



CHEMTREC[®]
CONNECT

Guardians **in**
HAZMAT SAFETY

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Guardians in Hazmat Safety:

Learn How CHEMTREC is Fostering Preparedness, Response, and Recovery in the Industry.



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This magazine was designed by:

Aniko Gal

Graphic Designer, CHEMTREC®



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DISCLAIMER

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Investing in Resilience - A Strategic Imperative

By: Chris Scott, Crisis Services Manager, CHEMTREC®

Having dedicated 36 years to the field of crisis and emergency management, I've witnessed the evolution of support for individuals facing tough times. My own experiences have taught me that in the past, advice sought tended to be dismissive and unhelpful, but thankfully, we've progressed. Now, we acknowledge that it's okay to struggle, that our personal resilience levels matter, and that resilience can be cultivated and strengthened.

Personal resilience is an individual's ability to handle, adapt to, and bounce back from stressful situations. Our industry demands that we perform at a high level while facing copious amounts of pressure. This is a difficult ask. While personal resilience training won't remove the amount of stress and pressure we face, it can help us better manage the stress that we experience. The goal of CHEMTREC's personal resilience training program is to help individuals expand their adaptive capacity, overcome stressful situations, grow and develop from difficult experiences, shift perspectives, and harness the power of positivity.

Behind our successful resilience training program lies a tale of dedication, passion, and unexpected turns. Bethany Elliott, our internal organizational psychologist, championed by Chris Scott and Gareth Black at CHEMTREC, began the organic development of resilience courses built upon the success of our psychology of incident command courses, in what felt like a very natural follow on driven by the needs and wants of our clients.

The initial rollout of our courses has been a resounding success, attracting participants from diverse backgrounds and industries. These companies recognize the value of enhancing resilience in their personnel, leading to stronger organizational resilience overall. This starts with



PREPARE

a pre-course resilience assessment to support our initial understanding of the subject and set a baseline for participant resilience levels. Then, we delve into the fascinating aspects of resilience and understand how we can enhance our resilience levels and grow as individuals. A post course assessment 6 months later allows you to track your individual progress and allows your organization to see where the investment in this intervention made its mark within your workforce.

My years of experience would suggest that investing in staff resilience is a strategic imperative for companies seeking to thrive in today's volatile business landscape. By cultivating resilience among employees, organizations can unlock a wealth of benefits that contribute to improved performance, employee engagement, and overall business success. In essence, resilience isn't just a trait, investing in our people provides a powerful catalyst for organizational resilience and growth.

Increasing resilience is such a valuable asset for any company aiming to thrive amidst uncertainty and change. When organizations invest in resilience among their staff, as our feedback from the UK and

USA suggests, it unlocks a multitude of benefits that directly contribute to their success. Investing in resilience helps individuals adapt to new situations and maintain a positive outlook even in the most challenging circumstances. Here's how increasing resilience among staff can profoundly benefit a company and the individuals within through:

- Enhanced Performance
- Reduced Distraction
- Improved Problem-Solving
- Heightened Employee Engagement
- Effective Change Management
- Reduced Turnover and Absenteeism
- Enhanced Team Dynamics
- Greater Customer Satisfaction

We're now really excited to see this important and very topical subject of resilience being rolled out across our industry and others. If you're interested in our resilience courses and the benefits that they can bring to you and your organization, or want to speak to the team, please don't hesitate to reach out to us at crisissolutions@chemtrec.com.



Avoid Shipping Delays: Understanding SDS vs. Lithium Battery Test Summaries

Imagine preparing a shipment of lithium batteries, only to have it delayed because the carrier demands a Safety Data Sheet (SDS) you didn't think was necessary. Frustrating, right? This scenario is becoming all too common in the shipping industry, causing confusion and unnecessary delays. The problem? A mix-up between what an SDS is and when it's actually required versus the specific needs surrounding Lithium Battery Test Summaries (TS). This confusion not only disrupts your operations but can also lead to significant cost overruns.

In this article, we'll clear up the confusion. We'll break down the differences between an SDS and a TS, explaining their specific purposes and when each document is necessary. By the end of this read, you'll know precisely when an SDS is required for lithium batteries and how to prevent unnecessary shipment delays. Plus, we'll show you how having the right partners can help you navigate these requirements smoothly, keeping your operations running efficiently.

UNDERSTANDING SAFETY DATA SHEETS (SDS)

A Safety Data Sheet (SDS) is a critical document that provides detailed information about a substance's safety properties. Think of it as a comprehensive guide that includes everything you need to know about handling a specific chemical or material safely. They include things like:

- **Physical and Chemical Properties:** Describes the substance's characteristics, like appearance, boiling point, and solubility.

- **Potential Hazards:** Identifies risks such as flammability, toxicity, or environmental impact.
- **Safe Handling Procedures:** Provides instructions on how to safely use, store, and dispose of the substance.
- **Emergency Measures:** Outlines steps to take in case of accidental exposure or spills.
- **Regulatory Information:** Lists relevant regulations, helping promote compliance with legal requirements.

SDSs are essential for chemicals and materials that pose physical, health, or environmental risks. They're used by manufacturers, shippers, and safety professionals to promote safe handling and regulatory compliance.

UNDERSTANDING LITHIUM BATTERY TEST SUMMARIES (TS)

Unlike the SDS, a Lithium Battery Test Summary (TS) is a document that specifically relates to the safety testing of lithium batteries. This document focuses on ensuring that the batteries have undergone the necessary safety tests before being shipped. They include things like:

- **Design Testing:** Covers testing required under the UN Manual of Tests and Criteria, Section 38.3. This includes assessments like thermal stability, short circuit testing, and impact resistance.
- **Lab Information and Test Report ID:** Details about the testing lab, including a unique test report ID number to verify the validity of the data.
- **Focus on Safety Testing:** Unlike the SDS, which is broader, the TS is narrowly focused on the safety and performance of lithium batteries.

While an SDS provides general safety information about a substance, the TS focuses on whether lithium batteries meet safety standards. This focus on testing rather than general safety information is crucial to understanding when each document is required.

WHY THE CONFUSION?

The increasing demand for SDSs in lithium battery shipments has caused significant confusion. Many carriers, perhaps out of an abundance of caution, are requesting SDSs even when they may not be necessary.

Some carriers may misinterpret regulations, assuming all lithium battery shipments require an SDS. The mix-up often stems from a misunderstanding of the different roles these documents play, leading to unnecessary requests for documentation.

Unfortunately, this confusion can lead to shipment delays, increased costs, and strained relationships between shippers and carriers. When a shipment is delayed because of an unnecessary SDS request, it disrupts the entire supply chain, causing frustration and financial loss.

WHEN IS AN SDS REQUIRED FOR LITHIUM BATTERIES?

Understanding when an SDS is actually required for lithium batteries can help you avoid these disruptions.

Here's what to know:

- **Article Exemption:** Lithium batteries are often classified as "articles" under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and various regulations such as U.S. OSHA and REACH. As "articles," they may be exempt from SDS requirements if they do not release hazardous chemicals under normal conditions. OSHA has issued a letter of interpretation that states the criteria for the exemption only apply if the lithium batteries meet the definition of a consumer product according to the Consumer Product Safety Act (15 U.S.C 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et. seq.).
- **Conditions for Exemption:** Batteries that do not pose a chemical hazard in typical use are generally exempt from the need for an SDS.

However, this can vary depending on jurisdiction and specific circumstances.

Not all lithium battery shipments require an SDS, especially if they are classified as articles under GHS. Understanding this distinction can prevent unnecessary documentation requests and the delays they cause. With that said, it may make sense to develop a SDS for your batteries to avoid noncompliance and delays when downstream users request them.

EXCELLENT PRACTICES FOR SHIPPERS AND CARRIERS

To avoid these common pitfalls, shippers and carriers should focus on clear documentation and communication:

- **Training:** Proper training is essential. Both shippers and carriers need to be well-versed in the specific documentation requirements for lithium batteries. This includes understanding when an SDS is necessary and when it is not.
- **Documentation Management:** Maintain clear and organized records of all necessary documents, including TS and any relevant SDSs. This helps streamline the shipping process and reduces the likelihood of delays.
- **Proactive Communication:** Encourage open dialogue between shippers and carriers. By clarifying documentation requirements upfront, you can prevent unnecessary requests and keep shipments on schedule.

Partnering with a knowledgeable and reliable resource can make all the difference when implementing these best practices. That's where CHEMTREC comes in.

HOW CHEMTREC CAN HELP

Navigating the complexities of lithium battery shipping doesn't have to be a headache. CHEMTREC offers the comprehensive support you need to cut through the confusion and keep your operations running smoothly.

Comprehensive Support:

- **Document Management:** Our CRITERION service acts as your centralized hub for managing and distributing Lithium Battery Test Summaries (TS), so you have everything you need at your fingertips.
- **Assistance with SDS:** We simplify the preparation and management of SDSs and other crucial documents, like Voluntary Product Information Sheets, helping you avoid unnecessary delays and keep your shipments on track.

Proactive Solutions:

- **Speeding Up Shipments:** By reducing delays caused by documentation issues, we help you get your lithium battery shipments where they need to be faster and with less hassle.
- **Enhancing Safety Awareness:** Our centralized information sources empower you to maintain high safety standards and compliance across your supply chain.

Understanding the differences between Safety Data Sheets (SDS) and Lithium Battery Test Summaries (TS) is crucial for anyone involved in lithium battery shipping. With CHEMTREC by your side, you'll not only grasp these distinctions but also streamline your operations, reduce costly delays, and stay ahead of regulatory demands.

Don't let documentation confusion derail your shipments. Contact CHEMTREC today at sales@chemtrec.com, and let us help you achieve seamless, compliant, and efficient shipping every step of the way.



Understanding the Lifecycle of Lithium Batteries: From Manufacturing to Disposal



When it comes to lithium batteries, even minor oversights can lead to serious incidents, regulatory penalties, and environmental concerns. As a safety professional, you recognize the importance of handling these energy sources with care. This article will guide you through each stage of the lithium battery lifecycle, providing valuable resources to help you manage these challenges effectively, helping your operations remain safe, efficient, and compliant.

THE LIFECYCLE OF LITHIUM BATTERIES

To fully understand the lifecycle of lithium batteries, it's important to closely examine each key phase, from creation to disposal. Let's start at the beginning: the manufacturing process.

Manufacturing Process

The journey of a lithium battery starts with material sourcing, involving the extraction and refinement of essential elements like lithium, cobalt, and nickel. These raw materials must meet strict quality standards to support the battery's performance and longevity. Once sourced, these materials undergo a series of chemical and mechanical processes to create the electrodes, which are critical components that store and transfer energy within the battery.

The production of electrodes involves coating a thin film of active material onto metal foils, which are then rolled or stacked to form the battery cells. This stage requires meticulous attention to detail, as even minor imperfections can lead to significant issues later on, such as reduced battery life or safety risks.

After preparing the electrodes, workers assemble them into cells, and the battery begins to take shape. They fill the cells with electrolyte, seal them, and then subject them to a process called "formation." During formation, the battery is charged and discharged multiple times to stabilize its chemistry and achieve the desired capacity and performance characteristics.

The use of hazardous materials, such as solvents and electrolytes, requires stringent safety protocols to protect workers and the environment. Moreover, supporting product quality at every step is crucial, as defects in manufacturing can lead to performance issues or even catastrophic failures, such as fires or explosions.

Transportation and Storage

Due to the potential hazards associated with lithium batteries, regulations governing their transportation are both stringent and complex. For instance, the International Air Transport Association (IATA) specifies how to package, label, and document lithium batteries for air shipment. These guidelines minimize the risk of incidents, such as fires, during transit.

Proper packaging is crucial. Batteries must be encased in materials that can withstand physical shocks and prevent short circuits. Additionally, you must separate them from other items that could cause damage or react during transportation. Labels indicating the presence of hazardous materials and instructions for handling them are also mandatory.

Storage presents similar challenges. Lithium batteries must be stored in cool, dry environments away from direct sunlight and sources of heat. That's because exposure to high temperatures can lead to thermal runaway, a situation where the battery overheats and potentially ignites. In warehouse settings, store batteries in well-ventilated areas and keep them away from flammable materials to reduce the risk of fire.

Fires caused by lithium batteries are notoriously difficult to extinguish and can result in significant property damage, not to mention the potential harm to human life. Therefore, organizations that handle the transportation and storage of lithium batteries must prioritize safety and compliance by taking all necessary precautions to mitigate these risks.

Usage Phase

Lithium batteries are the backbone of modern industry, powering everything from production equipment to the equipment that keeps operations running smoothly. The high energy density and efficiency of lithium batteries make them an attractive option across a wide range of applications. However, the very characteristics that make lithium batteries so effective also contribute to their potential hazards if not used correctly.

For example, if a lithium battery in mobile equipment is repeatedly overcharged or charged with an incompatible charger, it can cause the battery to overheat, triggering thermal runaway. In large-scale battery storage systems, improper ventilation or exposure to excessive heat can similarly result in overheating, causing significant equipment damage and posing serious safety risks to personnel.



It's crucial that operators are trained in excellent practices for battery handling, storage, and maintenance to minimize these risks and extend the operational life of the batteries. Technologies such as Battery Management Systems (BMS) can help track battery performance, temperature, and state of charge, providing early warnings of potential issues. By proactively managing lithium batteries, organizations can prevent failures, reduce downtime, and improve safety.

End-of-Life Management

As lithium batteries approach the end of their useful life, the focus shifts to recycling and disposal. These batteries contain valuable materials, such as cobalt and lithium, which manufacturers can recover and reuse to produce new batteries. However, the recycling process itself is complex and requires specialized facilities equipped to handle the hazardous components of lithium batteries.

Recycling facilities must safely extract and separate the valuable materials from the toxic elements to



make sure they don't release anything harmful into the environment. For example, improper handling during the recycling process can lead to the release of harmful chemicals, exposing workers, or even causing fires if the batteries are damaged or not fully discharged.

