTIBLE METALS
OR
COMBUSTIBLE METAL ALLOYS
(NO picture symbol)



CLASS K FIRES IN COOKING APPLIANCES
THAT INVOLVE COMBUSTIBLE
COOKING MEDIA
vegetable or animal oils and fats



TYPES OF EXTINGUISHERS

CLASS A



CLASS A:B



CLASS A:B:C



CLASS A:C



CLASS B:C



CLASS D



CLASS A:K





HOW TO USE FIRE EXTINGUISHERS

CALL FOR HELP IF FIRE IS SERIOUS/LARGE
CHECK OWN SAFETY BEFORE EXTINGUISHING FIRE

ASSESS THE FIRE

CHECK TYPE OF EXTINGUISHER

READY THE FIRE EXTINGUISHER

AIM FOR BASE OF FIRE

USE P.A.S.S. METHOD

TEND TO AREA AFTER SUCCESSFULLY PUTTING OUT FIRE
BUY NEW EXTINGUISHER/ REFILL AND **SERVICE OLD** FIRE EXTINGUISHER

P

PULL

**SAFETY PIN FROM
HANDLE**

A

AIM

**AT BASE OF
FIRE, NOT AT
FLAMES**

S

SQUEEZE

**HANDLE SLOWLY
TO DISCHARGE
AGENT**

S

SWEEP

**SIDE TO SIDE
15CM FROM FIRE**

TIPS FOR FIRE EXTINGUISHERS

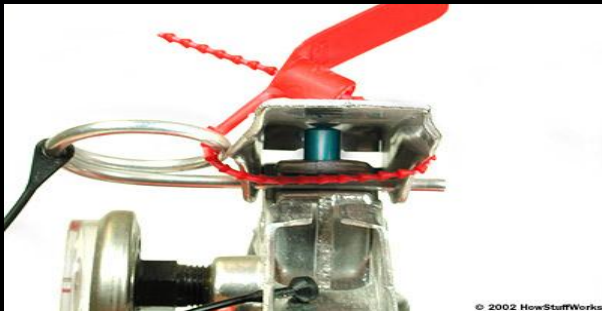
REPLACE EXTINGUISHER IF IT NEEDS RECHARGING OR IS DAMAGED

SERVICE EXTINGUISHERS EVERY 6 MONTHS

NEEDS TO BE REGULARLY CHECKED

PRESSURE TEST THE EXTINGUISHER AFTER A FEW YEARS TO ENSURE CYLINDER IS SAFE TO USE.

SHAKE DRY CHEMICAL EXTINGUISHERS ONCE A MONTH TO PREVENT POWDER FROM SETTLING/PACKING



FIRST AID AND CHEMICAL EXPOSURE

IF A CHEMICAL SPLASHES INTO/ONTO YOUR:

EYES



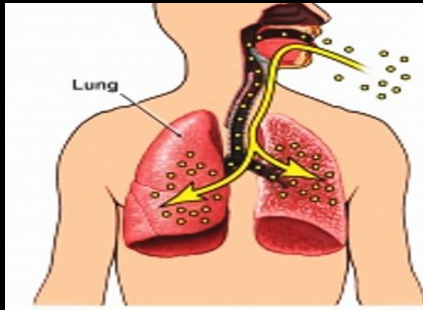
FLUSH WITH WATER FOR 15 MIN. GO TO EYE WASH STATION. HOLD EYES OPEN AND FLUSH EYES

SKIN



IMMEDIATELY WASH AREA WITH SOAP & WATER TO REMOVE CHEMICAL ASAP. REMOVE CLOTHING THAT WAS SPLASHED AS IT CAN CAUSE FURTHER DAMAGE

INHALATION (LUNGS)



**RECOGNISE SIGN:
DIZZINESS, NAUSEA, UPSET
STOMACH
GO TO FRESH AIR QUICKLY
SIT OR LIE DOWN**

SWALLOWING (INGESTION)



**REFER TO MSDS/ LABEL IF
AVAILABLE
DRINK MILK/WATER
DO NOT INDUCE VOMITING**

SEEK MEDICAL HELP IF :

A **CHEMICAL** HAS COME INTO **CONTACT WITH EYES, NOSE, MOUTH**
THE MATERIAL SAFETY DATA SHEET CALLS CHEMICAL HAZARDOUS/ LIKELY TO CAUSE
DAMAGE
CONTAINER LABEL WARNS OF CORROSIVE CONTENTS (CAN WEAR AWAY SKIN)
CHEMICAL CAUSES **LARGE BURN**
THERE IS **DIFFICULTY BREATHING** AFTER EXPOSURE.



WHILE YOU WAIT FOR HELP :

**REASSURE CONSCIOUS VICTIM
RESCUE BREATHING/ PERFORM CPR
KEEP AIRWAY OPEN
RECOVERY POSITION-ON SIDE
RECORD DETAILS & SIGNS**





ONLINE ASSESSMENT



You have completed the course!

Please proceed to the final assessment

**You are welcome to download the learning material to assist
with your assessment**