



The Chemical Sector is comprised of owners and operators ranging from manufacturers to distributors—who use, manufacture, store, transport, or deliver potentially dangerous chemicals. Chemicals touch every critical infrastructure sector and impact the lives of Americans every day. Effective security and resilience planning requires a shared commitment between the public and private sectors to implement the most effective risk management strategies throughout the Sector. The Cybersecurity and Infrastructure Security Agency (CISA), which serves as the Chemical Sector Risk Management Agency (SRMA), collaborates with government, private, and public sector partners to develop guidance, resources, and training that support the security and resilience of our Nation's critical chemical facilities. Whether the company is an upstream or downstream provider engaging in the use, manufacturing, storage, transport, or delivery of basic, specialty, agricultural, or consumer product chemicals, the Chemical SRMA is the central point of contact for innovative physical and cyber programs, products, and services that ensure the security and resilience of the chemical industry.

CHEMICAL SECTOR COLLABORATION, RESOURCES, AND TRAINING

CISA offers many resources to assist owners and operators manage risks, improve security, and aid the implementation and execution of protective and response measures across the Chemical Sector. This fact sheet lists a sampling of sector collaboration mechanisms, resources, and training materials. Unless otherwise noted, additional information can be found on the CISA website at cisa.gov/chemical-sector.



Collaboration

Chemical Sector Government Coordinating Council (GCC), Sector Coordinating Council (SCC) represent the public private partnership across the sector; convene regularly; share information; and develop tools, guidelines, and products. Work closely to plan, implement, and execute sector-wide resilience and security programs.

The Chemical Security Summit is the signature U.S. event focused on chemical security collaboration across the public and private sectors that work with potentially dangerous chemicals. Chemical Security

Regional Outreach & Engagement focuses on collaborating with private sector owners and operators as well as state, local, and other government partners to facilitate discussion, information sharing, and networking among stakeholders. CISA Regions | CISA

The Homeland Security Information Network-Critical Infrastructure (HSIN-CI) Chemical Sector Portal allows vetted Chemical Sector partners to effectively collect and distribute security and resilience information for government and private sector partners.

Classified and Unclassified Briefings cleared partners meet quarterly to participate in threat briefings of interest to the sector.



Resources

Playbook for an Effective All-Hazards **Chemical Sector Response, Fifth Edition** December 2022 outlines SRMA management and private sector partners roles and responsibilities in preparing for, responding to, and recovering from allhazards emergencies.

Chemical Sector Cybersecurity Framework Implementation Guidance provides a common language that Chemical Sector owners and operators can use to assess and manage their cybersecurity risks and uses the National Institute of Standards and Technology (NIST) voluntary Framework for Improving Critical Infrastructure Cybersecurity.

Department of Homeland Security (DHS) Sponsored Private Sector Security Clearance Program allows critical infrastructure owners and operators to apply for a secret-level security clearance and share classified information relevant to the security and resilience of the nation's critical infrastructure.

CISA's ChemLock Program provides nocost services and tools to help chemical facilities improve their chemical security posture. ChemLock Resources | CISA

A complete listing of Chemical Resources & Publications can be found at Chemical Sector | CISA and all CISA resources can be accessed at CISA Resources.



Training

Chemical Sector Security Awareness Training foundational voluntary training that provides an overview of security awareness at chemical facilities for private sector stakeholders. Learn more at Chemical Sector Security Awareness Training | CISA.

ChemLock Training live or on-demand training to assist owners, operators, facility personnel, and retailers with understanding chemical threats and security measures. Learn more at ChemLock Training | CISA.

CISA Tabletop Exercise Program (CTEP) series for Chemical Industry Stakeholders features a situation manual and materials to execute an exercise on a variety of topics (e.g., active shooter, improvised explosive devices, unmanned aircraft systems, insider threat, and other scenarios).

Counter-Improvised Explosive Device (IED) Training and Awareness course options include bombing prevention workshops, soft target awareness, and surveillance detection. Counter-Improvised Explosive Device (C-IED) Capabilities Assessments (CCA) Program |

General Security, Safety, and Resilience Webinars are short on-demand webinars produced by CISA for sector partners. Learn more on the Chemical Sector webpage Chemical Sector Training section.















SECTOR PROFILE

The Chemical Sector converts various raw materials into more than 70,000 diverse products that are essential to modern life and distributes those products to more than 750,000 end users throughout the Nation. Several hundred thousand U.S. chemical facilities—ranging from petrochemical manufacturers to chemical distributors—use, manufacture, store, transport, or deliver chemicals along a complex, global supply chain. End users include critical infrastructure sectors and the American public, making the uninterrupted production and transportation of chemicals essential for national and economic security. Most chemical facilities are privately owned and operated and due to their potential health and safety hazards, chemicals must be carefully managed from manufacturing to their use's end.

Functional Areas of the Chemical Sector









Typically consume the

chemical purchased.

Transport Systems

Chemical Industry Components



Basic - Examples include sodium chloride, ethanol, and sulfuric acid.



Specialty - Examples include adhesives. sealants, flavors and fragrances, food additives, and explosives.



Consumer - Examples include soaps, detergents, bleaches, toothpaste, cosmetics, perfume, and paints.



Agricultural - Examples include fertilizers. pesticides, fungicides, insecticides, and herbicides.

SECTOR SECURITY CONSIDERATIONS

- **Insider Threat:** Cyber and physical security systems in the Sector largely prevent damage from outsider threats, but the potential for insiders to intentionally or unintentionally cause harm is a significant concern.
- Cyber Threats: Cyber systems face a variety of risks, including human-made deliberate attacks, technological failures, human error, and supply chain vulnerabilities. Disruptions to these systems could result in theft of intellectual property; loss of operations capacity; or a chemical theft, diversion, or release.
- Natural Disasters and Extreme Weather: All facilities are susceptible to natural disasters and extreme weather. These events can adversely affect facility operations and cause supply chain disruptions through direct damage to facilities or access to critical resources such as transportation, personnel, water, and electricity, etc. The chemical sector has many facilities located in areas across the country which are experiencing an increase in extreme weatherrelated events including hurricanes, winter storms, heat waves, and more.
- Deliberate Attacks and Terrorism: Facilities may be a target for attack or terrorism due to concentration or type of chemicals on site which could cause significant immediate and long-term damage to people and/or surrounding environments. Materials located at facilities may also be a target for theft and diversion.
- Blohazards and Pandemics: With the COVID-19 pandemic having adverse effects on the Chemical Sector, the likelihood of foreign-borne viruses being introduced into the U.S. population is increasing, which may bring pandemics in the future that adversely affect the Sector's workforce, operations, and supply chains.

FOR MORE INFORMATION ON THE CHEMICAL SECTOR

Contact the Chemical Sector Management Team at ChemicalSector@cisa.dhs.gov or learn more at Chemical Sector | Cybersecurity and Infrastructure Security Agency CISA. For additional information about the Chemical Sector, view the Chemical Sector-Specific Plan at Chemical Sector-Specific Plan - 2015 | CISA.