Disposal, on the other hand, should be the last resort. Lithium batteries should never be disposed of in regular waste streams, as they can cause fires in landfills or waste processing facilities. Instead, take them to designated collection points where facilities process them according to hazardous waste regulations. However, despite these options, the end-of-life management of lithium batteries remains a challenge.

Understanding these stages is crucial, but knowing how to manage the risks associated with lithium batteries throughout their lifecycle is equally important. Now, let's explore how CHEMTREC's services can help you address these challenges effectively.

HOW CHEMTREC SUPPORTS THE LITHIUM BATTERY LIFECYCLE

Managing the lifecycle of lithium batteries is no small feat, but with the proper support, it becomes much more manageable. Here's how CHEMTREC can assist you in navigating each stage with confidence.

- **Lithium Battery Compliance Solutions:** Whether you need consulting during the manufacturing process or assistance with regulatory compliance in transportation and disposal, CHEMTREC has the expertise to help you navigate these challenges.
- **Incident Response:** In the event of an incident involving lithium batteries, CHEMTREC offers 24/7 emergency response information services. Their team of experts is ready to assist you with managing the situation, minimizing damage, and supporting a swift resolution.
- **Safety Data Sheet (SDS) Management:** Safety Data Sheets (SDS) play a crucial role in managing the lifecycle of hazardous materials, including lithium batteries. CHEMTREC's SDS management services help you maintain compliance with accurate, accessible, and up-to-date SDSs.
- **Hazmat Training:** Training is essential to equip safety and operations professionals with the knowledge they need to handle lithium batteries safely. CHEMTREC offers a range of hazmat training programs to promote safety and compliance across all stages of the battery lifecycle.

CHEMTREC's services provide the support you need to manage the lifecycle of lithium batteries effectively. Whether through compliance solutions, incident response, SDS management, or training, CHEMTREC is your partner in helping your operations run smoothly and safely. Don't leave safety and compliance to chance; let CHEMTREC help you navigate the complexities of lithium battery management.

Learn more at chemtrec.com/battery.

Proactive Risk Assessments: More Than Just a Safety Measure

Imagine a world where a single unexpected event can halt your entire business operations. Accidents, incidents, and unforeseen risks can disrupt your supply chain, damage your reputation, and lead to financial losses. The good news is that proactive risk assessments offer a solution that not only addresses these fears but also enhances your overall business resilience. In this article, we'll explore why proactive risk assessments are crucial for modern businesses, the process involved, and the benefits they provide.

THE PROCESS OF CONDUCTING RISK ASSESSMENTS

Proactive risk assessments involve identifying potential hazards and evaluating the risks associated with them before they occur. This approach allows businesses to develop strategies to mitigate these risks, ensuring better preparedness and safety.

An effective risk assessment involves the following:

- **Identifying potential hazards:** Look for anything that could potentially cause harm or disruption. This might include equipment malfunctions, natural disasters, or human errors. For example, a manufacturing facility might identify potential hazards such as machinery breakdowns or chemical spills.
- **Evaluating the risks associated with these hazards:** Assess the likelihood and impact of each hazard. This involves determining how likely a hazard will occur and the potential severity of its consequences. For instance, a factory might evaluate the risk of a fire breaking out due to faulty wiring and the possible impact on production and employee safety.

- **Developing strategies to mitigate identified risks:** Create plans and procedures to address and reduce risks. This could involve installing safety equipment, training employees, or developing emergency response plans. For example, a warehouse might develop a strategy to mitigate the risk of flooding by installing water barriers and creating a flood response plan.

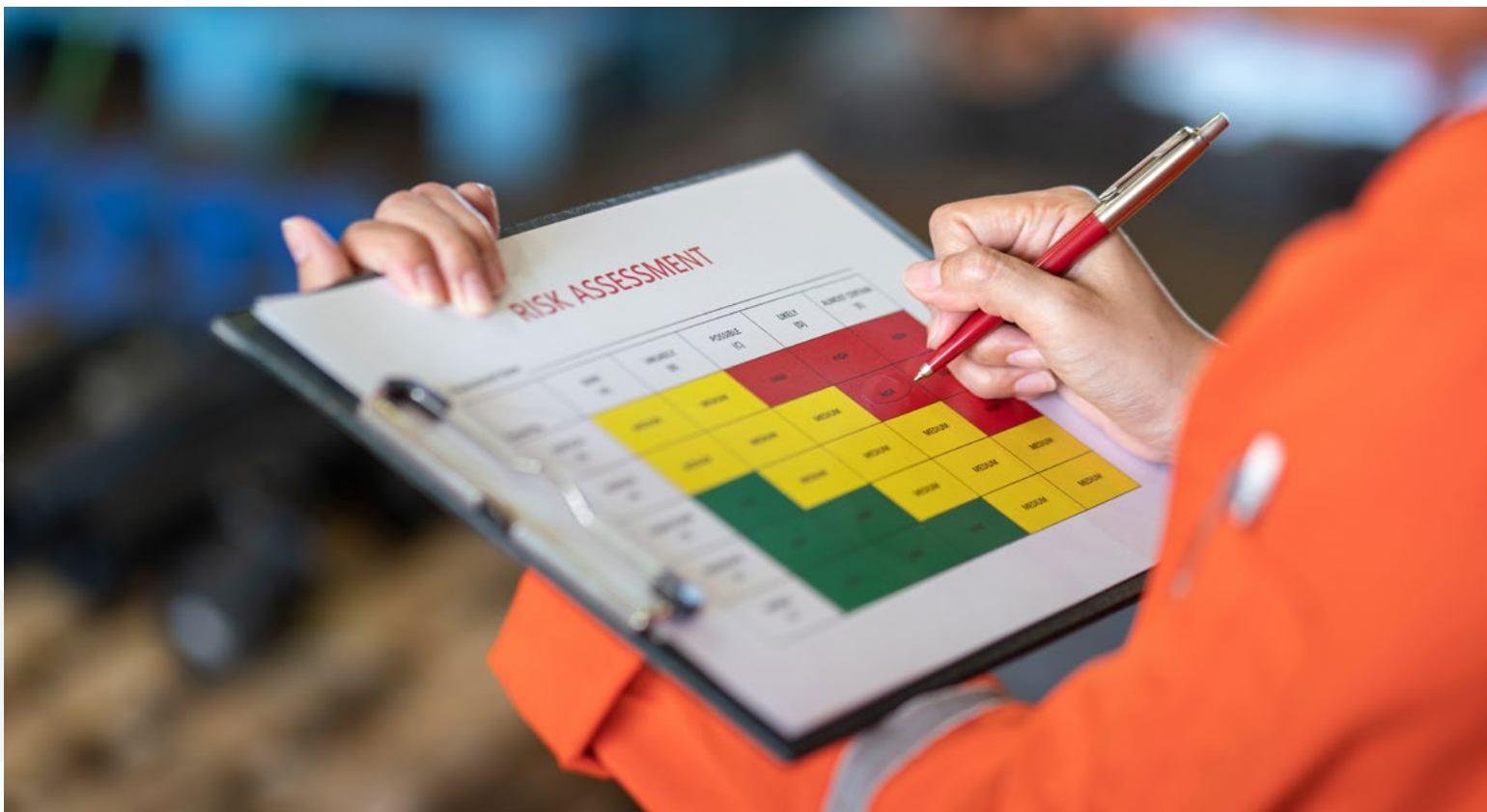
With a clear understanding of the steps involved in risk assessments, we can now look into the tangible benefits they offer to businesses.

BENEFITS OF PROACTIVE RISK ASSESSMENTS

Risk assessments reduce the likelihood of accidents and incidents, protecting employees and the environment. However, the benefits extend far beyond safety, impacting various aspects of operations:

- **Cost Savings:** Minimizes financial losses by preventing costly accidents and operational disruptions. A transportation company that regularly assesses risks along its routes can avoid delays and damages caused by road closures or severe weather, saving on repair and rerouting costs.
- **Compliance:** Helps meet regulatory compliance requirements, avoiding fines and legal issues. For instance, a healthcare facility must comply with stringent health and safety regulations. Proactive risk assessments ensure the facility remains compliant, avoiding penalties and maintaining its operational license.
- **Reputation Management:** Maintains a positive public image by demonstrating a commitment to safety and preparedness. A food production company that proactively manages risks ensures product safety and quality, maintaining consumer trust and brand reputation.
- **Operational Continuity:** Ensures business operations are not disrupted, maintaining productivity and profitability. For example, a tech company that conducts regular risk assessments can identify potential cyber threats and implement robust security measures, ensuring uninterrupted service delivery and protecting customer data.

Recognizing these benefits underscores why proactive risk assessments are indispensable. Next, we will focus specifically on transportation risk assessments, a critical area given the high exposure to risks in this sector.



FOCUS ON TRANSPORTATION RISK ASSESSMENTS

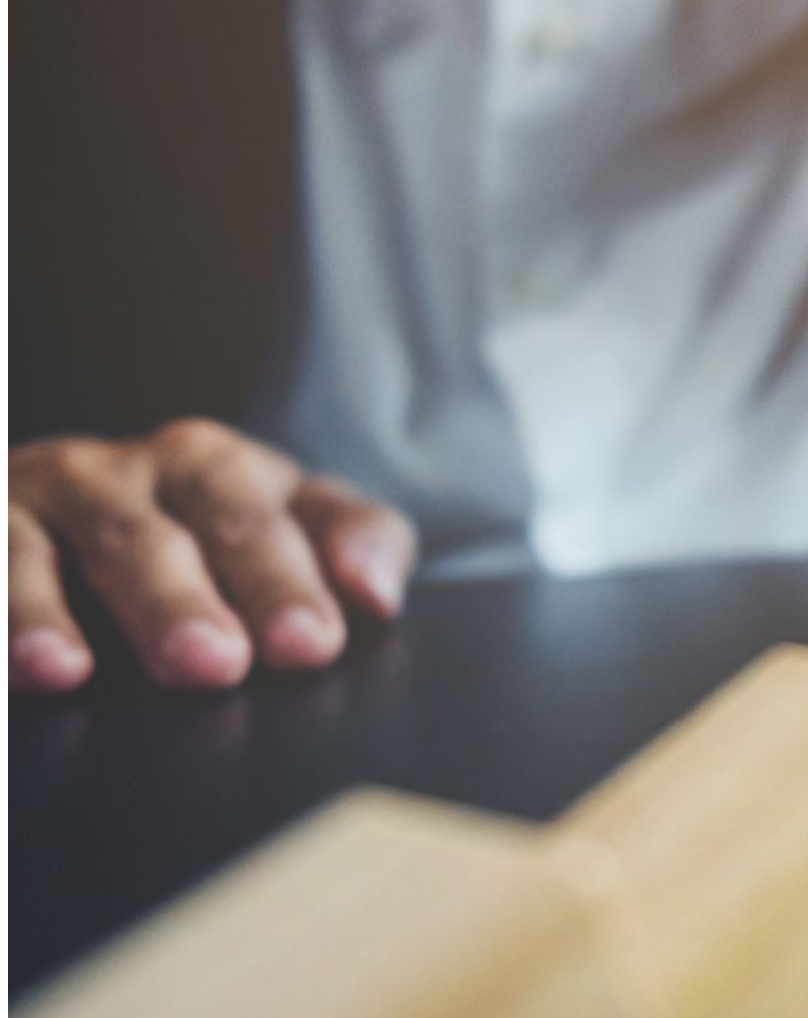
Within transportation, a single incident can severely impact supply chains and overall business operations, leading to delays, financial losses, and reputational damage. Transportation involves diverse risks, including accidents, natural disasters, and security threats.

For example, a truck carrying hazardous chemicals might face road closures due to weather conditions, necessitating a detour through more populated areas, increasing the risk of an incident. Similarly, cargo ships face risks such as piracy or rerouting due to port strikes, which can delay delivery and expose the cargo to additional hazards.

Key Considerations

- **Routes and Potential Hazards:** Understanding the risks associated with different routes is essential. For instance, transporting goods through regions prone to severe weather, political instability, or high traffic congestion can significantly increase the likelihood of incidents. By mapping these risks, companies can select safer, more reliable routes.
- **Modes of Transport:** Each mode of transport—road, rail, sea, and air—presents unique risks. Road transport might face accidents or theft, rail transport could be disrupted by track issues or derailments, sea transport might face storms and piracy, and air transport must navigate issues like turbulence or security threats. Evaluating these risks helps in choosing the best mode for each shipment.
- **Diversion Scenarios:** Planning for cargo diversions is crucial. If a cargo ship is diverted due to a storm, the new route might take it through pirate-infested waters, posing significant risks. Similarly, an airplane diverted due to weather conditions might land in a less secure airport. Assessing these scenarios helps prepare for alternative routes and the associated risks.
- **Resources for Incident Response:** Identifying cleanup providers and ensuring they have the capabilities to handle the materials being transported is vital. For example, if a truck carrying hazardous materials overturns, having a nearby, qualified response team ensures quick and effective cleanup, minimizing environmental and health impacts.

Given these complex risks and the need for robust incident response plans, businesses must seek expert guidance to navigate these challenges effectively. This is where CHEMTREC's specialized services come into play.





HOW CHEMTREC CAN HELP

CHEMTREC offers comprehensive assessment services, including Transport Risk Assessments and Site Risk Assessments, to help businesses identify and mitigate potential hazards. With over 50 years of experience, CHEMTREC's expertise ensures that risks are managed proactively, preventing crises before they occur. Their services include:

- **Assessment and Prevention:** Conducting risk assessments and process hazard analyses to identify and mitigate potential hazards.
- **Preparedness:** Developing emergency response plans and providing training to ensure businesses are ready for any incident.
- **Response and Recovery:** Offering incident reporting and specialist advice during and after incidents to support businesses in managing and recovering from emergencies.

