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P108. THE NAME OF DANGER IN UNDERGROUND MINING: CARBON MONOXIDE POISONING

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Mine accidents in our country, as all over the world, constitutes a significant part of industrial accidents. The mining industry is the most difficult and risky line of work due to its particular nature, and the fact that it contains a large number of interconnected risks which trigger each other as a chaining in case of any adverse events. So, in order to minimize these risks, a large knowledge, experience, expertise and continuous monitoring is required. Carbon monoxide poisoning occurred due to explosion of firedamp (methane gas + air mixture) takes place at the top of the occupational accidents from which suffer the employees of this line of work.

Carbon monoxide is an extremely poisonous, colorless, odorless and flammable gas. Due to the fact that the ability of Carbon monoxide to combine with hemoglobin is 200 times more than the ability of oxygen, hemoglobin combines with carbon monoxide instead of oxygen and creates carboxy-hemoglobin when such gas is found in the environment. Carboxyhemoglobin (COHb) causes the reduction of the oxygen amount transported to the tissues. The organs most affected by hypoxia are the organs having the most metabolic activity.

This study is made in order to contribute to the studies about carbon monoxide poisoning they experienced in underground mining and accidents occurring in mining sector and for the prevention of these accidents.