

General Instructions

Please read this extract from the Regulations of the Grand Prix Chimique referring to the specific behavioural and safety rules that must be obeyed to prevent accidents.

Regulations of the Grand Prix Chimique

Delegations

- (1) *Each participating country's delegation can consist of a maximum of three competitors and one mentor who becomes the head of the delegation. The final number of competitors is determined by the organiser. Moreover, a country that is invited to attend may send a maximum of two accompanying persons as observers.*
- (2) *The competitors must conform to the following criteria: They*
 - a. *must be students who attend or have just finished any vocational school with a chemical orientation.*
 - b. *must not have finished their first semester at a university or similar technical high school with a chemical orientation.*
 - c. *must be younger than 23 years of age at the first day of the competition.*
 - d. *must not be professionally employed with chemical tasks after completed vocational training.*
 - e. *must be passport holders of the country they represent or they must have taken part in the vocational school educational system of this country for more than one year.*
 - f. *have to be selected on the basis of a national competition.*
- (3) *All members of a delegation must provide themselves with medical insurance for the journey to / and from the organising country and the stay in the country.*
- (4) *The mentor*
 - a. *is responsible for the fulfilment of those conditions given in sections 2 and 3 of this paragraph.*
 - b. *must translate, if necessary, the text of the competition tasks from English into the mother tongue of her/ his students or a language understandable to the students, and be able to judge the set of tasks, evaluate and correct the work of the students.*
 - c. *takes part in the work of the International Jury.*
 - d. *has the right to enter a protest which should be addressed to the Chair of the International Jury.*

Organisation of the GPCh competition

- (1) *Preceding the competition the organizer is obliged to distribute to all participating countries a list of laboratory techniques and methods which, taking into consideration also the levels of previous GPCh competitions, will be used in the forthcoming competition so that students can get a good idea of the type and difficulty of the competition tasks, including safety aspects and criteria according to which laboratory skills and precision of work will be evaluated.*
- (2) *The competition consists of solving at least two laboratory tasks (classic and instrumental analysis, preparative tasks). A working time of sixteen hours maximum is allotted altogether for the whole competition. The laboratory work can be organised in two or three days.*
- (3) *The text of the tasks is to be distributed to all members of the International Jury at the beginning of the competition. However, there must be no contact between mentors and competitors once the mentors received the competition tasks for consideration. No information about the competition tasks must be passed to the competitors directly or indirectly prior to and during the competition.*
- (4) *The head of the delegation decides on the language in which his competitors receive all the relevant information and are allowed to write their solutions.*

- (5) Only non-programmable pocket calculators may be used for the solving of the tasks.
- (6) The safety regulations announced by the organiser are binding for all participants and those who enter chemical laboratories.
- (7) Breaking of any rules given in the preceding paragraphs may lead to the exclusion from the entire competition or part of the competition.

Safety

- (1) When working in the laboratory the competitors must wear laboratory coats and eye protection. The competitors are expected to bring their own laboratory coats. Other means of protection for laboratory work are provided by the organiser, if necessary.
- (2) When handling liquids, each student must be provided with a pipette bulb or filler. Pipetting by mouth is strictly prohibited.
- (3) The use of very toxic substances (designation T+) is strictly prohibited. The use of toxic substances (designation T) is not recommended, but may be allowed if special precautions are taken. Substances belonging to the categories R 45, R 46, and R 47 must not be used under any circumstances.
- (4) The mentors must receive the necessary safety requirements from the organiser so that they have time enough to instruct their participants properly in advance. At the beginning of the competition the participants will be required to sign a statement that they have been instructed about the safety rules.

Competition Tasks

- (1) The organiser is responsible for the preparation of competition tasks by competent experts. They propose the methods of solution and the marking scheme.
- (2) The tasks, their solution, and the marking schemes are submitted to the International Jury for consideration and approval. The authors of the tasks should be present during the discussion. The criteria for the subjective evaluation of laboratory skill and precision of work must be explained and discussed in detail, agreed upon, and accepted by all referees.
- (3) The total length of the instructions for the experiments must not exceed 20.000 characters. SI symbols and units must be used throughout.
- (4) In the experimental tasks of the competition the following conditions must be fulfilled:
 - a. Competitors may ask for an original English version of the tasks if they find it helpful.
 - b. All competitors must receive the same unknown sample when solving the tasks from qualitative analytical chemistry.
 - c. When solving tasks from quantitative analytical chemistry the competitors must receive the same sample but with different concentrations of substances.
 - d. In evaluating the quantitative tasks the master values must not be based on average results of the competitors.
 - e. In quantitative tasks, the great majority of the grade must be given to the results as reported by the competitors as well as to the corresponding equations, calculations, or explanations directly related to the work. In the preparative work, however, laboratory skill and work is emphasised. A proposal for the distribution of points is given by the author of the competition task.

Correcting and Marking

- (1) *A number of points allocated to particular parts of the competition task are proposed by the authors who must take into account that the points for experimental records of the competitors cannot exceed 5%.*
- (2) *The skill of competitors at their laboratory work is judged and marked independently by two referees according to precise and unambiguous criteria. One of the referees is a member of the International Jury (mentor), the other one is nominated by the organiser. The two referees must agree on the final score. A mentor cannot judge the laboratory skill of their own students. The organiser proposes the criteria for creating the referee-teams and the way how to assign them to particular competitors. The above criteria and procedure must be approved by the International Jury.*
- (3) *The solutions of the competition tasks recorded by competitors are corrected independently by the authors of the tasks and by the mentors. Consequential marking should be used so that students are not punished twice for the same error. Both corrections are then compared. After a discussion the final score for each participant is reached and agreed upon by both sides. The organiser retains the originals of the marked manuscripts.*
- (4) *The International Jury discusses the results and decides on the final scores.*
- (5) *In order to eliminate any doubts about possible mistakes in the processing of the results the organiser must provide the mentors with a list of their students' total results before the awarding ceremony.*

Results and Prizes

- (1) *Official results of the competition and the number of medals / prizes awarded are decided by the International Jury.*
- (2) *The number of medals / prizes awarded cannot exceed 25% of the whole number of participants. The exact number of medals / prizes is decided on the basis of an anonymous review of the results.*
- (3) *Every medallist must receive a medal and a corresponding certificate from the organiser.*
- (4) *In addition to medals other prizes may be awarded.*
- (5) *All competitors and mentors receive certificates of participation.*
- (6) *In the awarding ceremony, the non-medallists are called in alphabetical order.*
- (7) *No team ranking takes place.*
- (8) *The organiser must provide a complete list of results as part of the final report.*

Final regulations

- (1) *Those who take part in the competition acknowledge these regulations through their very participation.*
- (2) *These regulations will be applied to the 10th Grand Prix Chimique in Ellwangen (Germany) 2009.*
- (3) *The regulations are valid from November 1, 2003.*