Occupational Safety and Health / Industrial Safety and Disaster Prevention

Basic Stance

Reflecting the core principle of "Making safety our first priority," the Sumitomo Chemical Group has formulated five fundamental and personal safety principles that each employee is expected to follow as well as guidelines based on the core principle. All Group employees and all involved parties, including partner companies, are thus united in promoting safety and health activities based on international standards (including occupational safety and health management systems*1 and machinery safety) with the goal of eliminating all accidents.

Although activities to enhance a culture of safety have taken root, we currently have not entirely eliminated severe accidents, including those resulting in fatalities. It is therefore important that we measure the level of safety culture reached by each workplace and constantly strive to make improvements as we strive to foster a culture where safety is a given. Furthermore, the Group undertakes stringent process risk assessments of the entire life cycle (development, manufacture, distribution, use, disposal), and takes appropriate safety measures based on its evaluation of risks. The aim of these efforts is to prevent unforeseen industrial accidents, including fires, explosions, and the leakage of hazardous substances, and to minimize damage in the event of a natural disaster such as a major earthquake.

Sumitomo Chemical has acquired the international standard ISO 45001 and OSHMS certification at its worksites. In addition, the Company implements PDCA cycles that support a host of measures on the path to realizing improvements based on risk assessments. These safety-related measures and their results are reviewed at the end of each fiscal year by the Responsible Care Committee, which is headed by the President. The reviews ensure a continuous connection to future fiscal years' cycles, thereby strengthening safety and health activities that prevent accidents. In addition, we will further strengthen our safety infrastructure by carefully managing our facilities and construction projects, providing advanced training for safety-related personnel, and introducing sophisticated risk assessment methods and cutting-edge technologies, including IoT, to bolster our employee safety and industrial safety management technologies. We will also prepare our responses to new threats, such as intensifying natural disasters and terrorism.

*1 ISO (International Organization for Standardization) 45001 and JISHA (Japan Industrial Safety and Health Association) OSHMS (Occupational Safety and Health Management System) Standards equivalent to OHSAS (Occupational Health and Safety Assessment Series) 18001

Core Principle: Making Safety Our First Priority

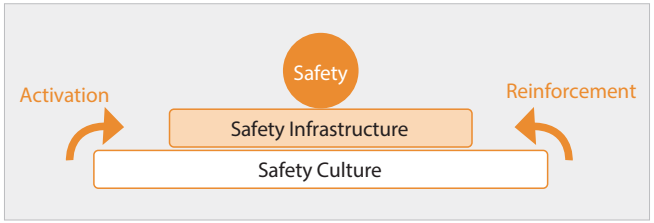
Raison D'être for the Core Principle

1. Line management is fundamental to Safety and Health.
2. Each person is responsible for Safety and Health.
3. Sumitomo Chemical is united with partner companies on Safety and Health.

Five Fundamental and Personal Safety Principles that Each Employee is Expected to Follow.

- I will give safety and health the top priority in every aspect of business.
- I will identify and resolve safety and health issues at the source.
- I will comply with rules and instructions.
- I will act with safety in mind 24 hours a day, not just during working hours.
- I will cooperate with all involved parties, including partner companies, to ensure safety and health.

■ Illustration of How We Ensure Safety through Safety Infrastructure and Safety Culture



Management System

The President serves as the chief coordinator and the executive officer in charge of Responsible Care serves as the coordinator of the Safety Group of the Responsible Care Department. This group is responsible for matters related to safety, health, industrial safety, and disaster prevention of the Company as a whole and supports the safety, health, industrial safety, and disaster prevention activities of Group companies. To assess the safety, health, and industrial safety management status and to consider measures for improvement, the safety, health, industrial safety, and disaster prevention departments of each worksite and Group company regularly meet and exchange information. In these and other ways, relevant departments work together to steadily enhance the level of safety, health, industrial safety, and disaster prevention activities.

In addition, Safety and Health Committees*2 (called the Safety & Health Committee at some worksites) comprising labor and management representatives are convened every month at each worksite of Sumitomo Chemical and Group companies in Japan. The committees investigate and deliberate matters related to safety and health risks to all employees at worksites and promotes specific measures in unison with labor and management. The minutes of the meetings of these committees are shared with all employees within the worksites. Group companies overseas also share policies and initiatives related to safety, health, industrial safety, and disaster prevention through the Global Meeting and other meetings.

*2 Worksites with 50 or more employees

Organization of Responsible Care

Goals and Results

Occupational Safety and Health

The Sumitomo Chemical Group*1 targets a frequency rate of lost-workday injuries*2 of under 0.1, but its rate was 0.21 in fiscal 2024, or a total of 16 injuries, failing to meet the target. Moreover, while the Group has set a goal of zero severe accidents,*3 a contractor at a Sumitomo Chemical facility recorded no severe accidents in fiscal 2024, the same number of severe accidents as the previous fiscal year, achieving the target. On a non-consolidated basis, Sumitomo Chemical recorded a frequency rate of 0.30 (lost-workday injuries: 5) and a severity rate of 0.006 in fiscal 2024, while contractors and other affiliate companies recorded a frequency rate of 0.12 (lost-workday injuries: 1) and a severity rate of 0.002.

