

# INFORMATION TO THE PUBLIC

## on security measures at TKI Hrastnik, d.d.

TKI Hrastnik, d.d. as an operator of a facility with a greater risk to the environment, in accordance with the Regulation on the prevention of major accidents and the reduction of their consequences (Official gazette of the RS, no. 22/16), has issued a public information notice on the dangers of major accidents and on safety measures (<https://tki.si>).

The awareness that accidents can happen is a constant of the daily work in the production of chlor-alkali electrolysis and in other parts of the production plant. Therefore, in the company, we take the utmost possible measures as currently known and allowed by the equipment at our disposal. With all our knowledge and the new knowledge that we progressively acquire, we manage the production and other activities pertaining to it, in such a way as to reduce the probability of an accident occurring, the severity or the weight of the consequences of a possible accident, respectively. On 23 March 2016, the company obtained the environmental permit with the number 35492-5/2015-10. We implement safety measures to reduce the risk of an accident in accordance with the safety management system, the Safety Report and the Major Accident Prevention Plan.

### DETAILS OF THE PLANT MANAGER

**Plant manager:** TKI Hrastnik, d.d., Za Savo 6, 1430 Hrastnik.

**Plant location:** Production centre for the chlor-alkali electrolysis, Cesta 1. maja 33, 1430 Hrastnik.

**Person responsible:** Company Chief Executive Officer.

### DESCRIPTION OF THE ACTIVITIES CARRIED OUT IN THE PLANT

The company's activity is the development, production and processing of basic industrial chemicals for chlor-alkali electrolysis and phosphates, as well as the production of special chemicals and the production of consumer products.

### INFORMATION ON HAZARDOUS SUBSTANCES THAT CAN CAUSE A MAJOR ACCIDENT

TKI Hrastnik, d.d. is classified as a high-risk plant due to the large amount of chlorine, which has the following dangerous properties:

- Causes severe eye irritation
- Causes respiratory tract irritation
- Causes skin irritation
- Fatal if inhaled
- Very toxic to aquatic organisms
- Oxidizing substance that may cause or intensify fire

### GENERAL INFORMATION REGARDING THE DANGER OF A MAJOR ACCIDENT

In the event of an emergency chlorine release, a chlorine cloud is formed, which, depending on the direction and strength of the wind, can cover the wider surroundings of the source of the risk.

According to the Safety Report, the risk of a major chlorine release accident is assessed as very unlikely. Due to the extremely low odour threshold (0.02 - 1 ppm), it can be smelled quickly, which greatly reduces the reaction time for the notification of danger. The detection limit concentration of chlorine in the air does not pose a threat to human health.

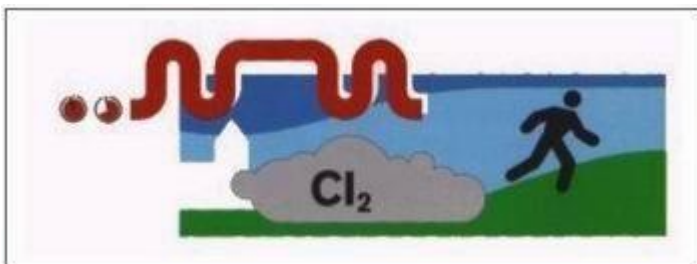
The concentration of chlorine in the air of 20 ppm, which already presents a health hazard, remains limited to the area of the industrial zone between the river Sava and the intersection for Celje in all of the scenarios, as created on the basis of the Hazard and Operability Analysis (HAZOP), the Failure Modes and Effects Analysis (FMEA) or any of the simulations (except in the case of terrorism).

In the event of a terrorist attack (worst case scenario), the chlorine concentration of above 50 ppm with a visible yellow-green cloud would cause a threat in the area within the plant limits and within a radius of up to 2.5 km. In line with the municipal Protection and Rescue Plan, measures are then taken accordingly.

## **NOTIFICATION TO THE PUBLIC IN THE COMPANY'S SURROUNDINGS IN THE EVENT OF A MAJOR ACCIDENT**

In the event of a chlorine release and the spreading of a chlorine cloud, the public in the surroundings of the affected area is alerted. The notification is carried out using the alarm system. The information and the instructions on how to proceed are transmitted via the public media (notably, the local radio station Kum).

In the case of a **CHLORINE IMMEDIATE DANGER alarm** (a 100-second siren alarm: a 30-second siren wail, 40-second single siren sound, and 30-second siren wail), a retreat to higher ground in the opposite direction to the movements of the chlorine cloud should be observed.



## **INSTRUCTIONS FOR APPROPRIATE ACTION IN THE EVENT OF A MAJOR ACCIDENT**

In the event of a major accident, instructions for appropriate action are followed in accordance with the municipal Protection and Rescue Plan. The management of the rescue operation and the appropriate action to take in the event of a chlorine accident are under the responsibility of the civil protection municipal headquarters.

## **MEASURES TAKEN IN THE COMPANY TO PREVENT MAJOR ACCIDENTS AND REDUCE THEIR CONSEQUENCES**

In TKI Hrastnik, d.d. a safety management system is established to prevent major accidents and to reduce their consequences. Any accident risk is recognized and assessed in all activities that could pose a danger to people and the environment. Measures to prevent and control the risk of any major accidents are regularly implemented. A highly qualified industrial rescue unit for chlorine is active within the company, as well as a voluntary industrial fire brigade and the civil defence headquarters. With the aim to prevent major accidents and reduce their consequences, the necessary safety measures and cooperation with all respective stakeholders in rescue operations (such as the local community, the municipal civil defence headquarters, the emergency services, as well as the police, inspection bodies and media representatives) are carried out in the field of safety management.

## **ACTION PLAN IN THE EVENT OF A MAJOR ACCIDENT**

The protection and rescue plan at TKI Hrastnik, d.d, as outlined in the event of a chlorine outbreak, forms a base for the municipal protection and rescue plan.

A brochure - How to protect yourself from chlorine - was issued to the residents of Hrastnik, describing the measures in the event of a chlorine accident, while notice boards marking the evacuation collection points are posted. All relevant information is available from the protection and rescue advisor of the Municipality of Hrastnik. In the event of a major accident, the residents of Hrastnik should follow the instructions of the municipal civil protection headquarters.

## **ADDITIONAL INFORMATION ON SAFETY MEASURES**

The interested public can obtain more detailed information about safety measures at the company's headquarters from the commander of the company's civil protection headquarters and from the head of the industrial rescue unit for chlorine.

### **Contact:**

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