Proactive risk assessments are not just a safety measure but a strategic tool for ensuring business resilience and operational efficiency. By identifying and mitigating risks early, businesses can prevent incidents, save costs, and protect their reputation. Prioritizing risk assessments today can safeguard businesses against tomorrow's uncertainties. Taking the necessary steps to integrate proactive risk assessments into safety and operational strategies is crucial.

Take action now to safeguard your business against unforeseen risks. Contact CHEMTREC today to learn how their comprehensive risk assessment services can help you avoid potential hazards, ensure regulatory compliance, and maintain operational continuity. Don't wait for a crisis—be proactive and secure your future.

Contact crisissolutions@chemtrec.com for a consultation and start building a more resilient business today.

Are We Storm Ready?

TOP 10 HURRICANE PREPAREDNESS TIPS FOR THE CHEMICAL INDUSTRY

CHEMTREC and the Alliance for Chemical Distribution (ACD), recently convened a panel of professionals to share their experience of preparing for hurricane season. Here are the top 10 tips for achieving hurricane preparedness in the chemical industry:

1. Rollout of Hurricane specific training and drills

Develop and deliver regular hurricane preparedness training sessions. These should build on existing emergency management training and scenarios but deal specifically with the threats posed during hurricane season. Organize regular or periodic drills that simulate different hurricane scenarios to test and refine response protocols. Use these drills to assess the effectiveness of current plans and make necessary adjustments. The panel found the bigger risks were often from tropical storms as hurricanes get 'belts & braces' prep – but tropical storms will often catch you ill prepared.

2. Develop Customized Site-Specific Plans

Many organizations lack site-specific hurricane preparedness plans. Generic plans may not address unique vulnerabilities and needs, leading to insufficient readiness. Create detailed plans for each site, considering their unique specific risks and resources. Collaborate with emergency management professionals to enhance these plans. Periodically review and update site-specific plans to incorporate new information and evolving risks. Carry out a free health check here to provide a gauge on your strengths and opportunities for improvement.

3. Focus on Recovery Planning

Organizations often face prolonged operational disruptions and significant financial losses without

robust recovery plans. All too often plans focus solely on response, without considering how the business will recover. Statistics by FEMA suggest that 90% of small companies struck by a disaster fail within two years – recovery planning is business critical!

4. Upgrade Communication and Staff Tracking Systems

Maintaining communications with staff before, during and after a severe weather event is vital. Many organizations still deploy manual processes to do this which take time and do not always convey the urgency of any messaging. Invest in reliable and versatile mass communication tools that can function during power and network outages, and which deliver information rapidly in the event of an actual or potential incident – these do NOT need to cost a fortune to be effective! If you'd like advice or guidance and this is of interest to you, schedule an appointment or drop us an email at crisissolutions@chemtrec.com.

5. Develop Robust Continuity of Operations Plans

In CHEMTREC's State of the Industry Survey, 61% of organizations surveyed did not have a good understanding of how their emergency response, crisis management and business continuity management response mechanisms came together to form a holistic response. Having a holistic, coordinated response, recovery and continuity program is a vital step for all organizations. COVID-19 has seen an increase in interest in continuity of operations planning, but many COOP plans were designed specifically with COVID in mind, organizations should ensure their plans consider the significant potential impacts of a hurricane and that their mitigation and continuity strategies would work in these scenarios.

6. Enhance Crisis Management Plans

Lack of crisis management planning at the strategic level can lead to poor coordination and decision-making. Good crisis management plans enable a company to set the strategic intent and support the



operational and tactical operations in hurricane preparedness.

7. Conduct Transport Risk Assessments

Even if organizations are not directly in the path of a severe storm, the impact on supply chains can be significant. Organizations must undertake work to understand not only their supply chain, but also the potential impacts on their transportation network of a hurricane. Route risk assessments help identify vulnerabilities in transportation routes and with different modes of transport, allowing companies to develop contingency plans that mitigate not only the direct impact of incidents, but also the knock-on impacts that may occur to transportation infrastructure in the event of a hurricane. Inadequate transport risk assessments, and a lack of understanding of supply chains, can compromise the continuity of operations.

8. Regularly Review and Update Plans and Consider a 'Health Check'

The absence of regular plan reviews can leave organizations unprepared for new and evolving risks. Outdated plans may not be effective during an actual event. On the flipside, following the COVID pandemic, many organizations may find themselves with strategies which enhance their continuity of operations planning, with far more staff now able to work remotely, negating the need for a backup

office space. A review of plans can therefore lead to potential cost savings! Carry out a free health check here.

9. Engage with Experts

Many organizations lack the specific capabilities to deal with severe weather events. Our state of the industry survey revealed that only 7% of organizations responding to the survey have a full-time, dedicated crisis management expert. Visit our Consulting Solutions website where you will find some helpful resources. Work with local industry experts to evaluate your risks and plan to manage and mitigate these.

10. Utilize Preparedness Assessment Tools

Many organizations do not utilize available tools to assess their preparedness levels. Implications: Without proper assessment, organizations may overlook critical areas needing improvement. Please use this link to access a free hurricane preparedness assessment to carry out a free health check.

For more information, visit CHEMTREC's Consulting Solutions website at <https://www.chemtrec.com/our-services/consulting-solutions>.



How to Effectively Use Safety Data Sheets in Emergency Situations

A chemical spill suddenly erupts in your facility. Panic spreads as employees scramble to respond, unsure of the next steps. In these critical moments, having immediate access to precise information can be the difference between a controlled situation and a catastrophic disaster. Safety Data Sheets (SDSs) are vital for efficiently managing such emergencies. This article will illuminate the crucial role of SDSs in emergency scenarios. By the end, you'll have the knowledge to leverage SDSs for quick, informed responses, significantly enhancing your emergency preparedness.

The Role of SDSs in Emergency Situations

Safety Data Sheets are detailed documents that provide essential information about hazardous chemicals. Each SDS, following the Globally Harmonized System (GHS), has a specific format and includes section headings with associated information. This information covers proper identification, mitigation measures, handling and storage recommendations, supporting physical and technical data, and other regulatory details.

In the midst of an emergency, having quick access to precise information is crucial. SDSs play a pivotal role in providing the necessary details to manage such situations effectively.

Immediate Access to Information

During emergencies, time is of the essence. SDSs provide critical information swiftly, ensuring responders have access to the necessary details to act immediately. For instance, if a chemical spill occurs, the SDS will outline the specific risks



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associated with the chemical and the appropriate response measures. This rapid access to information can prevent confusion and delay, reducing potential harm.

Ensuring SDSs are readily accessible in digital and hard copy formats allows for quick consultation, regardless of the situation. Digital SDSs can be stored in an easily searchable database, allowing responders to instantly pull up the information on their devices.

Chemical Hazards Identification

One of the primary roles of an SDS is to identify the specific hazards associated with chemicals. This section of the SDS includes details such as:

- **Physical Hazards:** Risks associated with a substance's ability to catch fire (flammability), explode (explosiveness), or react dangerously with other chemicals (reactivity).
- **Health Hazards:** Risks that a substance poses to human health, including its potential to cause poisoning (toxicity), cancer (carcinogenicity), or respiratory issues (respiratory sensitization).
- **Environmental Hazards:** Risks a substance poses to the environment, particularly its potential to harm aquatic life and ecosystems.

Understanding these hazards is crucial for determining the appropriate response measures. For example, knowing whether a chemical is highly flammable or toxic will influence the type of protective equipment needed and the approach to containment and cleanup.

First Aid Measures

SDSs provide detailed first aid instructions tailored to the specific chemicals involved. These instructions include:

- **Immediate Actions:** Steps to take immediately after exposure, such as flushing the skin or eyes with water.
- **Symptoms:** Signs of exposure that responders and those exposed should watch for, like coughing, dizziness, or skin irritation.

- **Medical Attention:** Guidance on when to seek medical attention and what information to provide healthcare professionals.

For example, if an employee is exposed to a corrosive substance, the SDS outlines the procedure to neutralize the chemical and prevent further injury. This direction supports medical responders, allowing them to provide accurate and effective assistance.

Accidental Release Measures

When spills or accidental releases occur, SDSs provide detailed procedures to manage these incidents effectively. These procedures include:

- **Containment and Cleanup Methods:** Steps to contain the spill, such as using absorbent materials or creating barriers, and instructions for safely cleaning up the chemical, including the disposal of contaminated materials.
- **Emergency procedures:** A detailed list of immediate actions to be taken by the emergency responders on arrival at the scene.
- **Personal Protective Equipment (PPE):** Recommendations on the necessary PPE to protect responders during the containment and cleanup process.

For example, a chemical spill occurs in a manufacturing plant. In that case, the SDS will guide the response team on how to safely contain and clean up the spill, preventing environmental contamination and supporting the workers' safety.

Recognizing the critical role of SDSs during emergencies, it's essential to implement excellent practices that support their effective use.

Excellent Practices for Using SDSs in Emergencies

Here are several excellent practices that help to maximize the effectiveness of SDSs during emergencies.

- **Training and Awareness:** Training is the foundation of effective SDS utilization.

All employees should be trained to access and understand SDSs. This training should cover how to read each section of the SDS, interpret hazard information, and apply safety measures.

- **Accessibility:** According to OSHA's Hazard Communication Standard, SDSs must be easily accessible during emergencies. This means storing them in digital and hard copy formats for most organizations. For example, house digital SDSs in an easily searchable database that employees can access via mobile devices, tablets, or computers. Hard copies should be available in key locations, such as near hazardous material storage areas and central office spaces. Consider using color-coded binders or labels for quick identification.
- **Regular Updates and Reviews:** Regular updates and reviews of SDSs are essential for maintaining accurate and reliable information. Designate a team or individual responsible for reviewing SDSs on a set schedule, such as quarterly or semi-annually. This team should add new chemicals, replace outdated SDSs, and ensure all information complies with current regulations.

Implementing these practices can significantly enhance your emergency preparedness. However, having expert support and comprehensive services can further bolster your safety measures.

How CHEMTREC Can Help

At CHEMTREC, we offer a comprehensive suite of services tailored to support your SDS and emergency response needs.

- **SDS Management Services:** CHEMTREC provides end-to-end SDS management services, including authoring, accessing, and distributing SDSs. Our team of specialists keep your SDSs accurate, up-to-date, and compliant with all relevant regulations.
- **Emergency Response Support:** Our 24/7 emergency response services offer immediate support during hazardous material incidents. Whether you require assistance with chemical spill containment, exposure management, or regulatory reporting, our dedicated team is ready to help.
- **Consulting Solutions:** At CHEMTREC, our consulting solutions can seamlessly integrate SDSs into your emergency response plans. Our experienced consultants collaborate with your team to develop customized strategies aligning with your needs and regulatory requirements.
- **Training Programs:** CHEMTREC offers a variety of online courses and training programs. These programs cover critical topics such as SDS, hazardous materials handling, and emergency response protocols.

Safety Data Sheets are indispensable tools in managing emergencies involving hazardous materials. By understanding their role and implementing best practices, you can get quick, informed responses that protect both your employees and the environment. Contact CHEMTREC at sdsolutions@chemtrec.com today to discover how we can help you manage hazardous materials with confidence and build a safer, more resilient workplace.



Global Guide to Emergency Response Numbers: What You Need to Know

Navigating the complex web of hazardous materials regulations is a challenge every safety professional and operations manager faces. Among the most crucial aspects of this compliance is managing emergency response telephone numbers. Without the right numbers in place, a single incident can escalate into a crisis, putting lives at risk, inviting legal trouble, and tarnishing your company's reputation. But staying compliant isn't just about avoiding penalties; it's about ensuring that your organization is fully prepared to respond swiftly and effectively when an emergency strikes. In this article, we'll break down what you need to know to protect your business and keep your operations running smoothly.

THE ROLE OF EMERGENCY RESPONSE NUMBERS

Emergency response telephone numbers are critical tools used during chemical and hazardous materials incidents. These numbers provide immediate access to experts who can offer guidance and support during emergencies, to manage incidents effectively and safely. There are two primary types of emergency response numbers:

- **Transport-related:** Required on shipping documents and vehicle placards while transporting dangerous goods.
- **Supply-related:** Included on Safety Data Sheets (SDS) and product labels to protect end users.

Having the correct emergency response numbers can mean the difference between a well-managed

incident and a disaster, which is why they're mandated by various legal frameworks across the globe. Their presence on documentation helps protect public health, the environment, assets and corporate reputations by facilitating swift and informed responses to hazardous materials incidents. With the importance of these numbers established, it's essential to explore the global regulatory frameworks that mandate their use.

GLOBAL REGULATORY FRAMEWORK

On the transport side, the foundation of global emergency response telephone number regulations lies in the United Nations Recommendations on the Transport of Dangerous Goods, also known as the "UN model regulations." These guidelines have been adapted into various international or regional modal regulations, including:

- ICAO TI (International Civil Aviation Organization Technical Instructions) for air transport.
- IMDG Code (International Maritime Dangerous Goods Code) for sea transport.

ADR (Agreement concerning the international carriage of Dangerous Goods by Road) and RID (Regulations concerning the international carriage of Dangerous Goods by Rail) for land transport.

While these modal regulations do not mandate the display of emergency numbers on transport documentation, it is worth noting that many carriers have made it their policy to always ask the shipper to include an emergency number on the documentation.

On the supply side, the foundation of global emergency response telephone numbers lies in the Globally Harmonized System of classification and labelling of chemicals (GHS), requiring emergency numbers on Safety Data Sheets (SDS) for chemical products.

Country-Specific Requirements

While global frameworks provide a foundation, each country may have specific emergency response number requirements. For example:

- The United States: Title 49 of the Code of Federal Regulations (49CFR) mandates emergency numbers on shipping documents.
- European Union: The Regulation on Classification, Labelling, and Packaging (CLP) requires emergency numbers on Safety Data Sheets.

