



# INTRODUCTION TO THE CHEMICAL SECTOR RISK MANAGEMENT AGENCY

Chemical Sector facilities manufacture, store, use, and transport potentially dangerous chemicals. Securing said chemicals against growing and evolving threats requires vigilance from both the private and public sectors. The Cybersecurity and Infrastructure Security Agency (CISA) serves as Sector Risk Management Agency (SRMA) for the Chemical Sector. The SRMA works with companies to develop tools and resources for assessing facility security and resilience. CISA also collaborates with public and private sector partners to ensure that chemical facility owners and operators receive important information about human-made and natural threats and hazards that pose the greatest risk to the 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 Sector SRMA is a central point of contact for innovative physical and cyber programs, products, and services that ensure the security and resilience of the chemical industry.

## CHEMICAL FACILITIES SECTOR COLLABORATION, RESOURCES, AND TRAINING

CISA offers many resources to help 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](https://cisa.gov/chemical-sector).

**Collaboration**

**Chemical Sector Government Coordinating Council (GCC), Sector Coordinating Council (SCC), and Working Groups** convene regularly; share information; and develop tools, guidelines, and products. These groups work closely to plan, implement, and execute sector-wide resilience and security programs within the Chemical Sector.

**The Chemical Sector Security Summit and Seminars** provide an annual forum to exchange security-related information, share best practices, and gain insight into how government partners support chemical security and resilience efforts.

**Regional Outreach** tailored to small- and medium-sized manufacturers addresses region-specific critical issues and needs without concern for travel and budgetary restrictions.

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

**Resources**

**Chemical Sector Publications** include the Sector Landscape, Profile, and Strategic Plan, as well as best practices guides, guidance for tabletop exercises, cybersecurity guidance, and the industrial control systems security awareness campaign.

**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 use the National Institute of Standards and Technology (NIST) voluntary Framework for Improving Critical Infrastructure Cybersecurity.

**Playbook for an Effective All-Hazards Chemical Sector Response, Fourth Edition October 2016** outlines SRMA management roles and responsibilities in preparing for, responding to, and recovering from all-hazards emergencies.

**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.

**Training**

**Critical Infrastructure Training** includes web-based security awareness training opportunities on the topics of workplace security, active shooter, insider threats, surveillance activities, and theft and diversion. Learn more at [cisa.gov/chemical-sector-training](https://cisa.gov/chemical-sector-training).

**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, vehicle-borne improvised explosive devices, unmanned aircraft systems, insider threat, cybersecurity, and other scenarios).

**Counter-Improvised Explosive Device (IED) Training and Awareness** course options include bombing prevention workshops, soft target awareness, and surveillance detection.

**Business Continuity Planning Suite** helps businesses create, improve, or update their business continuity plans with scalable, easy-to-use software. Learn more at [ready.gov/business-continuity-planning-suite](https://ready.gov/business-continuity-planning-suite).

## SECTOR PROFILE

The Chemical Sector converts various raw materials into more than 70,000 diverse products that are essential to modern life. Several hundred thousand U.S. chemical facilities use, manufacture, store, transport, or deliver chemicals along a complex, global supply chain. Facilities range from petrochemical manufactures to chemical distributors. 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. The Sector has a long history of developing a strong culture of safety and applying security risk management strategies outside of regulatory requirements through the collaborative efforts of professional and industry trade associations, individual chemical companies, and national laboratories.

### Functional Areas

#### Manufacturing Plants



Convert raw materials into intermediate and end products.

#### Transport Systems



Transport chemicals to and from manufacturing plants, warehouses, and end users

#### Warehousing/Storage



Provide downsized repacking and storage.

#### End Users



Typically consume the chemical purchased.

### Segments



**Basic** – Examples include sodium chloride, ethanol, and sulfuric acid.



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



**Pharmaceutical** – Examples include medicines, biological products, diagnostic substances, and vitamins.



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



**Agricultural** – Examples include fertilizers, pesticides, fungicides, insecticides, and herbicides.

## CRITICAL INFRASTRUCTURE 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:** Virtually all facilities are susceptible to natural disasters and extreme weather, with many facilities located in hurricane-prone areas. These events cause property damage and may affect access to critical resources, such as water and electricity, which would adversely affect facility operation and may cause supply chain disruptions.
- **Deliberate Attacks and Terrorism:** Facilities may be a target for attack or terrorism because they hold specific chemicals that 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.
- **Biohazards and Pandemics:** The likelihood of foreign-borne viruses being introduced into the U.S. population is increasing, which may bring pandemics that adversely affect the Sector's workforce and operations.

## FOR MORE INFORMATION ON THE CHEMICAL SECTOR

Contact the Chemical Sector Management Team at [ChemicalSector@cisa.dhs.gov](mailto:ChemicalSector@cisa.dhs.gov) or learn more at [cisa.gov/chemical-sector](https://cisa.gov/chemical-sector). For additional information about the Chemical Sector, view the Chemical Sector-Specific Plan at: [cisa.gov/publication/nipp-ssp-chemical-2015](https://cisa.gov/publication/nipp-ssp-chemical-2015).