

State-of-the-art Recognition and Need Analysis;

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A. PERSONAL INFORMATION ABOUT THE RESPONDENTS OF THE CHEMIPPR QUESTIONNAIRE

We have tried to find our shortcomings by applying the questionnaire at 04.05.2016 to 32 employees of our company. The questionnaire was applied to our employees of which 40% workers, 25% engineers and technical staff and 25% personnel in manager positions. The ages of the participants vary between 31-40 for 45%, 41-50 for 25% and 21% of them is female.

The distribution according to position of frequency of correct answer is;

- The success rate of the managers is high for the questions 0-5/36-40 and 61-65, and it is low for the questions 11-15 and 41-45.
- The success rate of the engineers is high for the questions 0-5/36-40 and 61-65, and it is low for the questions 11-15 / 41-45 and 51-55.
- The success rate of the technical person is high for the questions 36-40 and 65-70, and it is low for the questions 6-10 / 11-15 and 41-45.
- The success rate of the labor is high for the questions 21-25 / 61-65 and 65-70, and it is low for the questions 6-10 / 11-15 and 41-45.

B. FINDING OUT THE KNOWLEDGE/OPINIONS OF THE QUESTIONNAIRE RESPONDENTS ON CHEMIPPR

B.1. Risk Analysis

The success rate of the participants under this part is 56,7%.

It was seen that the participants have the knowledge of the chemicals which they use and produce in KARDEMİR and the highest success rate of 87,5% is for 5th question.

On the matter of the use of MSDS belonging to chemicals in questions 6 and 7, the success rates were 56,3% and 53,1%, respectively. It was understood that the participants require a training to read and use the MSDS.

The lowest success rate of 28,1% was seen on 8th question. It was concluded that the regulation knowledge on the risk assessment of the chemicals is insufficient.

B.2. Risk Assessment

The questions under this part did not have multiple choiced, the participants could not understand them clearly.

Since the participants only replied as “yes” or “no”, the level of knowledge of the participants could not be concluded and we considered the answers to the questions as a wrong.

As a result, the participants were evaluated as to be trained on the matter.

B.3. Risk Management

The general rate of success of the participants under this part is 43,4%.

The lowest rate of successes were seen on questions 17 and 18 (28,13% and 18,8%, respectively) which were on SEVESO III Directive that is not transposed into our registration, so the rate is low.

Since the choices in question 15 were very close to each other, the participants could not understand the question, so the rate is just 18,8%.

The highest rate of success was in question 20 about SEVESO II directive it means that Seveso II were accepted by our participants.

In case, if there is any national regulation revisioned about SEVESO III Directive in the country in coming years, the trainings will be held in our company.

B.4. Prevention

The general rate of success of the participants under this part is 65,6%.

Despite for the 21,22,23 questions not have the multiple choices (its success rate %81,25 ; %84,37;% 93,75 respectively), these questions which can measure the knowledge exactly, were understood by the participants and it was seen that participants have enough knowledge on Emergency situations.

On question 24 with low success rate, the participants prefer to “protection of people from the risky field” at first, instead of eliminating the risk.

The training is required to raise the knowledge of our workers on prevention in case of any emergency state.

B.5. Response

The general rate of success of the participants under this part is 39%.

The lowest rate of success in this part is 15,6% for the question 29. The reason why the success rate is so low is that the right answer includes a few options but the participants chose only some of the right responses instead of all.

As it was commented in prevention part, the training is required to raise the knowledge of our workers on response in case of any contingency.

B.6. Safety Rules

The success rate of the participants were high under this part and they have the sufficient knowledge on this matter.

B.7. Regulations

General success rate of the participants is 36,5%.

The questions 34 and 41 were related with SEVESO III Directive and the success rates are low since it was not transposed into the our national regulation.

It was seen on question 35 that the participants do not have enough knowledge on REACH application.

The question 33 was about MSDS and since it is a multi-choice question, the participants did not choose the right options fully.

The question 37 with the highest success rate indicated that the participants recognize the chemical symbols.

It was concluded that the participants have a low rate of success on registration, so their knowledge should be increased.

B.8. Chemical Accidents

It was seen that the success rate under this part is 8,8%.

Since the questions are prepared with methods (FTA, BAYESIAN, FMEA) which are different than the one to be used in our company (Matrix), the rate of success is low.

B.9. Health

The success rate is 66,9% and the participants have enough information on the matter.

B.10. Environmental

The average success rate is 16,25% on Environmental part indicated that the participants are not sufficiently knowledge on this matter and it is required to be risen.

B.11. Classification

The general rate of success under this part is 55%.

Participants have not sufficiently knowledge about MSDS is also seen on question 59 having the success rate of 22%.

The question 60 is a specific question and the success rate is low since the participants ticked the risk instead of the danger, as the options were very close.

It was seen that the pictures and movies in training modules are more effective on the participants according to the question 62.

B.12. Precaution

The general rate of success under this part is 53,8%.

It was commented that the participants could not understand the questions 65 and 66 well.

B.13. Implementation

The general rate of success under this part is 78% that is high.

C. CONCLUSIONS

- 1-The lowest success rate is 0,8% under the part of Risk Assessment.
- 2-The highest success rate is 82,3% under the heading of Safety Rules.
- 3-It was seen that the pictures and movies in training modules are more effective on the participants according to the question 62.
- 4-The lowest success rate is seen on questions 9,10,11,34 and 44. (%0)
- 5-It was understood that the participants require a training to read and use the MSDS
- 6-The participants are not sufficiently knowledge on Environmental and it is required to be risen.
- 7-The participants need to be trained on different risk determination methods (FTA, BAYESIAN, FMEA) on chemical accidents.
- 8- The participants have a low rate of success on registration for the chemicals management, so their knowledge should be increased.
- 9-The training is required to raise the knowledge of our workers on response in case of any contingency.
- 10-The participants are in need of training for the risk assessment.

D. REFERENCES

1. 26.12.2008 date and published in the Official Gazette numbered 27092 "Classification of Hazardous Substances and Preparations Regulations on Packaging and Labelling (is Abrogated)
2. 11.12.2014 date and published in the Official Gazette No. 28 848 "Classification of substances and mixtures, Labelling and Packaging Regulation on"
3. 26.12.2008 date and 27092 numbered Official Gazette "Regulation on chemicals and Inventory Control Rights to"
4. 13.12.2014 date and published in the Official Gazette No. 29204 "Safety Data Sheet on the Regulation on Hazardous Substances and Mixtures"
5. 24.10.2013 date and published in the Official Gazette numbered 28801 "Regulations on the Transport of Dangerous Goods by Road"
6. 30.12.2013 date and 28867 numbered Official Gazette "Great for the Prevention of Industrial Accidents and the Regulations on Mitigation of Impacts"
7. European Commission 1272/2008 / EC CLP Regulations
8. <http://echa.europa.eu>