These differences highlight the complexity of maintaining compliance across multiple regions, especially for companies operating internationally. Companies must navigate varying requirements across different countries, ensuring their documentation meets all local, regional, and international standards. The risk of non-compliance is high, particularly when regulations change, or companies expand into new markets.

COMPLIANCE MANAGEMENT ESSENTIALS

Successfully managing compliance involves more than just understanding the rules; it requires implementing excellent practices that support adherence in every situation.

Displaying Emergency Response Numbers

To support compliance, it's essential to display emergency response numbers correctly on all relevant documentation. This includes shipping documents, Safety Data Sheets, and product labels. Excellent practices include:

- Using regional or local numbers: Include a number relevant to the region where the product is being transported or used.
- Ensuring visibility: Place the number on the document or label in a prominent location.

Providing 24/7 Accessibility

Emergency response numbers must be answered 24/7 to address incidents at any time. Companies should:

- Partner with a reliable provider: Providing trained professionals who always answer the call and provide the necessary support.



- Provide multilingual support: Given the global nature of many operations, offering support in multiple languages is critical.

Transport of Dangerous Goods

National regulations for different modes of transport—air, sea, and land—have different requirements for emergency response numbers. Special products like explosives or radioactive materials may require additional considerations. Companies should:

- Stay informed: Regularly update knowledge of the specific regulations for each mode of transport and product type.
- Prepare documentation accordingly: Ensure all transport documents include the required emergency response numbers.

Supply of Chemical Products

The Globally Harmonized System (GHS) requires emergency numbers on Safety Data Sheets (SDS) for chemical products. In addition, many countries add their own requirements to the GHS requirements.



Companies must:

- **Customize SDS for each market:** Include emergency response numbers relevant to the local regulations.
- **Clearly state hours of operation:** If the emergency number is not available 24/7, this must be explicitly mentioned on the SDS.

Poison Center Numbers in Europe

In Europe, poison center numbers are required on Safety Data Sheets, in addition to emergency response numbers. Companies must ensure that these numbers are included and correctly displayed, particularly when exporting to European Union member states.

Having a robust compliance strategy is vital, but knowing where to turn for expert guidance can make all the difference. CHEMTREC is here to provide the support and expertise needed to navigate these complex regulatory landscapes.

HOW CHEMTREC CAN HELP

CHEMTREC is here to make global compliance with emergency response numbers straightforward and reliable. With decades of expertise and a global network of regulatory specialists, we offer tailored solutions that meet the unique demands of your industry. Our services help keep your documentation accurate, accessible, and fully compliant, whether you operate locally or internationally. Don't leave compliance to chance—review your emergency response procedures now. Trust CHEMTREC to provide the support you need to keep your organization safe and ready for any emergency. Learn more at www.chemtrec.com/erguide.





From Chaos to Control: The Role of Crisis Management Plans

Imagine your business facing a sudden disaster—a chemical spill, a cyber attack, or a natural disaster. In those moments, chaos can quickly take over, threatening your operations, employees, and reputation. This scenario highlights a common pain point for many organizations: the lack of preparedness for unexpected crises. Without a solid plan, even minor incidents can escalate into major disruptions.

This article will guide you through creating an effective crisis management plan, crucial for minimizing the scale and impact of disruption. You'll learn about the steps involved and understand why such a plan is essential. By the end, you'll see how a well-structured crisis management plan can turn chaos into control, assisting with your business's resilience.

UNDERSTANDING CRISIS MANAGEMENT PLANS

A crisis management plan is a strategic blueprint designed to help organizations respond to unexpected events. It outlines procedures and actions during emergencies to minimize damage and help with safety. With a plan, companies can navigate through crises with a clear, systematic approach, making sure that they are prepared for any eventuality.

Goals of a Crisis Management Plan

- **Safety:** Protecting employees and the public is the foremost priority. For instance, during a chemical spill at a manufacturing plant, a well-executed crisis management plan will assist with effective communication with the public while

supporting the site's emergency response team to evacuate personnel safely.

- **Minimizing Damage:** The crisis plan aims to reduce physical, financial, and reputational damage by facilitating a timely and coordinated response across the organization. In a cyber attack, immediate action guided by a crisis management plan, in conjunction with the organization's disaster recovery plan, can limit data breaches and financial losses.
- **Restore Operations:** It is crucial to ensure operations can continue or resume quickly. After an earthquake, a prepared company can switch to backup systems and continue operations with minimal downtime. The crisis management team and plan should integrate with the organization's business continuity plans.

Having understood the significance of crisis management plans, let's explore the step-by-step process of developing one.

Steps to Creating an Effective Crisis Management Plan

These are the practical steps necessary to create a robust plan:

- **Risk Assessment:** Identify potential threats and vulnerabilities that could impact your business. Evaluate the likelihood and impact of various crises, such as natural disasters, cyber-attacks, or hazardous material spills. For example, a chemical company might assess the risk of a spill and its potential impact on local communities and the environment. This assessment helps prioritize which risks need the most attention and resources.
- **Crisis Management Team:** Form a dedicated team responsible for managing crises. Assign roles and responsibilities to make clear everyone knows their tasks during an emergency. This team should include members from various departments, such as safety, operations, and communications, to cover all aspects of crisis management. Consider using the roles defined in the Incident Command System to define roles such as Incident Commander, Operations, Finance, Logistics, Planning, and Public Information. For instance, during a major spill on a site, the Incident Commander oversees the entire response effort while the Operations Chief directs the response team. The Public Information Officer manages information dissemination to the public and stakeholders.



- **Communication Plan:** Clear communication is vital during a crisis. Develop strategies for internal and external communication to keep everyone informed and coordinated. This includes identifying key spokespersons, establishing communication channels, and crafting messages tailored to different audiences. For example, during a data breach, the IT department communicates technical details internally while the public relations team informs customers about protective measures.
- **Developing Response Procedures:** Create detailed action plans for different types of crises. Ensure procedures exist at an operational/tactical level for immediate response, coordination with emergency services, and stakeholder communication. For instance, in the event of a hazardous material spill, the response plan might include steps for an emergency response phone number, containment, notification of local authorities, and cleanup procedures. The crisis management plan should tie into these operational procedures, helping streamline the response and verifying that nothing is overlooked.
- **Training and Drills:** Regularly train your crisis management team and conduct drills. Practice helps improve response times and reveals areas needing improvement. For example, a chemical company may conduct regular communications drills to ensure their key responders can be notified and understand their role in the event of a call. These drills also help team members familiarize themselves with their roles and responsibilities, making the response more effective.

Once you have a plan in place, it's crucial to recognize that having a well-crafted crisis management plan is just the start.



ESCALATION OF INCIDENTS AND THE ROLE OF COMMUNICATION IN CRISIS MANAGEMENT

Minor incidents, such as chemical spills or data breaches, can quickly escalate into significant crises if not appropriately managed. For example, a small chemical spill in a factory might seem manageable, but if not contained swiftly, it can spread, endangering workers and the environment. Similarly, a minor cyber attack could lead to significant data loss and financial damage if not promptly addressed. Early detection and response are critical to prevent these issues from escalating.

Clear and efficient communication is essential to managing these incidents effectively. Establishing communication flows between the incident scene and corporate roles helps keep everyone informed and gives the ability to make timely decisions. For instance, during a factory fire, the on-site safety

officer must relay updates to the corporate crisis management team, allowing them to coordinate with emergency services and inform stakeholders accurately.

Utilizing technology enhances these communication flows. Tools like 24/7 emergency call centers, mass communication systems, and digital management platforms streamline information sharing and coordination. During a hurricane, an emergency call center can provide real-time updates, while mass communication systems can quickly alert employees and stakeholders. Digital platforms track incident progress and document decisions, assisting with a well-coordinated response.

Effective communication is just one piece of the puzzle. Quick stabilization efforts, such as isolating affected areas and notifying emergency services, are vital to control the situation and set the stage for recovery. Long-term recovery involves restoring operations, evaluating the crisis response, and updating plans to improve future preparedness.

HOW CHEMTREC CAN HELP

CHEMTREC offers comprehensive crisis management services, including risk assessments, crisis management training, and emergency response plans. Their 24/7 emergency call center provides immediate support during hazardous material incidents, supporting swift and effective communication. With over 50 years of experience, CHEMTREC's expertise and technology enhance your crisis preparedness and response capabilities, helping you effectively manage and recover from any emergency.

Ready to strengthen your crisis management plan? Contact CHEMTREC at **crisissolutions@chemtrec.com** for the support necessary to prepare your business for an emergency. Our specialists are here to help build a resilient future. Don't wait—protect your business now. Reach out to CHEMTREC and start enhancing your crisis preparedness.



Navigating Natural Hazards: New Rules for Chemical Safety in Hurricane Season

By: Rebecca O'Donnell, Associate Director, Process Safety & Occupational Health, American Chemistry Council

HURRICANES, FLOODS, AND HIGH WINDS

Hurricane season began on June 1, and we have seen many storms throughout the season. In this blog, we dive into some of the new rules that the chemical industry is facing and how organizations can intertwine emergency response planning into this year's hurricane season.

Following President Biden's day-one executive order (EO 13990: Protective Public Health and the Environment and Restoring Science to Tackle the Climate Crisis), the Environmental Protection Agency (EPA) has recently finalized rules that are intended to prevent accidental releases of chemicals into air and water. Some facilities will need to evaluate the risks posed by natural hazards – including, but not limited to, hurricanes – when conducting their hazard reviews or process hazard analyses.

EPA believes that natural hazards have the potential to initiate accidents that threaten human health and the environment, and that planning for severe weather events is critical as these events become more common and intense due to climate change. Consideration of the risks of accidental releases posed by natural hazards, along with any controls that can address that risk, are necessary to protect human health and the environment.

WHAT DOES EPA CONSIDER A NATURAL HAZARD?

In the revised Risk Management Plan (RMP) rule, EPA defines natural hazard to mean meteorological,

climatological, environmental or geological phenomena that have the potential for negative impact, accounting for impacts due to climate change. Some of the examples that EPA provides include extreme weather such as coastal flooding, hurricanes, tornados, but also more common weather conditions like heat waves, strong winds, ice storms, and hail. Put simply, if there's an external weather condition that could impact your facility's operations and result in an accidental release, you may want to consider if that condition could create additional risks at your facility.

WHAT ARE THE NEW REQUIREMENTS?

EPA has finalized two rules that describe the need to evaluate the risks of natural hazards: the Risk Management Plan (RMP) rule, and the Clean Water Act Hazardous Substance Facility Response Plan rule.

The RMP rule has been around for several decades and is intended to prevent accidental releases that result in offsite impacts from chemical facilities and refineries. EPA finalized new changes that clarify that facilities must consider natural hazards in a hazard review or Process Hazard Analysis, and determine what, if any, safeguards may be needed to prevent an accidental release.

In addition, covered facilities must now address the risk of power failure and standby or emergency power systems as part of the PHA. While facilities will not be required to implement standby or emergency power for an RMP process, facilities should consider the appropriateness of backup power for their process and must explain decisions not to implement backup power.

However, where facilities have monitoring equipment associated with the prevention and detection of accidental releases, this equipment is required to have standby or backup power. EPA wants monitoring equipment up and running in the event of a natural disaster that knocks out power, so that owners and operators will know if there is a release and can inform first responders and the local community if needed.



In addition to the revised RMP rule, EPA has also recently finalized a new rule that requires some facilities to plan for worst-case discharges of Clean Water Act hazardous substances. Owners and operators subject to this rule must prepare and submit a plan for responding to a worst-case discharge and a substantial threat of such a discharge. Professionals developing this plan should assess the possible hazards to human health and the environment, including consideration of impacts to environmental justice communities and the impacts of climate change. Here, EPA notes that the consideration of climate change impacts should include but is not limited to increased intensity and frequency of extreme events, such as storm surges and inland and coastal flooding.

The facility response plan should also identify and describe response personnel and equipment needed to respond to a worst case discharge and detail the response actions to be carried out by personnel to ensure the safety of the facility and to mitigate or prevent a discharge.

These regulations have additional requirements that may affect emergency response preparedness actions, whether the emergency is caused by a natural hazard or not. Process Safety, EHSS,

engineering, and operations professionals should familiarize themselves with the rules and seek assistance from compliance and legal professionals where appropriate.

REVISING REGULATIONS AND EMERGENCY RESPONSE PLANNING

The Biden Administration is concerned about the possible impact of climate change on the increasing frequency or strength of natural hazards, and EPA is increasingly pointing to natural hazards – including hurricanes – when creating or revising regulations. Chemical manufacturers and distributors may want to check and see if they're subject to these new rules and other relevant regulations and factor that into their emergency response planning for this year's hurricane season.

Our Consulting Solutions team can assist with emergency response planning. Learn more:



How to Optimize 5800.1 Reporting for Safety Success

The 5800.1 form is the document used by the Pipeline and Hazardous Materials Safety Administration (PHMSA) to gather important data on incidents involving hazardous materials in transit and must be filed within 30 days of the incident. Why is this process needed? Do you know where to go for help? Are you aware that the data you gather for it can be used to help your own company operations?

We have a webinar to help answer some of those questions! Titled “Data to Action: Optimizing 5800.1 Reporting for Safety Success”, it features three speakers who share their insights and experiences on how to optimize 5800.1 reporting and use the data to enhance safety and security in the hazardous materials transportation sector. The webinar was held on July 15, 2024, hosted by CHEMTREC and including guests from PHMSA, the American Chemistry Council (ACC), and A. Duie Pyle, a leading LTL carrier. The webinar is available on demand at hazmatsafetytraining.com.

