

How to Protect Yourself from HAZMATs in the Oil & Gas Industry

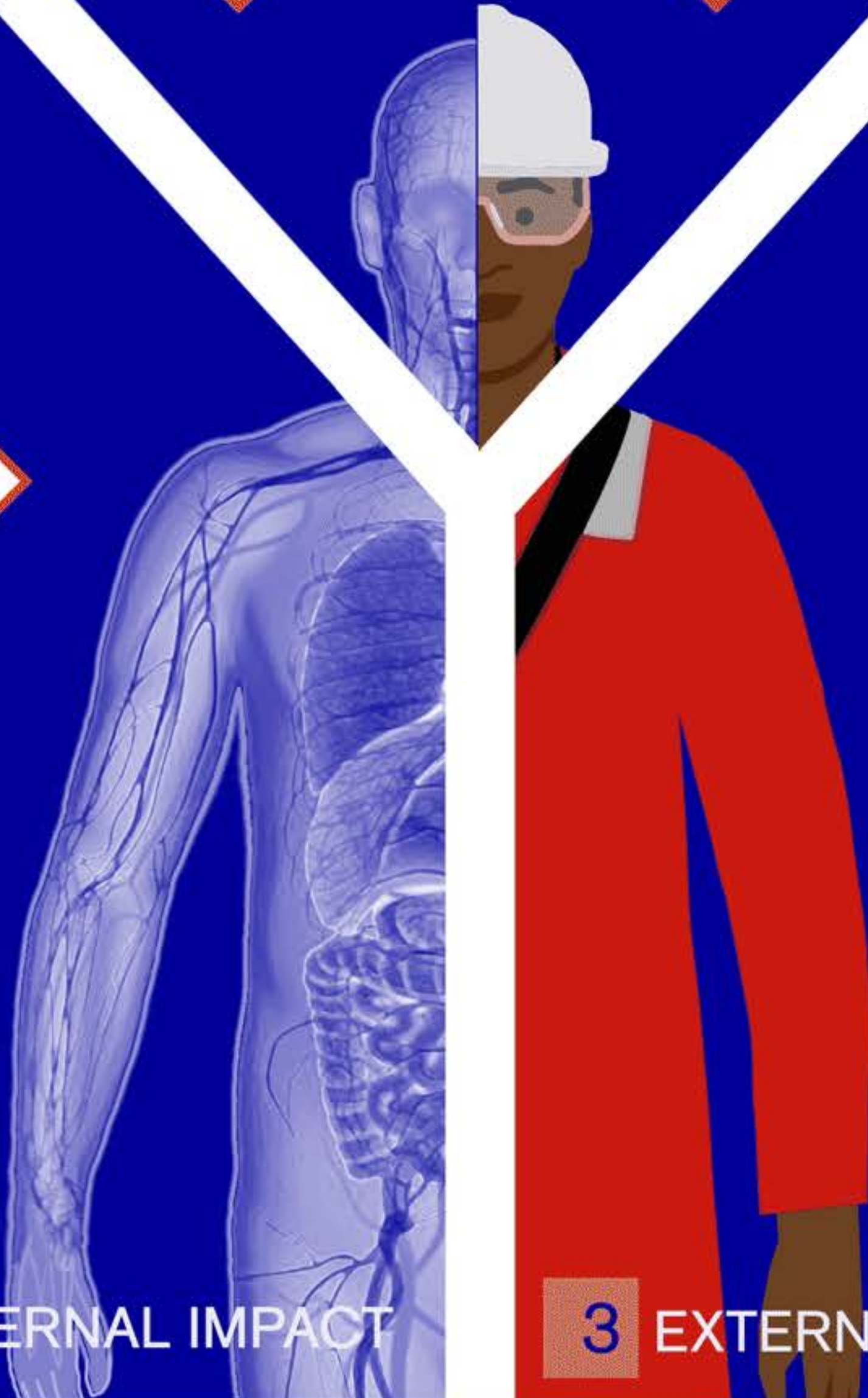
Hazardous materials, commonly called HAZMATs, are dangerous products that are often subject to chemical regulations. HAZMATs can be toxic, pathogenic, allergenic, asphyxiating, flammable, explosive, corrosive, oxidizing or biohazardous, in a solid, liquid or gaseous form. By this they can cause harm to living organisms, the environment or both. To stay safe at work, it is critical to recognize the damage that exposure to different kinds of HAZMATs can cause. All harmful effects HAZMATs can cause the human body can be sorted into three main categories: impact on the consciousness, internal body, and external body.



DID YOU KNOW?

The most typical HAZMAT within the oil and gas industry is sour oil and gas caused by its high amounts of sulfur and hydrogen sulfide (H₂S). Oil and gas is often mixed with highly-flammable hydrocarbons, so there are also additional carcinogenic and toxic risks. The most dangerous on-site jobs include drilling, CSE, leg entry and the preparation of chemical mixtures for drilling fluids.

1 IMPACT ON CONSCIOUSNESS



HAZMAT CATEGORY



Gas Under Pressure



Explosive



Oxidizing



Flammable



Corrosive



Harmful, Toxic or Irritating Substance



Acute Toxicity



Serious Health Hazard



Hazardous to the Environment

EFFECTS ON HUMAN BODY

Escaped gas may be flammable, asphyxiating, or have oxidizing effect and physical injury may be caused by burst containers or cryogenic burns

Physical injuries may be caused by fire, blast or projectiles

Physical injury and harm to respiratory system from smoke inhalation caused by intensified fire or explosion

Unconsciousness, physical injury through an explosion or fire, and harm to respiratory system from smoke inhalation

Attacks and chemically destroys exposed body tissues on contact, can affect skin and eyes and harm the respiratory system when fumes are inhaled

Immediately irritates skin, eye or respiratory tract

Fatal when inhaled, swallowed or comes into contact with skin

Carcinogenicity, respiratory sensitization, mutagenicity, reproductive toxicity, respiratory sensitization, organ toxicity, aspiration toxicity or fatality if swallowed or ingested

Toxic to aquatic life, causes long-lasting effects to the environment that may include water and air

2 INTERNAL IMPACT

3 EXTERNAL IMPACT

THREE RISK LEVELS: DEFINED

TWA

Name: Time-Weighted Average
Exposure Time: Average more than 8 hours/day
Adverse Effect: None

STEL

Name: Short-Term Exposure Limit
Exposure Time: Maximum 15 minutes of continuous exposure
Adverse Effect: None

IDLH

Name: Immediately Dangerous to Life or Health
Exposure Time: 30 minutes escape
Adverse Effect: Immediate or delayed permanent adverse health effect or death