



TOXIC SUBSTANCES IN THE AIR «OZONE DIOXIDE»

TEAM RED FROM TURKEY

OXONE DIOXIDE «GENERAL INFORMATION»

- ▶ Ozone dioxide is a chemical compound with the formula NO_2 . It is one of several nitrogen oxides. NO_2 is an intermediate in the industrial synthesis of nitric acid, millions of tons of which are produced each year for use primarily in the production of fertilizers. At higher temperatures it is a reddish-brown gas. Ozone dioxide is a strong oxidizing agent, it reacts with air with water vapor to form corrosive nitric acid as well as toxic organic nitrates. In this case, it causes the formation of acid rain that causes the death of trees, fish and animal life. NO_2 also plays a major role in atmospheric reactions that lead to soil-level ozone and smog.

THE DANGERS OF OZONE DIOXIDE TO HUMAN HEALTH

- ▶ Ozone dioxide is a very toxic gas, so it is difficult to detect at low concentrations. As a result of inhaling this gas, symptoms such as headache and dizziness occur.
- ▶ Ozone dioxide is directly harmful to humans as it turns into acid in the lungs when polluted air is inhaled. The main physiological damage it causes is swallowing the spongy structure of the lung. When the bronchial tubes are filled with them, the lung loses its ability to absorb oxygen from the air and less oxygen passes into the blood.

ENVIRONMENTAL HAZARDS OF OZONE DIOXIDE

- ▶ The burning of fossil fuels, namely gas, coal and oil, occurs. Thus, in the waste gases of vehicles and with the burning of the gas and coal used for heating, this gas is released to the nature.
- ▶ Ozone dioxide causes acid rains. When acid rains falls into lakes and rivers, the acidity of the waters increases. This situation harms the lives living in those waters. Our historical and natural works can be damaged. It prevents the plants from feeding from the soil by causing the mineral content of the soil to decrease.