This blog post will summarize the main points of the webinar and highlight a few key takeaways for shippers, carriers, and other stakeholders. Here are some topics that were covered:

- The significance of the 5800.1 form and why it matters for safety and security
- PHMSA’s use and analysis of the data and how they disseminate the information to various stakeholders
- The challenges faced by shippers and carriers in reporting and using the 5800.1 data
- The data insights and tools provided by ACC to its members and partners
- Best practices and lessons learned shared by A. Duie Pyle with its employees and customers
- What CHEMTREC can do to help

RECOVER

Keep in mind that this is only a general overview – the full details can be found in the webinar.

THE 5800.1 FORM – ITS SIGNIFICANCE TO BOTH PUBLIC AND PRIVATE SAFETY AND SECURITY

Our first presenter was Serita McKoy, a Program Analyst at PHMSA. She reviewed the regulatory requirements, the primary use for that data, and how the public benefits from the process. She advised that completion of the form is mandated by federal regulation under 49 CFR part 171.16. Other insights shared included:

- A description of how PHMSA uses the data internally and externally for various purposes, such as policy making, risk analysis, emergency preparedness, performance benchmarking, and regulatory oversight.
- The form promotes a culture of safety and responsibility in the industry and the communities by holding companies accountable for Hazardous Materials incidents
- PHMSA collaborates with different stakeholders, such as government agencies, industry professionals, and emergency responders, to share the data and makes the information accessible to the public through various platforms.
- She showed examples of graphical content, such as maps, charts, and tables produced using the raw data
- Acknowledged some of the challenges that PHMSA and its stakeholders face in reporting and using the 5800.1 data
- Noted that PHMSA is working to address some of the difficulties in complying with the regulation by providing more resources, improving technology integration, and developing more customer-focused services.

With a clear understanding of the steps involved in risk assessments, we can now look into the tangible benefits they offer to businesses.

ACC DATA ANALYSIS AND DISSEMINATION METHODS

The second speaker was Daniel Forest, Director of Data Analytics for Responsible Care (RC) at ACC, who explained the RC initiative and how it relates to the 5800.1 data. ACC has been collecting and analyzing the 5800.1 data for about 20 years to provide its members and partners with data insights and tools to help them improve their EHS&S performance and benchmarking. Some program insights he provided:

- Microsoft Power BI is used to create customizable and interactive dashboards that allow users to alter visualizations and perform a variety of analytical functions
- Users can combine the ACC metrics with third party sources, such as PHMSA, EPA, or CSV files
- This tool helps users identify trends, causes, risks, and opportunities for improvement
- Mr. Forest advised that ACC is working to expand their use of Power BI to provide more flexibility, utility, and in-depth analysis for the 5800.1 data and other EHS metrics.
- Beyond providing a tool for their members, ACC is developing further benchmarking and comparative analysis of the data to examine safety and security performance related to ACC members versus non-members, Responsible Care Partners vs non-Partners, etc.

Recognizing these benefits underscores why proactive risk assessments are indispensable. Next, we will focus specifically on transportation risk assessments, a critical area given the high exposure to risks in this sector.

A. DUIE PYLE BEST PRACTICES AND LESSONS LEARNED

The third and final speaker was Rich Kaczynski, Safety Manager at A. Duie Pyle, who shared his experiences and challenges faced as a carrier in reporting and preventing incidents and spills. Some of his insights gained:

- A. Duie Pyle uses PHMSA's online reporting form. Mr. Kaczynski participated as part of the PHMSA workgroup that developed the online version.
- To capture the correct information consistently and uniformly across all their personnel and terminals, they created their own internal spill form based on the 5800.1 form
- Created internal HAZWOPER spill response teams to handle incidents efficiently and effectively.
- Uses videos and pictures to record incidents and share them with both employees and customers for training and awareness.
- Analyzes the data to identify trends, locations, times, equipment, and other factors that can help them identify and address root causes and risk factors.
- Mr. Kaczynski's motto for promoting continuous improvement is "Training, Training, Training!"

HOW CAN CHEMTREC HELP?

After hearing from the experts and practitioners on how to optimize 5800.1 reporting for safety success, you might be wondering how CHEMTREC can help you with your incident reporting needs.

- CHEMTREC is more than just a 24/7 emergency response center; we are also your partner in compliance and risk management.
- We have technology and trained staff ready to help you simplify your reporting efforts and guide you through the complexities of completing the 5800.1 form accurately and efficiently.
- Whether you need to submit a report to PHMSA, Responsible Care, or other agencies, CHEMTREC can help you meet your obligations and improve your safety performance .

Please reach out to us at sales@chemtrec.com if you have any questions or if you want to learn more about our Incident Reporting services. CHEMTREC is here to help you stay safe and compliant.



Decoding Hazardous Materials Reporting: Your Go-To FAQ Handbook

Whether you're a seasoned industry professional or a newcomer seeking to understand hazardous materials handling, this post is tailored to offer insights and guidance. Let's unlock the answers to your most pressing questions in Hazardous Materials Incident Reporting as presented by PHMSA based off of historical letters of interpretation (LOI) related to the Hazardous Materials Regulations (HMR).

Additionally, if you're in need of support with incident reporting, consider a partnership with CHEMTREC to ensure enable streamlined processes as well as consistent and readily available data. CHEMTREC is registered with PHMSA to submit DOT Form 5800.1 reports on your behalf. Visit chemtrec.com/our-services/incident-reporting to learn more about this offering.

1. Question: Who is responsible for completing and submitting a detailed hazardous materials incident report?

Answer: As specified in § 171.16(a), each person in physical possession of a hazardous material when an incident occurs must file a Hazardous Materials Incident Report on DOT Form F 5800.1 to the Department. See § 171.16(b) for information on providing and retaining copies of the incident report, details of where to obtain the forms, and where to file the forms.

2. Question: How long do I have to submit a written incident report?

Answer: In accordance with § 171.16(a), a person must submit a detailed incident report to the Department within 30 days of discovery of the incident.

3. Question: Who is responsible for providing immediate notice by telephone if an incident occurs that meets the criteria in § 171.15(b)?

Answer: As specified in § 171.15(a), each person in physical possession of a hazardous material when an incident occurs must provide notice by telephone to the National Response Center (NRC) 1-800-424-8802 (toll free) or 1-202-267-2675 (toll call). Any person who performs or is contractually responsible to perform any of the HMR functions is legally responsible under the regulations for their proper performance.

4. Question: How long do I have to provide notice by telephone to the National Response Center (NRC) when an incident occurs that meets the criteria in § 171.15(b)?

Answer: In accordance with § 171.15(a), a person must provide notice by telephone as soon as practical but no later than 12 hours after the occurrence of any incident described in § 171.15(b). Any reporting delay beyond what is necessary to safely secure the scene of the incident is not permitted.

5. Question: If an incident occurs resulting in the closure of an access road (i.e., on-ramp, off-ramp, jug-handle, or slip-road) to a major highway, is the closure of the access road leading to a highway considered a "road closure" and subject to the hazmat reporting requirements in § 171.15?

Answer: The answer is yes. Components of a highway, such as access roads and interchange areas that provide access to highways—including interstate highways—are considered components of a "major transportation artery or facility," and are thus subject to the requirements in § 171.15(b)(1)(iv).

6. Question: Is an incident report required if, during the loading/unloading operation, the consignee discovers or observes a leak from a cargo tank motor vehicle (CTMV) or other bulk packaging?

Answer: If an incident occurs while the carrier that delivered the hazardous material is observing or participating in the unloading operation, the incident must be reported because the carrier is deemed to be in possession of the hazardous material at that point— i.e., the incident occurred during transportation. For these incidents, the carrier transporting the hazardous material or other bulk packaging must complete a DOT Form F 5800.1 hazardous materials incident report.

However, if an incident occurs or is discovered while a consignee is unloading a hazardous material from a transport vehicle or emptying a bulk packaging after the carrier has delivered the material and left the premises, the incident is not required to be reported because the incident occurs or is discovered after transportation has ended. As such, the consignee is not required to file a DOT Form F 5800.1 report for an undeclared shipment or a damaged or leaking shipment that is discovered after the carrier has delivered the hazardous material.

Please note that it is possible that a release of this nature is subject to local, state, or federal reporting requirements. We suggest you contact the U.S. Environmental Protection Agency (EPA) at 1-800-424-9346. Additionally, if a person is injured or killed Occupational Safety & Health Administration (OSHA) reporting may be required—OSHA's 24-hour hotline is 1-800-321-6742. See 29 CFR 1904.39 for requirements specific to reporting fatalities, hospitalizations, amputations, and losses of an eye as a result of work-related incidents to OSHA.

7. Question: Under §171.16, a hazardous materials incident report (DOT Form F 5800.1) must be filed when an



undeclared hazardous material is discovered. What is an “undeclared hazardous material”?

Answer: As defined in §171.8, an undeclared hazardous material is a hazardous material that is subject to any hazardous communication requirements and is offered for transportation in commerce without any visible indication to the person accepting the hazardous material for transportation that a hazardous material is present.

Additionally, undeclared hazardous materials provide no indication on either an accompanying shipping document, or the outside of a transport vehicle, freight container, or package to the person accepting the hazardous material for transportation that a hazardous material is present.

8. Question: What information is required on the incident report form for an undeclared shipment?

Answer: The nature of an undeclared shipment is such that complete information about the shipment may not be known at the time of discovery. If the undeclared shipment is discovered because material was released from the package during transportation, then the information in Part II and Part III of the incident report should be completed to



the extent that specific information is known.

Similarly, Parts IV and V of the report concerning the consequences of the incident should also be completed. If the undeclared shipment is discovered and no material was released from the package, then the person filing the report should provide as much information as possible, including the carrier information in item 10 of Part II, the shipper/offendor information in item 11 of Part II, and the shipment origin and destination information in items 12 and 13 of Part II.

For all reports related to undeclared shipments, the events that led to the discovery of the undeclared shipment should be included in Part VI of the report. Finally, for all reports related to undeclared shipments, Part VIII should be completed to provide contact information. For information that is not known at the time the undeclared shipment is discovered, an indication on the report that the information is not known is acceptable.

9. Question: Is immediate notification to the National Response Center (NRC) required if a package of radioactive material is damaged during transportation but the radioactive material itself has not been released from its inner packaging—

which provides shielding—and the damage does not result in radioactive contamination or excessive radiation exposure?

Answer: The answer is yes. Under §171.15, if a radioactive material package is broken, even if the inner packaging remains intact, an immediate notification to the NRC is required. See also About Incident Reporting (June 25, 2019).

10. Question: Must the person who files an incident report keep a copy of the incident report?

Answer: The answer is yes. A copy, written or electronic, of the incident report must be available within 24 hours of a request for the report by an authorized representative or special agent of the Department of Transportation (DOT) and must be retained for two years. See §171.16(b)(3) for requirements specific to retention of an incident report.

11. Question: Where must I keep a copy of an incident report after I file it with PHMSA?

Answer: The report must be accessible through your company's principal place of business or, if maintained elsewhere, be made available at your principal place of business within 24 hours of a request for the report if maintained at other than the reporting person's principal place of business. See §171.16(b)(3) for requirements specific to retention of an incident report.

12. Question: Where can a filer get a copy of the DOT Form F 5800.1?

Answer: Electronic copies are available here and the Guide for Preparing Hazmat Incidents Reports is available.

13. Question: How much hazardous materials may be unintentionally released during the hookup and breakdown of loading and unloading hoses before a person would be required

to submit a Hazardous Materials Incident Report on DOT Form F 5800.1?

Answer: There are exceptions to release reporting, provided the incident is not otherwise subject to immediate telephone notification pursuant to § 171.15. For example, as provided in § 171.16(d)(1), the incident reporting requirements do not apply to a release of a minimal amount of hazardous materials from: (1) a vent, for materials for which venting is authorized; (2) the routine operation of a seal, pump, compressor, or valve; or (3) the connection or disconnection of loading or unloading lines, provided that the release does not result in property damage.

14. Question: Is a carrier required to file an incident report in accordance with § 171.16 for a release from a motor vehicle fuel tank or from a motor vehicle's hydraulic, cooling, or lubrication systems?

Answer: The answer is no. The HMR governs the transportation of hazardous materials in commerce. Fluids in a motor vehicle's fuel tank, hydraulic, cooling, and lubrication system are not "transported in commerce." See § 171.1 pertaining to applicability of the HMR; see also 49 U.S.C. 5101 et seq. Therefore, the reporting requirements in §§ 171.15 and 171.16 do not apply. Please note that it is possible that a release of this nature is subject to local, state, or federal reporting requirements. We suggest you contact the U.S. Environmental Protection Agency (EPA) at 1-800-424-9346.

15. Question: Is an incident report required if a box, drum, or similar packaging is discovered to be leaking after the shipment is delivered to the consignee?

Answer: Incidents that are discovered after transportation— i.e., any movement of hazardous materials by any mode, and any loading, unloading, or storage incidental thereto—has ended, are not subject to the incident reporting requirements under

the HMR. See § 171.1(c) for provisions pertaining to transportation functions.

16. Question: Is immediate notice required under § 171.15 for an incident that leads to a "road closure" when no hazardous material is released as a result of the incident?

Answer: The answer is yes. Regardless of whether a hazardous material is actually released, if a major transportation artery or facility is closed or shut down for one hour or more, the incident must be reported in accordance with § 171.15. In addition, under § 171.16(a)(1), any time immediate notice is required under § 171.15(b), a written report is also required within 30 days of the discovery of an incident.

17. Question: When an incident occurs involving a package of hazardous material containing only a residue of hazardous material, as described in § 173.29, is an incident report required?

Answer: A package containing only a residue of hazardous material is not excepted from incident reporting. See 173.29(a). Section 171.16(d) provides exceptions from incident reporting, which include some scenarios that could apply to a packaging containing only a residue. However, there are no specific provisions that apply to empty packaging's containing a residue of a hazardous material. There are scenarios where an incident report must be filed, such as when a Packing Group (PG) II hazardous material released from a drum containing only residue of the hazardous material.

18. Question: A discovery of a hazardous materials incident is made after transportation has ended. May the consignee file an incident report?

