

# Procedures to be carried out at the Port of Sulfuric and Phosphoric Acid Burns

#### **OBJECTIVE:**

This procedure involves operations to be carried out on sulfuric acid and phosphoric acid burns produced in Bagfaş Bandırma Gübre Fabrikaları A.Ş or came with ships

#### **SCOPE:**

The entire port area is responsible and includes employees and ship personnel loading and unloading at the port, and other sub-employers working on the port site

#### **RESPONSIBLE:**

**Maintenance Manager**: Provide necessary control of equipment in emergency situation on the port site and ensure that equipment is deactivated after giving necessary approvals.

# **Employer representative:**

To inform the port authority in case of any explosion in the port area.

## **Ship Master:**

To comply with all instructions regarding safety by the port authority or the coastal facility to which it is docked, to take the necessary precautions in the framework of its own emergency plan.

## **Emergency Coordinator:**

Informs the employer in the event of an explosion or fire and coordinates the work of emergency teams.

#### **Emergency Team:**

It provides the evacuation of the people in the buildings in fire, earthquake and similar disasters, makes the first intervention, participates in the search and rescue and extinguishing works and applies first aid when necessary.

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**Sulphuric acid,** is a very powerful and abrasive acid due to the presence of H2SO4 in the formulation. Metals are able to overcome many different materials that they come into contact with stones and living tissues. Sulphuric acid, which can be easily dissolved in water and other solvents and which allows the very high heat to be released when dissolved in water, is also conducting electricity.

**Phosphoric acid,** is in a crystalline form, is a colourless solid chemical. Phosphoric acid, which is composed of phosphorus, hydrogen and oxygen atoms, H3PO4 is represented by a chemical formula. The aqueous solution, which is consistency, resembles syrup. Salts of this chemical are defined as phosphate. These are two types, food grade phosphoric acid and industrial type phosphoric acid. Phosphoric acid used in the industry is obtained by heating calcium phosphate rock fragments with the aid of sulphuric acid.











#### PHOSPHORIC ACID EXPOSURE CONTROLS AND PERSONAL PROTECTION

# **Personal Protective Equipment**

Depending on the concentration and the amount of the substance used, specially selected protective clothing is used. Resistance to protective clothing is determined by the company.

## Preservation of the respiratory system

When dusts, vapours, aerosols of the material are present, protection of the respiratory system is required. Wear a mask to EN 143 standards.

## Protection of skin and hands

It is always needed. Protective clothing should be used.

## **Eye Protection**

It must always be protected. Mask is used.

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## **Hygiene Controls**

Wash your hands, fingers and wash thoroughly face before eating food, smoke and toilet and after using chemical products and at the end of the working period.

# **Environmental Exposure Controls**

It should not be left around. Prevent product from mixing into sewer.

#### SULPHURIC ACID EXPOSURE CONTROLS AND PERSONAL PROTECTION

## **Respiratory Protection**

Do not inhale the product. Wear a mask according to EN 143 standards.

## **Eye / Face Protection**

Eye / face protection is required. In case of high smoke levels wear safety glasses with side shields in accordance with EN 166.

## **Protection of hands**

Wear neoprene, PVA, butyl or rubber gloves conforming to EN 374. Check the glove before use

## **Skin and Body Protection**

Choose body protection according to the amount and concentration of the hazardous substance at work.

#### **Hygiene Controls**

Wash your hands, fingers and wash thoroughly face before eating food, smoke and toilet and after using chemical products and at the end of the working period.

## **Environmental Exposure Controls**

It should not be left around. Prevent product from mixing into sewer.

- Phosphoric acid and sulphuric acid may result in serious burns in the eyes and on the face.
- In case of eye contact, it causes damage to eyesight loss.
- All employees should wear safety glasses / gloves, acid resistant gloves, face shields and acid gloves before starting work.
- Operating supervisors should not allow employees to work without personal protective equipment.
- In the case of acid splashes, splashed area is washed with water for 15 minutes. In the case of eye splashes, it is washed with eye showers which are in operation, and infirmary

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is given information for the control, and the first intervention is made in the infirmary in a small amount of acid contacts.

- The first aid assistants working in the enterprises make the necessary first aid and the employee who is exposed to acid burns is filled with the relevant job accident notification form and sent to the hospital by ambulance in case of doubt.
- An after-accident report is created so that the event is not repeated after each burn event. Also, near miss forms are filled in by businesses.
- In emergencies DSG annex-005 will be followed under supervision of personnel given under annex-007 emergency situation management scheme. Other personnel will follow annex-006 Emergency muster station plan.

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