

CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT IN IRELAND

PRINCIPAL MARKER'S REPORT FORM

DANGEROUS GOODS SAFETY ADVISER EXAMINATION

SUBJECT: PAPER 1

EXAMINATION DATE: 3rd March 2020

PART TWO – COMMENTS MAY BE CIRCULATED

No Attempting Examination:	64
No Passing Examination:	56
% Pass Rate:	87.50%
Average Mark	39.97

A. General Comments

- This was the fourth diet of exams to be based on the new examination system with two papers per diet only. The pass rate is up significantly from the last diet and there is an approximately two point increase in the average mark, all very pleasing.
- Congratulations to the three candidate who scored 100%.
- Nevertheless yet again I have to remind candidates that they should take account of Special Provision (SP) 274 when this applies to Proper Shipping Names needed to answer questions and (a) not to neglect this SP when it applies including giving all the references for this SP as I have explained in the past.
- I continue to stress that where classification questions are concerned, I want to see that candidates can handle the data presented in this kind of question. Reading off from the Dangerous Goods List alone, as some try, will always cause marks to be lost.

B. Comments on Individual Questions

Please make comments as appropriate for each question.

- Q1.** This was a two-part classification question. The first part concerned the classification of water based substance containing two active ingredients, a chemical from the ketone family and another from the alcohol family. Most managed to work out the correct class, classification code and Packing Group (PG) of the substance from the data provided though I would have preferred candidates to show more evidence of how they used the data in the question to arrive at their Packing Group decision. 42% of candidates did not show how they had handled the data to reach their PG decision.

A few candidates looked up both substances in the Dangerous Goods List and said that as both were in Packing Group II, the solution must therefore be in PG II, an incorrect approach, of course.

A few other candidates thought that the packing group should be PG I but there was nothing in the question to indicate that the flashpoint temperature was <23°C.

In the second part, candidates were asked to select a suitable Proper Shipping Name and UN number. There was only one choice all things considered, UN 1993, FLAMABLE LIQUID, N.O.S. (.....alcohol and....ketone). I will refrain from naming the two

ingredients in full if you don't mind. This is a Proper Shipping Name to which SP 274 applies and is therefore incomplete until the rules in 3.1.2.8.1 of Chapter 3.1 to which SP 274 leads you. I expect candidates automatically to look to see if SP 274 applies without being warned about it in the question. 50% of candidates failed to do this, either to do what it requires or to mention that SP 274 applies or both.

22% of candidates chose the UN number 1224. Wrong, of course, because this can only be used for a ketone or if a mixture a family of ketones. We have an alcohol and a ketone as I say. A further 9% of candidates chose UN 1245 which was similarly not appropriate to the mixture.

Q2. This was another question a three part question. In the first part, candidates were asked to determine the minimum number of inner packagings that would be required for a consignment of two substances, one a solid and one a liquid. It required candidates to determine the two mixed packing codes which applied to the substances, in this case MP14 and MP15. I am pleased to say that a goodly number of candidates got this right, that if you applied the quantity limits per inner packaging in each of these, the number required was six.

Just one candidate managed to pick the wrong UN number for one of the two substances which then led to the wrong MP whilst just one other candidate picked the wrong UN number in the first place for one of the substances which in turn led to the wrong MP.

In the second part, candidates were asked to state a further condition upon which the mixed packing could take place. The statement I was looking for occurs in both the MPs i.e. providing they do not react dangerously with each other which, for me, is an incredibly important rule. A few said that they could be packed with non-ADR goods but that was not what the question was about. It was about the two substances in the question so that referring to this was erroneous (though I accept such words are in both MPs).

In the third part candidates were asked to say what marking and labelling of the outer box containing the inner packages would be needed. Candidates were asked to "Give your answer as fully as you can. Eight marks were available for this third part so, clearly, a substantial and detailed answer was required to gain all these.

It was mentioned in the question that one of the substances was an aquatic pollutant, dangerous for the environment. A hint was given concerning this substance – the relatively small inner packagings which would be used. The hint was to the second indent in 5.2.18.1 where it says that “ or inner packagings of such combination packagings have:

- A quantity of 5 l or less”

What this means is that the Environmentally Hazardous Substance (EHS) mark is not needed on the outer box no matter how many individual inner packages are in side which meet this limit. Candidates were expected to work out that the EHS mark was *not* therefore required. 67% of candidates missed this point and either said the EHS mark is needed or could not even address the issue in their answers.

It was also incumbent on candidates to address the issue of whether the double arrow orientation mark was needed on the outer box. Most candidates said it was needed but I wanted them to justify this action by saying quite clearly that not only was one of the substances a liquid, but more importantly which of the two was that liquid. 55% of candidates did not do this i.e. say exactly which was the liquid substance which triggered the application of this mark on two sides of the box. There are a number of ways in which it can be deduced that one of the substances is a liquid but the best answer is to look at the ADR Classification Codes for each one which tell you which one is a liquid and which one is a solid.

A few candidates who thought this through thought it was the other substance which was the liquid.