Answer: The answer is yes. A person may file an incident report for a hazardous material release or incident—even when not required—if any of the circumstances set forth in § 171.15(b) or § 171.16(a) have occurred.

A graphic on the left side of the page features a yellow banner with the text 'EXCLUSIVE SERIES' and a large wooden sign with the words 'POLICY UPDATE' in bold, dark letters. The background is a blue sky with a white diamond pattern. The text 'OSHA HazCom Update Series' is written vertically in a yellow, outlined font on the left side.

EXCLUSIVE
SERIES

OSHA's Revised Hazard Communication Standard Published

COMPREHENSIVE INSIGHT ON OSHA UPDATES FOR 2024 BY CHEMTREC

The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) final rule was published May 20, 2024, in the Federal Register. This OSHA 2024 update amends the HCS to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Focused primarily on GHS Revision 7, it addresses issues that arose during the implementation of the 2012 HCS update. This will provide better alignment with other U.S. agencies and international trading partners, while enhancing the effectiveness of the OSHA HCS.

IMPACT OF THE HCS UPDATE

U.S. Impact

OSHA expects these revisions to the Hazard Communication Standard to result in modest improvements in worker health and safety by increasing the quality of information on labels and safety data sheets (SDS) and by allowing workers and first responders to react quicker in an emergency. Net cost savings of the final OSHA HCS rule is estimated at \$29.8 million per year at a seven percent discount rate. The main industries affected include oil and gas, chemical manufacturers, and wholesale trade. (Source: U.S. DOL, OSHA, Federal Registers, Hazard Communication Standard; Final Rule).

International Impact

Without reducing protections, the revised Hazard Communication Standard aligns more closely with U.S. trading partners, including Canada, Australia, New Zealand, and Europe.

The decision to align with Canada has been a priority as it helps facilitate cooperation between the two countries, eases compliance for employers who participate in both markets, and strengthens worker protections by providing harmonized hazard communication standards across trade borders.

Implementation Timeline for OSHA SDS Update Requirements

- The effective date for the revised Hazard Communication Standard is July 19, 2024.
- Substance labels and safety data sheets must be updated to the new standard by January 19, 2026.
- Mixture labels and SDS must be updated to the new standard by July 19, 2027.

During the transition period, one can comply with this updated final rule, HCS 2012, or both.

CHEMTREC can help your organization comply with the HCS updates through our SDS Authoring service.

MAJOR CHANGES TO THE HAZARD COMMUNICATION STANDARD

- **Incorporation by Reference:** The general incorporation by reference section, 29 CFR 1910.6 OSHA HCS, has been updated to include more recent national and international consensus standards. OSHA does not intend to require chemicals already classified using an

earlier version of a consensus standard to be reclassified.

- **8 New Definitions:** Bulk shipment, combustible dust, gas, liquid, solid, immediate outer package, physician or other licensed health care professional (PLHCP), and released for shipment were added as defined terms.
- **Scope and Application, and Clarifying Amendment:** The Scope and Application section of the HCS identifies the chemicals that are (and are not) covered by the revised Hazard Communication Standard. In the Hazard Classification section, OSHA made a clarifying revision to this paragraph to distinguish between hazards associated with the chemical and hazards associated with downstream use (e.g. chemical reactions). This change has been made to match the scope language and OSHA's longstanding position that the HCS covers chemicals under normal conditions of use and foreseeable emergencies.
- **Hazard Classification (Appendix A and B):** The health and physical hazards covered by the HCS update and addressed in Appendices A and B include classification criteria consistent with the GHS. The health and physical hazard classifications are summarized in the following table:



HEALTH AND PHYSICAL HAZARD CLASSIFICATION SUMMARY OF CHANGES

Hazard Category Updates to GHS Rev. 7	Updated Definition	Additional Changes
Appendix A: Health Hazards		
Acute Toxicity	✓	Clarification of 1)Acute toxicity estimate (ATE), 2)Weight of evidence approach, 3)inhalation toxicity 4)unknown toxicity statements
Skin Corrosion	✓	Adopted Rev. 8 to better incorporate animal data. Clarify the sequence in which data should be evaluated. adding factors to be taken into consideration when evaluating irritant responses. Adding new note to mixture table for subcategorization of Category 1. Updated footnotes.
Skin Irritation	✓	
Eye Corrosion	✓	Adopted Rev. 8 to better incorporate animal data. Clarify the sequence in which data should be evaluated. Adding factors to be taken into consideration when evaluating irritant responses. Updated footnotes.
Eye Irritation	✓	
Skin Sensitization	✓	
Respiratory Sensitization	✓	
Carcinogenicity	✓	
Reproductive Toxicity	✓	Added additional method: Extended One Generation Reproductive Toxicity Study)
Effects via Lactation	✓	Added language to account for effects on lactation (rather than via)
Germ Cell Mutagenicity	✓	Deleted Mouse spot test
Corrosive to the Respiratory Tract		OSHA has not explicitly included this hazard, but substances/mixtures may be labeled with additional hazard statement depending on end point (lethality vs non lethality)
Single Target Organ Toxicity-Single Exposure	✓	Including the concept of "relevant ingredient"
Single Target Organ Toxicity-Repeated Exposure	✓	
Aspiration Hazard	✓	"Relevant ingredient" applied and that relevant ingredients are those that are present in concentrations of at least 1%
Appendix B: Physical Hazards		
Explosives		Clarification to the criteria for Division 1.6 Explosives
* Desensitized Explosives		Category 1, 2, 3, and 4
Flammable Gases	✓	Category: 1A, 1B and 2
Pyrophoric Gases		
* Chemically Unstable Gases		Category: A and B
Aerosols and Chemicals Under Pressure	✓	Conclusion that aerosols (flammable and non-flammable) should not also be classified as gases under pressure would ensure that the appropriate hazard warnings are presented on aerosol containers
Flammable Aerosols		
* Non-flammable Aerosols		
* Chemicals under Pressure		Added additional classification considerations (ISO 10156 standard)
Oxidizing Gases	✓	Added note that aerosols should not be classified as gases under pressure
Gases Under Pressure	✓	additional guidance about methods for determining flashpoint, storage requirements on the SDS, and note that aerosols should not be classified as flammable liquid
Flammable Liquids		Adding note that aerosols should not be classified as flammable solid
Flammable Solids		
No changes Self-Reactive Chemicals		
No changes Pyrophoric Liquids		
No changes Pyrophoric Solids		
Self-Heating Chemicals		New note explaining classification of solid chemicals shall be based on tests performed on the chemical as presented.
Chemicals Which, in Contact With Water, Emit Flammable Gases		Updating classification criteria for Category 3 to reflect "the maximum rate of evolution of the flammable gas is greater than 1 liter per kilogram of chemical per hour"
No changes Oxidizing Liquids		
Oxidizing Solids		Adding classification criteria based on Test O.3- Gravimetric tests
No changes Corrosive to Metals		

*Designates New Classification to HCS

OSHA HCS Health and Physical Hazard Classification Summary of Changes table includes hazard category updates to GHS Rev. 7, updated definitions, and additional changes.

- **Allocation of Elements (Appendix C):** Alignment with the GHS Rev. 7 includes:
 - a. Instruction to specify type of equipment where appropriate including hearing equipment.
 - b. Editorial changes made to improve clarity, correct simple omissions of a word or phrase, and more efficiently and concisely combine precautionary statements.
 - c. Specific storage changes for multiple hazards.
 - d. Removed the pyrophoric gases hazard class from OSHA Defined Hazards and incorporated the hazard into the flammable gases hazard class.
 - e. OSHA is not adopting any statements or instructions on consumer products.
- **Safety Data Sheets (Appendix D):** Adding clarification to Sections 1, 2, 3, 8, 9, 10, 11, and 14 addresses common concerns explained in recent Letters of Interpretations (LOIs) and aligned with GHS Rev. 7. These revisions have been made to minimize future confusion and to overall enhance the safety of SDS users.

OSHA HCS Updates to Labels and Other Forms of Warning:

- **Shipped Container Labels:** Hazards resulting from a reaction with other chemicals from known or reasonably anticipated uses do not have to be addressed on shipped containers.
- **Bulk Shipment Labels of Hazardous Chemicals:** Labels may either be on the immediate container or may be transmitted with shipping papers, bills of lading, or other technological or electronic means so that the information is immediately available in print to workers on the receiving end of the shipment.
- **DOT Pictograms:** Where a DOT pictogram appears on a label for a shipped container, the appendix C pictogram for the same hazard is now allowed, but is not required, on the HCS label.
- **Label Updates:** Labels for chemicals must be revised within six months of becoming aware of any significant information regarding hazards of that chemical. Containers of the hazardous chemicals shipped after that time must be labeled with the new information. The HCS update includes some relief for relabeling, such as chemicals that have been released for shipment and are awaiting future distribution do not need to be relabeled.
- **Small Containers Labeling Provisions:** Labeling requirements are limited for containers for ≤ 100 milliliter (ml) capacity and ≤ 3 ml capacity.
- **Trade Secrets:** OSHA has updated Section 3 of safety data sheets to now allow concentration ranges to be withheld as a trade secret. When the concentration or concentration range is withheld as a trade secret, the chemical composition range would have to be provided in accordance with newly prescribed concentration ranges.





Physical and Health Hazard Classification Updates

HAZARD CLASSIFICATION

In Paragraph (d)(1), the requirements for chemical manufacturers and importers are outlined for the classification of chemicals, while Paragraphs (f) and (g) cover requirements for labeling and safety data sheets (SDSs). Although separate, these paragraphs are related, particularly after OSHA's aligning of the HCS with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) in 2012. Prior to this, OSHA requirements for labeling and SDS were more performance oriented but the shift to GHS introduced more prescriptive labeling and required all hazards to be identified. This was

an issue because the chemical hazards, as packaged by the manufacturer, differed from the hazards that were generated under use by downstream users. Manufacturers questioned how they should present the information on the label and the SDS.

To address this issue, in the OSHA final rule, the language has been updated to (d)(1):

- Acknowledges the hazard classification must include all hazards associated with the chemical's "intrinsic properties".
- Breaks down (d)(1) into (d)(1)(A) and (d)(1)(B) to differentiate the chemical hazards for the chemical as shipped (including changes in physical form) and hazards associated with chemical reaction products (known or reasonably anticipated) in downstream applications. OSHA believes this provides clarification on what hazards must be addressed and provides the necessary guidance on the information that needs to be on the label and the SDS.

OSHA indicated that this change reiterates the scope language under (b)(2) and OSHA's longstanding position that hazard classification must even cover hazards created by chemical reactions that occur during known or reasonable anticipated uses.

OSHA also discussed this extensively in the preamble of the revised Hazard Communication Standard, outlining not only when an upstream manufacturer must consider downstream use but also when that use would either be unknown/reasonably anticipated or when the downstream user becomes the manufacturer of a new chemical. OSHA does not consider that a manufacturer or supplier would be able to know or reasonably anticipate a downstream use if the downstream user uses the chemical in a proprietary process, producing derivatives that are trade secrets. In this case, the downstream user becomes the manufacturer.

Physical Hazards

Changes were made to improve the communication of hazards, such as realigning categories and adding new ones like desensitized explosives. The main changes can be found in flammable gases, aerosols, and oxidizing solids.

Explosives

OSHA has added two notes to the Explosive Hazard Class:

*Note 1: Acknowledges the new hazard class of Desensitized Explosives (B.17).

*Note 2: Indicates that a chemical may still have explosive properties even though they were exempt from classification as an explosive. In these cases, these properties must be communicated on the SDS.

One commenter noted that the GHS made major revisions to the Explosive Hazard Class classification criteria in GHS Revision 9. While OSHA declined to adopt the classification criteria from the revision due to lack of notice, OSHA did explain there is already flexibility built into the labeling for explosives and that in many cases following the GHS Revision 9 updates will result in full compliance with the HCS.

Flammable Gases

OSHA made significant changes to the Flammable Gases Hazard Class:

- Added two subcategories to this hazard class, pyrophoric gases, and unstable gases. The criteria indicated that if the gas is either pyrophoric or unstable it is also considered a category 1A flammable gas.
- Added a new subcategory 1B Flammable gas. Category 1B flammable gases fall into category 1 but have a lower flammability limit or a lower burn velocity.
- Since OSHA has added pyrophoric gases to the Flammable Gases Hazard Class, OSHA has now removed pyrophoric gases as a stand-alone hazard class.

Aerosols and Chemicals Under Pressure

OSHA also made significant changes to the Aerosol Hazard Class (formerly known as Flammable Aerosols).

- Added non-flammable aerosols to this hazard class. OSHA found that many aerosols also fell under Gases Under Pressure. This resulted in over warning on aerosol cans/cans, and it potentially dilutes the warning on gas cylinders.
- OSHA noted that chemicals under pressure were often the same chemicals in aerosols resulting in similar hazards but were in refillable containers which created a potential inconsistency in hazard warnings. In their revised Hazard Communication Standard final rule, OSHA adopted the nomenclature Chemicals Under Pressure.

Gases Under Pressure

Updated to acknowledge that aerosols are not additionally classified as gases under pressure.

Flammable Liquids

Updated to acknowledge that aerosols should not additionally be classified as flammable liquids.

OSHA has also updated the additional classification considerations to acknowledge flash point determination methods under 29 CFR 1910.106.

Flammable Solids

Updated to acknowledge that aerosols are not additionally classified as flammable solids.

Self-Heating Chemicals

OSHA added a note under the criteria indicated that classification of solid chemicals must be performed on the chemical in the specific form in which it occurs in the workplace.

Chemicals Which, in Contact with Water, Emit Flammable Gases

OSHA updated the criteria for category 3 to remove the term “equal to or” to read:

Any chemical which reacts slowly with water at ambient temperatures such that the maximum rate of evolution of flammable gas is **equal to or** greater than 1 liter per kilogram of chemical per hour, and which does not meet the criteria for Categories 1 and 2.

