Presentation of the Medical Compendium of Toxicological Emergencies and the Manual of Industrial Toxicology of Petróleos Mexicanos

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Vice Direction of Health Services,
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Infrastructure in Occupational Health Services.

- Medical Offices in Refineries: 6
- Medical Offices in Storage and Distribution Terminals: 25
- Medical Offices in Marine Terminals: 4
- Medical Offices in Administrative Buildings: 9
- Medical Offices in Platforms: 101
- Medical Offices in Gas Processing Complexes: 8
- Medical Offices in Petrochemical Complexes: 7
- Medical Offices in Oil Camps: 16
- General Physicians and Specialists in Occupational Medicine in the Preventive Occupational Medical Services: 411
- Emergency Medical Units: 29
All workers in PEMEX.

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Nota: Se consideran a derechohabientes que hayan estado vigentes durante el mes anterior al corte.
Objective of the Medical Compendium of Toxicological Emergencies.

To give practical information to provide a rapid and appropriate medical response in the case of acute intoxication.
Definition of Acute Severe Toxics

- Chemicals that can cause serious immediate biological effects and/or death in workers intoxicated before 24 hours, from initial contact and/or subsequent.
Content of the Medical Compendium of Toxicological Emergencies

- Message.
- Prologue.
- Clinical Toxicological Integration.
- Chemical Name.
- Synonyms.
- Routes of Absorption.
- Clinical Types of Intoxication: Mild, Moderate And Severe.
- First Aid.
- Antidotal Therapy:
  - Antidote Name .
  - Indications.
  - Mechanism of Action .
  - Relative Contraindications.
  - Complications and Adverse Effects.
  - Presentation and Dosage.
- Glossary.
- Bibliography.
Chemical Groups Analyzed in the Medical Compendium.

- **Primary Irritants:**
  - Ammonia.
  - Chlorine.
  - Hydrochloric Acid.
  - Sulfur Dioxid.
  - Sulfuric Acid.

- **Mithocondrial Asphyxiants:**
  - Hydrogen Sulfide.
  - Hydrocyanic Acid.
  - Acrylonitrile.
Chemical Groups Analyzed in the Medical Compendium.

- **Simple Asphyxiants:**
  - Butane.
  - Propane.
  - Propylene.
  - Nitrogen.

- **Caustic Chemicals:**
  - Sodium Hydroxide.
  - Potassium Hydroxide.
Chemical Groups Analyzed in the Medical Compendium

- **Epoxides:**
  - Ethylene Oxide.

- **Aliphatic Amines:**
  - Monoethanolamine.

- **Chemicals blocking the Transport of Oxygen:**
  - Carbon Monoxide.

**Special Chemical:**
- Hydrofluoric Acid (corrosive to skin, toxic to the bones).
Principal Recipients.

- Medical and Paramedical Personnel of Preventive Services of Occupational Medicine in Industrial Facilities.

- Emergency Services in Hospitals, Clinics and Medical Offices of PEMEX.
Objective of the Manual of Industrial Toxicology

- To provide toxicological scientific information to medical personnel on the major biological and clinical effects of the chemicals potentially toxic, used, transported and stored in the Mexican Oil Industry, to give the appropriate medical response in case of acute and chronic intoxications.
Content of the Manual of Industrial Toxicology

• Message
• Prologue
• Index
• General Considerations:
  Toxicogenetics
  Toxicogenomics
  Genetic Polymorphisms

• Particular Considerations: Types of Chronic Damage
  Neoplastic
  Teratogenic
  Reproductive
  Systemic

• List of Chemicals
• Glossary
• Bibliography
List of Chemicals

Hydrocyanic Acid.
Hydrochloric Acid.
Hydrofluoric Acid.
Sulfuric Acid.
Acrylonitrile.
Isopropyl Alcohol.
Anhydrous Ammonia.
List of Chemicals

Asbestos.
Sulfur.
Benzene.
Butane.
Chlorine.
Vinyl Chloride.
Chromium.
Dichloroethane.
List of Chemicals

Diesel.
Sulfur Dioxide.
Commercial Gasoline.
Hexane.
Sodium Hydroxide.
Kerosene.
Mercury.
Methane.
Methanol.
Monoethanolamine.
Carbon Monoxide.
List of Chemicals

Light Naphtha.
Nitrogen.
Ethylene Oxide.
Propane.
Propylene.
Crystalline Silica.
Carbon Tetrachloride.
Toluene.
Arsenic Trioxide.
Xylene.
Content for Each Chemical

- Scientific Name.
- CAS Registry.
- Synonyms.
- Physical and Chemical Properties.
- Routes of Absorption.
- Distribution.
- Biotransformation.
- Excretion.
- Clinical Features in Acute Intoxication.
- Clinical Features in Chronic Intoxication.
- Threshold Limit Values.
- Biological Exposure Indices.
- First Aid.
- Antidotal Treatment (if any).
AMYL NITRITE INHALANT, USP
SODIUM NITRITE
CALCIUM GLUCONATE (2.5%)
Conclusions

Petróleos Mexicanos through the development of its activities and processes involve the use, transport and storage of chemicals potentially toxic, hence the importance of the Medical Compendium of Toxicological Emergencies and the Manual of Industrial Toxicology in order to give the proper response to prevent and control exposure, and in the case of acute or chronic intoxication, to provide the appropriate medical attention.
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