The outer box needed to be marked with both of the UN numbers. Some only mentioned that one of these was needed.

One person tried to use the Table of Precedence to eliminate the need to mark and label for one of the two substances. Not appropriate at all as this is for when you have a substance with two dangers or more for transport, not two separate substances each with just one transport danger.

Q3. This question was about the variation of the Class 9 label for lithium batteries. I wanted candidates to say the No. 9A label is specifically for lithium batteries etc. If this word did not appear in their answers, candidates lost marks.

Q4. This was a two part question. In the first part, candidates were asked to say why despite the relatively small quantity of the substance to be transported it needed to be transported in UN certified packagings. It is a substance of Packing Group I for which there are no Limited Quantities (or even Excepted Quantities) allowances so that the substance had to be transported in UN certified packagings. Most candidates got this right though 8% could not attempt it whilst two more attempted an answer via the Transport Category of the substance.

The second part was an extensive question about overpacks and the marking and labelling of them. In the question it said that there was a pallet of the aforementioned substance wrapped in black plastic film (increasingly popular these days) upon which the UN number had been affixed but no other transport marks or labels. Candidates' answers had to include:

- No, the marking and labelling was insufficient
- That the word OVERPACK had to be marked on the film
- That this word needed to be in Italian
- That this word also needed to be in one of either English, French or German
- That the word OVERPACK had to be written in letters at least 12 mm high
- That a number eight corrosive label had to be added six details in total.

Candidates were asked to "Explain your answer as fully as you can, giving any relevant dimensions for any *marking* of the pallet which you consider necessary.

26.5% of candidates did not tell me that a number eight class label was needed.

39% of candidates were not specific enough about the languages for the word OVERPACK in that they did not actually say the language of the forwarding country i.e. Italian. This was wanted for full marks.

28% of candidates did not state that one of three other languages were required. These are, incidentally, the three languages in which the official text of the treaty called the ADR are written in. The books candidates use are officially only copies of the treaty, the original documents being held in the treaties section of the UN at its headquarters in New York.

Some candidates gave me the dimensions of the class label whereas they were only asked for the dimensions of any relevant additional marking so that these dimensions were not necessary to answer the question. Please can candidates get a grip of the difference in dangerous goods transport law between a “mark” and a “label” (and as we shall see in my report for Paper 2, the difference between a “label” and a “placard”).

One candidate even went so far as to suggest that the HIN number was required on the pallet and a few more that the double arrow orientation mark was needed even though the substance in the question is a solid, as can be determined, of course, from its Classification Code

Q5. This was a two mark question to do with class 7. In the first part a definition was asked for which could be found at 2.2.7.2.2.1. A few candidates went for the definition of “radioactive contents” which you can find in Chapter 1.2 which was not quite what was asked for.

In the second part, candidates were asked for the activity concentration of a specific radioactive material for *exempt material*. Most got it right but a few gave the A₁ value or the value for an exempt consignment which were not what was asked for.

Q6. Candidates were asked state the Proper Shipping Name and UN number of some blood samples from a doctor’s surgery. Most got it right though one person thought it was UN 3291 instead of UN 3373 and a few more thought the samples were Class 6.2, Category A instead of Category B.

Q7. This question was about the restrictions on passengers on vehicles carrying dangerous goods. Virtually everyone got it right including the reference for this in Chapter 8.3

In the second part, candidates were expected to realise that they needed to look at the

Q8. This was a question about the fixed penalty which can be imposed through the CDGR for a particular offence. Most candidates got the offence number cored (No. 48) and the penalty which goes with it, €250.

Q9. The final question concerned the training requirements of the ADR as set out in Chapter 1.3. This chapter basically says that anyone who comes under the heading of any of the

participants in the transport chain named in Chapter 1.4 must have the training. Key to answering this question correctly was that candidates identified that loaders are specifically mentioned in Chapter 1.4 and are therefore covered by Chapter 1.3. A copious number of candidates (72%) failed to make this connection.

Further 33% of candidates appealed to 8.2.3 of Chapter 8.2 of the ADR as the source of their answer. This, though an important paragraph about the training of drivers as the whole of Chapter 8.2 is devoted to the training of drivers either above the thresholds for needing to hold a vocational training certificate in dangerous goods or below these thresholds, 8.2.3 was not relevant to the question.

I do wonder sometimes how much attention candidates pay to studying the safety duties of the participants in the supply chain named in Chapter 1.4? The provisions are terrifying, I always think.

As far as mandatory training of staff is concerned, who would agree with me that the training needs set out in the ADR start with the Board of Directors, the CEO and all other senior managers at least to the extent that they are made aware of the onerous and complex nature of the requirements of the ADR and comparable regulations for the other modes of transport. Should these at the very least have some awareness training to understand the management system they need to put in place to achieve the safe transport of dangerous goods and to achieve full compliance?

C. Comments on Candidates' Performance (include identification of any gaps in knowledge\areas of weakness)

Any comments appear above.

D. Comments on the Marking Process

None.

SIGNATURE: DATE: 26.03.2020

Paper1report/
dgsa