Oxidizing Gases

OSHA updated the Oxidizing Gases hazard class to include the new test O.3 (since the material for test O.1 is no longer available). No retesting needs to be done since data from either test is acceptable for classification purposes.

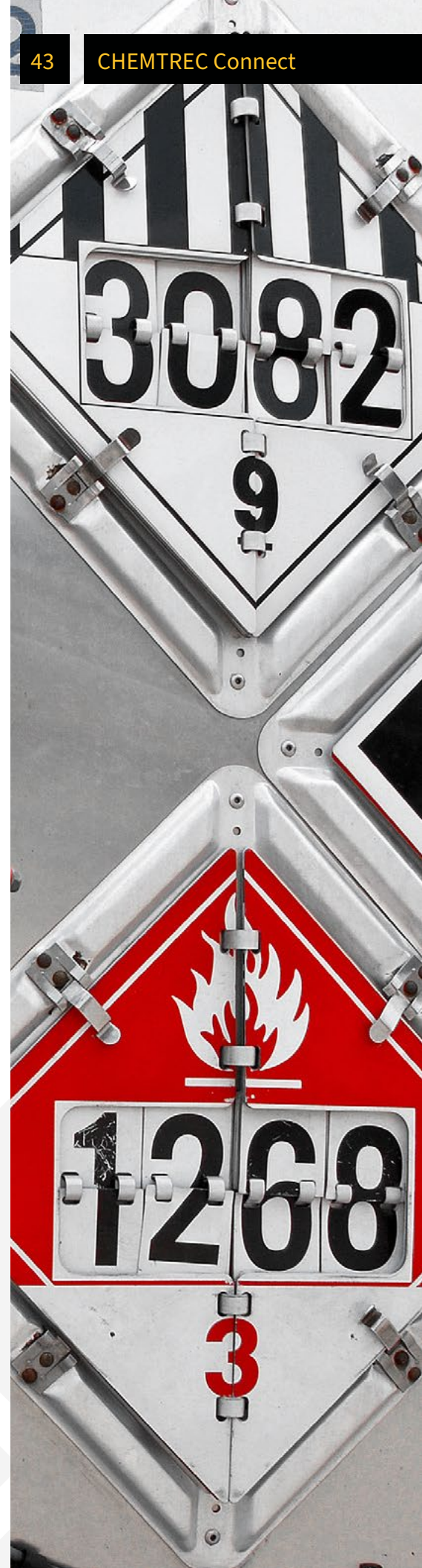
Desensitized Explosives

This hazard is another newly adopted OSHA hazard class.

ADDITION OF NEW HAZARD CLASS- DESENSITIZED EXPLOSIVES

Definition: explosives that must be wetted with water or alcohols, diluted with other substances, or dissolved or suspended in water or other liquid substances to suppress or reduce their explosive properties

Category	Criteria
1	Desensitized explosives with a corrected burning rate (A_C) equal to or greater than 300kg/min but not more than 1200kg/min
2	Desensitized explosives with a corrected burning rate (A_C) equal to or greater than 140kg/min but less than 300kg/min
3	Desensitized explosives with a corrected burning rate (A_C) equal to or greater than 60 kg/min but less than 140/min
4	Desensitized explosives with a corrected burning rate (A_C) less than 60kg/min



These types of chemicals can pose a hazard in the workplace when the stabilizer is removed, either as part of the normal work process or during storage of the chemical. Therefore, it is important that the hazards be identified and appropriately communicated.

Health Hazards

While there were some significant changes to several of the OSHA health hazard classes, OSHA does not expect major (if any) changes in the classification of existing chemicals.

Definitions

More general and neutral definitions are updated to provide clarification with respect to test guidelines (by removing guideline criteria from the definitions). For example, OECD test guidelines were removed from the definitions and moved to paragraphs outlining classification criteria. OSHA updated all the health hazard definitions to reflect these parameters.

Acute Toxicity

Some clarifying changes to the Acute Toxicity hazard class were made to align with GHS Revision 7. These changes include acknowledged newer in vivo methods can be used to assign acute toxicity

categories, updated presentation to Table A.1.1 and corrections to cross references.

Corrosive to the Respiratory Tract

OSHA clarified in Acute Toxicity hazard class that when classifying “corrosive to the respiratory tract” it should only be classified under acute inhalation toxicity if the data is based on lethality. OSHA is retaining the provision that if the classifier has data that indicates corrosion of the respiratory tract and the effect does not lead to lethality, then the hazard must be addressed in the STOT-SE (A.8) hazard class. If there are insufficient data to classify the hazard as STOT, and the classifier determines based on relevant skin and/or eye data that the chemical may cause corrosion of the respiratory tract, then the hazard statement “Corrosive to the respiratory tract” must be used in A.2 and/or A.3, as appropriate.

Unknown Acute Toxicity

OSHA updated a note to clarify the statement that “X” percent of the mixture consists of ingredient(s) of unknown acute (oral/dermal/inhalation) toxicity on the label and the SDS must be differentiated by route of exposure.



Skin and Eye Hazard Classes

Skin Corrosion and Skin Irritation

OSHA finalized Appendix A.2 to reflect the updates to GHS Revision 8.

Serious Eye Damage and Eye Irritation

In updating this hazard class to align with GHS Revision 7, one of the major clarifications was how to use pH data to clarify that high acid/alkaline reserve or no data for acid/alkaline reserve should be considered when the pH is ≤ 2 or ≥ 11.5 . OSHA also proposed modifications to the footnotes of Figure A.3.1 to reflect the most recent test methods.

Germ Cell Mutagenicity

OSHA removed the Mouse Spot Test (OECD 484) as an example of an in vivo somatic cell mutagenicity test.

Reproductive Toxicity

OSHA removed the reference to “breastfed babies” and replaced it with “classification for effects via lactation” to differentiate between effects that can interfere with lactation and substances and their metabolites that may be transmitted through breast milk to children in amounts sufficient to cause concern for the health of the breastfeeding child.

Relevant Ingredients

OSHA updated several hazard classes to clarify the use of relevant ingredients.

Specific Target Organ Toxicity (STOT) Single Exposure

OSHA added a new paragraph explaining that when using the additivity method for category 3 a relevant ingredient in a mixture is one that is present in concentrations greater than 1% (unless there is reason to suspect that an ingredient is relevant below 1%).

Aspiration Hazard

OSHA added a new paragraph to clarify the concept of relevant ingredients and that relevant ingredients are those present in concentrations of at least 1%.

For more details about what the Hazard Communication Standard includes, view the OSHA Hazard Communication Standard pdf.



Label Element Allocation and General Label Updates

WHAT DID NOT CHANGE

OSHA has maintained the fundamental label requirements, label elements or how the elements should be applied to the label. This means chemical manufacturers and importers will still be required to provide a label on each container leaving the workplace. For hazardous chemicals, labels must include a harmonized signal word, pictogram, and hazard statement for each hazard class and category as well as precautionary statements.

HCS PICTOGRAM CHANGES

OSHA has adopted minor changes in the allocation of pictograms:

- **The US Department of Transportation (DOT) placards:** OSHA has acknowledged that DOT updated their regulation permitting HCS pictograms on containers. Therefore, OSHA has updated the HCS to indicate, while not obligatory, that the HCS pictogram may be on a shipping container where a DOT placard denotes the same hazard.
- **Exclamation Mark pictogram:** OSHA has indicated that it will allow (but not require) the use of the Exclamation Mark pictogram for Hazards Not Otherwise Classified (HNOC) on a label. This change facilitates compliance with both U.S. and Canadian requirements for HNOC hazards, as Canadian regulations require a pictogram on the labels for their HNOC hazard classes.

LABELING ACCOMMODATIONS UPDATES

After OSHA updated the HCS in 2012, to align with the GHS, several challenges were identified

as companies were converting their labels to conform with the new requirements. This final rule addresses some of these challenges and offers accommodations for manufacturers, importers, and distributors.

- OSHA provided accommodation for when a manufacturer, importer, or distributor must physically relabel a container upon becoming aware of any significant information regarding the hazards of the chemical. While the label must be revised within six months, OSHA permits manufacturers to maintain the outdated label on a container that has been packaged and is awaiting future distribution, provided that updated labels are provided for each individual container within the shipment
- OSHA updated how manufacturers, importers, or distributors should label small containers (< 100 ml capacity) if it is not feasible to use the full label on the container (such as with the use of pull-out labels, fold-back labels or tags). OSHA has also provided accommodation for very small packages (< 3 ml) where the label interferes with the normal use of the container.
- OSHA had a long-standing policy allowing flexibility on labeling on bulk shipments where the immediate container is the mode of transportation (i.e., contained in tanker truck, rail car, or intermodal container). In this case, OSHA will allow the label to be either on the immediate container, transmitted with shipping papers, bills of lading, or transmitted by other technological or electronic means so that it is immediately available to workers in printed form on the receiving end of a shipment. In this final rule OSHA has codified this long-standing accommodation.

LABEL ELEMENTS CHANGES

In this OSHA final rule, in addition to adding the elements for the newly identified hazard classes such as desensitized explosives and chemicals under pressure, OSHA has made some changes in the instructions on how to apply the label elements.

- OSHA has indicated that the same pictogram may not be on the label multiple times. This means even if a specific pictogram is triggered by multiple hazards, it should only appear on the label once.
- OSHA has also finalized several changes related to precautionary statements:
 - Guidance on how the label preparer can combine multiple precautionary statements related to medical response.
 - Updated precautionary statements to align with GHS Revision 7. These changes were made to improve the applicability of the statements for the hazards either by updating the phrasing or conditions on when to apply the statements.
 - Updated the required elements on the label to specify that address and telephone of the responsible party on the label must be a U.S. address and U.S. telephone number. Finally, OSHA did not adopt the proposed requirement to add the “release for shipment date” on the label.

For more details about what the Hazard Communication Standard includes, view the OSHA Hazard Communication Standard pdf.



Safety Data Sheet Updates

SUMMARY OF UPDATES

(Changes from HCS 2012 to HCS 2024 have been bolded for your convenience)

Clarified the language in 29 CFR § 1910.1200 (g)(2) :

The chemical manufacturer or importer shall make sure that **the safety data sheet** is in English (although the employer may maintain copies in other languages as well), and includes at least the following section numbers and headings, and associated information under each heading, in the order listed under Appendix D (Safety Data Sheets-Mandatory Minimum Information).

Changes to Appendix D to 29 CFR § 1910.1200—Safety Data Sheets (Mandatory)

A safety data sheet (SDS) shall include the information specified in Table D.1 under the section number and heading indicated for sections 1-11 and 16. **While each section of the SDS must contain all of the specified information, preparers of safety data sheets are not required to present the information in any particular order within each section.** If no relevant information is found for any given subheading within a section, the SDS shall clearly indicate that no applicable information is available. Sections 12-15 may be included in the SDS, but are not mandatory.

Table D.1. Minimum Information for an SDS

(Changes from HCS 2012 to HCS 2024 have been identified in red in the table below)



<p>SECTION 1 Identification</p>	<p>(a) Product identifier used on the label;</p> <p>(b) Other means of identification;</p> <p>(c) Recommended use of the chemical and restrictions on use;</p> <p>(d) Name, U.S. address, and U.S. telephone number of the chemical manufacturer, importer, or other responsible party;</p> <p>(e) Emergency phone number.</p>
<p>SECTION 2 Hazard Identification</p>	<p>(a) Classification of the chemical in accordance with paragraph (d)(1)(i) of § 1910.1200</p> <p>(b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of § 1910.1200. (Hazard symbols may be provided as graphical reproductions in black and white or the name of the symbol, e.g., flame, skull and crossbones);</p> <p>(c) Hazards classified under paragraph (d)(1)(ii) of § 1910.1200;</p> <p>(d) Describe any hazards not otherwise classified that have been identified during the classification process;</p> <p>(e) Where an ingredient with unknown acute toxicity is used in a mixture at a concentration ≥1% and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity is required.</p>

<p>SECTION 3 Composition/Information on Ingredients</p>	<p>Except as provided for in paragraph (i) of § 1910.1200 on trade secrets:</p> <p>For Substances</p> <p>(a) Chemical name; (b) Common name and synonyms; (c) CAS number and other unique identifiers; (d) Impurities and stabilizing additives (constituents) which are themselves classified and which contribute to the classification of the substance.</p> <p>For Mixtures</p> <p>In addition to the information required for substances:</p> <p>(a) The chemical name, CAS number or other unique identifier, and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of § 1910.1200 and</p> <p>(1) Are present above their cut-off/concentration limits; or (2) Present a health risk below the cut-off/concentration limits.</p> <p><i>Note: When CAS number is not available or claimed as a trade secret, the preparer must indicate the source of unique identifier.</i></p> <p>(b) The concentration (exact percentage) shall be specified unless a trade secret claim is made in accordance with paragraph (i) of § 1910.1200, when there is batch-to-batch variability in the production of a mixture, or for a group of substantially similar mixtures (See A.0.5.1.2) with similar chemical composition. In these cases, concentration ranges may be used.</p> <p>For All Chemicals Where a Trade Secret is Claimed</p> <p>Where a trade secret is claimed in accordance with paragraph (i) of § 1910.1200, a statement that the specific chemical identity, and/or concentration (exact or range) of the composition has been withheld as a trade secret is required. When the concentration or concentration range is withheld as a trade secret, the prescribed concentration ranges used in § 1910.1200(i)(1)(iv)-(vi) must be used.</p>
<p>SECTION 4 First aid measures</p>	<p>(a) Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion; (b) Most important symptoms/effects, acute and delayed. (c) Indication of immediate medical attention and special treatment needed, if necessary.</p>
<p>SECTION 5 Fire-fighting measures</p>	<p>(a) Suitable (and unsuitable) extinguishing media. (b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products). (c) Special protective equipment and precautions for fire-fighters.</p>
<p>SECTION 6 Accidental release</p>	<p>(a) Personal precautions, protective equipment, and emergency procedures. (b) Methods and materials for containment and cleaning up.</p>
<p>SECTION 7 Handling and storage</p>	<p>(a) Precautions for safe handling. (b) Conditions for safe storage, including any incompatibilities.</p>
<p>SECTION 8 Exposure controls/ personal protection</p>	<p>(a) For all ingredients or constituents listed in Section 3, the OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit or range used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available. (b) Appropriate engineering controls. (c) Individual protection measures, such as personal protective equipment.</p>
<p>SECTION 9 Physical and chemical properties †</p> <p>† Note: To determine the appropriate flammable liquid storage container size and type, the boiling point shall be determined by methods specified under § 1910.106(a)(5) and then listed on the SDS. In addition, the manufacturer, importer, and distributor shall clearly note in sections 7 and 9 of the SDS if an alternate calculation was used for storage purposes and the classification for storage differs from the classification listed in section 2 of the SDS.</p>	<p>(a) Physical state. (b) Color. (c) Odor (includes odor threshold). (d) Melting point/freezing point. (e) Boiling point (or initial boiling point or boiling range). (f) Flammability. (g) Lower and upper explosion limit/flammability limit. (h) Flash point. (i) Auto-ignition temperature. (j) Decomposition temperature. (k) pH. (l) Kinematic viscosity. (m) Solubility. (n) Partition coefficient n-octanol/water (log value). (o) Vapor pressure (includes evaporation rate). (p) Density and/or relative density. (q) Relative vapor density. (r) Particle characteristics.</p>

SECTION 10 Stability and Reactivity	(a) Reactivity; (b) Chemical stability; (c) Possibility of hazardous reactions, including those associated with foreseeable emergencies ; (d) Conditions to avoid (e.g., static discharge, shock, or vibration); (e) Incompatible materials; (f) Hazardous decomposition products.
SECTION 11 Toxicological information	Description of the various toxicological (health) effects and the available data used to identify those effects, including: (a) Information on the likely routes of exposure (inhalation, ingestion, skin, and eye contact); (b) Symptoms related to the physical, chemical, and toxicological characteristics; (c) Delayed and immediate effects and also chronic effects from short- and long-term exposure; (d) Numerical measures of toxicity (such as acute toxicity estimates); (e) Interactive effects; information on interactions should be included if relevant and readily available ; (f) Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA. (g) When specific chemical data or information is not available, the preparer must indicate if alternative information is used and the method used to derive the information (e.g., where the preparer is using information from a class of chemicals rather than the exact chemical in question and using SAR to derive the toxicological information).
SECTION 12 Ecological information (Non-mandatory)	(a) Ecotoxicity (aquatic and terrestrial, where available); (b) Persistence and degradability; (c) Bioaccumulative potential; (d) Mobility in soil; (e) Other adverse effects (such as hazardous to the ozone layer).
SECTION 13 Disposal considerations (Non-mandatory)	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.
SECTION 14 Transport information (Non-mandatory)	(a) UN number; (b) UN proper shipping name; (c) Transport hazard class(es); (d) Packing group, if applicable; (e) Environmental hazards (e.g., Marine pollutant (Yes/No)); (f) Transport in bulk (according to IMO instruments) (g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
SECTION 15 Regulatory information (Non-mandatory)	Safety, health and environmental regulations specific for the product in question.
SECTION 16 Other information, including date of preparation or last revision	The date of preparation of the SDS or the last change to it.

For more details about what the Hazard Communication Standard includes, view the OSHA Hazard Communication Standard pdf.



Answering Your Questions About OSHA HCS Updates

1. WHAT ARE THE KEY CHANGES MADE TO THE OSHA HAZARD COMMUNICATION STANDARD?

OSHA's update to the Hazard Communication Standard can roughly be categorized into four main areas:

- I. Updated to maintain alignment with the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (Primarily Revision 7)
 - II. Addressed issues identified during implementation of HCS 2012
 - III. Addressed issues of concern for those complying with WHMIS 2015
 - IV. Improved alignment with other U.S. agencies
- These changes will primarily affect classifications, label allocations and Safety Data Sheets (SDS).

2. WAS THERE A CHANGE MADE TO REQUIRE A U.S. PHONE NUMBER AND U.S. ADDRESS ON THE SAFETY DATA SHEET FOR THE RESPONSIBLE PARTY?

OSHA has adopted minor changes in the allocation of pictograms:

This change is not a new requirement, but clarifies the previously existing requirements of Appendix D, which requires that the name, address, and telephone number of the responsible party, such as the chemical manufacturer or importer, be listed on the SDS. OSHA explained in a 2016 Letter of Interpretation (LOI) that when chemicals are imported into the United States, the importer (defined by the HCS as being the first business with employees in the United States to receive hazardous chemicals produced in other countries for distribution in the United States) is the responsible

party for purposes of compliance with the HCS and is required to use a U.S. address and U.S. phone number on the SDS. [Click here](#) to see other changes and clarifications to Appendix D.

3. WHAT ARE THE SPECIFIC TRAINING REQUIREMENTS MANDATED BY THE REVISED OSHA HCS STANDARD? HOW DO THESE DIFFER FROM PREVIOUS TRAINING OBLIGATIONS?

There are no specific training requirements in this final rule. However, when a new chemical hazard is present that an employee has not received training for, the employers need to update the training. OSHA has acknowledged that employers may need to do some additional training if a hazard is newly identified due to this final rule and has provided an extra six months to do this training as well as update their written hazard communication program and workplace labeling if necessary.

4. DOES THE REVISED HAZARD COMMUNICATION STANDARD INTERACT WITH OTHER STANDARDS OR REGULATIONS THAT BUSINESSES NEED TO COMPLY WITH?

There is no direct interaction between the HCS and other standards. However, OSHA strives to be compatible with other regulations that have labeling requirements either by acknowledging these requirements in paragraph (b), scope and application, of the HCS such as consumer products. OSHA also will work with other agencies on compliance with their regulations such as with EPA's pesticide labeling requirements and the safety data sheet (PRN 2012-1: Material Safety Data Sheets as Pesticide Labeling | US EPA) and EPCRA sections 311 and 312 ([osha_hcs_factsheet.pdf](#) ([epa.gov](#))).

5. WAS THERE ANY CONSULTATION WITH INDUSTRY STAKEHOLDERS DURING THE REVISION PROCESS? HOW DID THEIR INPUT INFLUENCE THE FINAL CHANGES?

Throughout the rulemaking process OSHA requests and receives comments from stakeholders.

In the Proposal, OSHA requested comments not only on the proposed rule but also on various issues and alternatives. Additionally, OSHA held an informal public hearing so stakeholders could provide testimony. During the rulemaking process, OSHA received over two hundred comments. OSHA reviewed the comments and testimony and then based the final rule on the record. Through this process, OSHA made some significant changes from the proposal to the final rule. First it removed the proposed requirement to have the date of “release for shipment” on the label, it also revised the proposed language for the clarification in (d)(1) to address stakeholders concerns and it finalized a few changes from revision 8 (the skin and eye update to better incorporate non-animal testing and adopting the hazard classification of chemicals under pressure).

6. DOES THIS REQUIREMENT IMPACT SOME INDUSTRIES MORE THAN OTHERS?

This update mainly addresses classifications, labels and SDSs, therefore chemical manufacturers, importer and distributors will be the most impacted.

7. ARE THERE ANY EXEMPTIONS OR SPECIAL CONSIDERATIONS FOR SPECIFIC INDUSTRIES OR SUBSTANCES?

There are no specific exemptions or special considerations for specific industries or substances per se. However, many of the flexibilities that OSHA finalized in the final rule were from issues that arose during the implementation of HCS 2012. For instance, OSHA requirements for small packages when a full label is not feasible was a result of issues presented to OSHA after the implementation of the HCS 2012.

8. HOW SHOULD EXISTING CHEMICAL INVENTORIES AND SDSS BE UPDATED?

Companies can start by reviewing their current Written Hazard Communication Program which includes the chemical inventory. This will lay the groundwork for any potential future updates. As

new SDSs and labels become available companies should keep track of any potential changes so they can update their program, provide any necessary training or update workplace labels, if necessary, by the compliance dates.

9. WHAT RESOURCES ARE AVAILABLE TO HELP WITH COMPLIANCE?

OSHA is set to update their guidance materials and enforcement directive to support implementation of the final rule. However, there are many resources available to aid in classification of substances. Caution should be used to ensure that the lists are compatible with OSHA’s classification criteria.

Some of these resources include:

- NIOSH pocket guide:



- OECD echem portal:



- ILO-WHO International chemical safety cards:



- Canada’s Categorization of chemical substances:



CHEMTREC is also here to help you with your compliance needs, especially when it comes to Safety Data Sheets and training.

10. ARE THERE ANY ANTICIPATED CHALLENGES OR HURDLES THAT BUSINESSES MIGHT FACE WHEN IMPLEMENTING THESE REVISIONS?

The biggest hurdle is time. Despite OSHA giving over 4 years for complete compliance with the revised standard, this time goes quickly.

11. WHAT IS THE DEADLINE FOR COMPLIANCE?


OSHA has multiple compliance dates, please see the table on this page to learn more.

Compliance Date	Requirement	Who
January 19, 2026	Update labels and SDSs for substances	Chemical manufacturers, importers, distributors, and employers
July 20, 2026	Update workplace labels, hazard communication program, and training as necessary for substances	Employers
July 19, 2027	Update labels and SDSs for mixtures	Chemical manufacturers, importers, distributors, and employers
January 19, 2028	Update workplace labels, hazard communication program, and training as necessary for mixtures	Employers
May 20, 2024	May comply with either 29 CFR 1910.1200 (this final standard), or the current standard, or both	Chemical manufacturers, importers, distributors, and employers

Please note: These are CHEMTREC opinions and should not be taken as OSHA's interpretation. This blog's main purpose is to inform readers of the published Hazard Communication Standard. Contact sales@chemtrec.com to learn how CHEMTREC can help you comply with the new OSHA HazCom Standard updates.



Why Taking the New OSHA HazCom Training is Critical After the New Regulation



In the world of occupational safety, staying ahead of the curve is not just advantageous—it's essential. With OSHA's new Hazard Communication Standard (HazCom) that took effect on July 19, 2024, there is a pressing need for employers and employees to update their knowledge and practices to be fully compliant with the new HazCom standard. Taking CHEMTREC's recently revised HazCom online training course is not just recommended, but critical.

Here's why you need this course:

OSHA's HazCom Standard is designed to protect workers by mandating that employers provide vital information about hazardous chemicals. This is essential for employees, contractors, and temporary workers who may be exposed to these chemicals under normal working conditions or foreseeable emergencies. The scope of required HazCom training is intentionally broad, highlighting the importance of comprehensive education and preparation.

OSHA emphasizes that while workers are not expected to memorize all data about each hazardous chemical, they must understand their exposure, know how to protect themselves, know how to read labels and Safety Data Sheets (SDSs), and comprehend the information provided in these documents. It's crucial that they know how to access these tools effectively.

UNDERSTANDING THE UPDATED OSHA HAZCOM REGULATIONS

The recent changes in the HazCom standard reflect an evolving understanding of workplace hazards and

the recommended practices for mitigating them. The updated standards align more closely with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), providing consistency and clarity in hazard communication worldwide.

By taking the new HazCom training course, you will:

- 1. Stay Compliant:** Compliance with OSHA's Hazard Communication Standard (HCS) is legally required. The new regulation has introduced specific changes in labeling, Safety Data Sheets (SDS), and classification criteria. Understanding these changes is essential to avoid penalties. For more details, check out our blog post on OSHA's Revised Hazard Communication Standard, which explains these updates in depth. (internal link to our blog)
- 2. Enhance Workplace Safety:** The primary goal of HazCom is to prevent injuries and illnesses related to chemical exposure. The new regulation provides clearer, more detailed information on chemical hazards, which can significantly reduce the risk of accidents. By taking the course, employees learn to recognize and respond to hazards more effectively.
- 3. Improve Communication and Understanding:** One of the major benefits of HazCom is the standardization of labels and Safety Data Sheets (SDSs). The updated HazCom includes revised information that is required on labels and Safety Data Sheets (SDSs). This improved uniformity helps eliminate confusion and misinterpretation of hazards.

KEY COMPONENTS OF THE NEW OSHA HAZCOM TRAINING COURSE (H2)

The new HazCom training course is designed to provide comprehensive training on all aspects of the updated HazCom standards. The key components include:

- 1. Labeling Requirements:** Understanding the new standardized label elements, including pictograms, signal words, hazard statements, precautionary statements, and product

identifiers. This section helps employees quickly and accurately identify the nature and severity of chemical hazards.

- 2. Safety Data Sheets (SDS):** The course details the 16-section format of the SDS, which provides critical information about chemical properties, health hazards, protective measures, and safety precautions, as well as highlighting the new requirements under the HazCom. Learn how to read and interpret these sheets to understand proper handling and emergency response.
- 3. Chemical Classification:** Training covers the updated criteria for classifying chemicals according to their health and physical hazards. This knowledge is vital for those involved in handling, storing, and disposing of hazardous substances.

With the final rule in effect, compliance with OSHA HazCom training requirements is not only a legal obligation but a critical step in safeguarding your workforce. Our updated training equips employees with the knowledge and skills needed to navigate the complexities of chemical hazards, ultimately creating a culture of safety and responsibility.

Don't wait — enroll in CHEMTREC's OSHA HazCom training course today and take a proactive step toward a safer tomorrow.

CHEMTREC's Updated OSHA HazCom Training Available Fall 2024



Purchase All Online Hazmat Training Courses at hazmatsafetytraining.com.



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3130 Fairview Park Drive, Falls Church, VA 22042
www.chemtrec.com