Goals and Results

Items	Boundary	FY2024 Goals	FY2024 Results	FY2025 Goals
Lost-workday injuries	Sumitomo Chemical	0	5	0
	Sumitomo Chemical contractors (including others)	0	1	0
Frequency rate of lost-workday injuries*2	Sumitomo Chemical Group*1	Less than 0.1	0.21	Less than 0.1
Severe accidents*3	Sumitomo Chemical Group*1	0	0	0

Lost-workday Injuries (Sumitomo Chemical Group*1)

	Boundary	FY2020	FY2021	FY2022	FY2023	FY2024
Number of injuries (including fatalities)	Sumitomo Chemical	2	1	2	3	5
	Sumitomo Chemical contractors (including others)	5	6	6	4	1
	Domestic consolidated subsidiaries	17	11	16	8	6
	Overseas consolidated subsidiaries	16	8	20	8	4
	Total	40	26	44	23	16

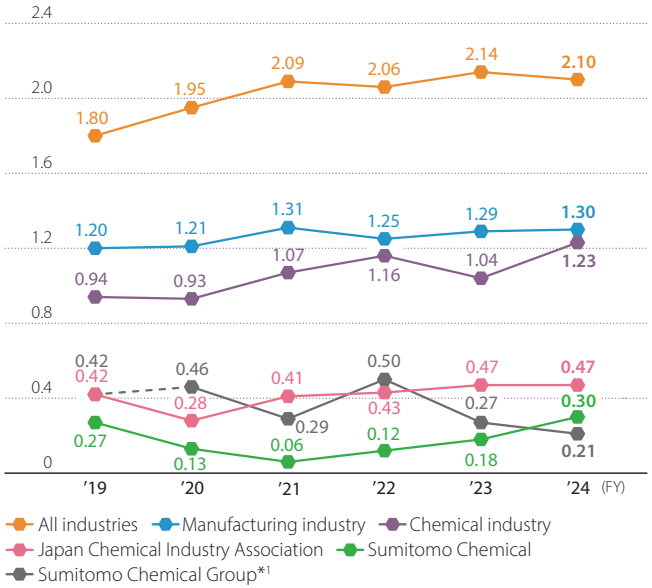
Note: A partner company injury is defined as one suffered within a Sumitomo Chemical worksite by an employee of a company affiliated with a subcontractor (including construction and logistics companies) or other company (including spot construction-related companies and delivery companies not included in an association).

*1 The Sumitomo Chemical Group as defined for occupational safety and health:
Until FY2019: Sumitomo Chemical (including contractors) and consolidated Group companies in Japan and overseas.
From FY2020 onward: Sumitomo Chemical (including contractors) and consolidated subsidiaries in Japan and overseas.

*2 Scope of frequency rate: Employees of Sumitomo Chemical (including contractors) and consolidated subsidiaries, including temporary employees, part-time staff, and dispatch employees.
Calculation of hours worked: For the number of hours worked by consolidated Group subsidiary employees, the Company uses an estimate reached by multiplying the number of employees by 1,928 hours (Sumitomo Chemical's standard number of hours worked annually). (For the number of hours worked by Sumitomo Chemical employees (non-consolidated) and contractors, the Company uses the actual number of hours recorded.)

*3 Severe accidents are defined as those that result in a fatality or those that result in severe lost-workday injuries, including blindness and loss of a limb.

Frequency Rate of Lost-workday Injuries



Disaster Prevention

Regarding the fatal accident at the Ehime Works in November 2021, all management executives and employees have gravely accepted the seriousness of this accident, identified problems, and thoroughly debated preventive countermeasures. We have implemented the following initiatives.

We reaffirm the core principle of "Making safety our first priority," are keenly aware of our mission to protect precious life, and will continue working with all our might to ensure this kind of tragic accident never occurs again.

(1) Revisions were made to the Development and Commercialization Regulations to include a method for taking intrinsic safety into account. A review meeting that confirms fundamental safety has been newly established and is being carried out.

(2) Using a third-party agency, we perform partnership surveys with each of our partner companies and implement necessary measures.

(3) Having performed a zero-based review of our safety-related activities to date, we continuously carry out these activities within the framework of our management system. In addition, to prevent a recurrence at Ehime Works, we are promoting facility countermeasures, including those to address root causes.

Industrial Safety and Disaster Prevention

The Sumitomo Chemical Group*1 achieved the target of "no severe industrial accidents"*2 in fiscal 2024, recording zero severe industrial accidents.

In addition, there were six industrial accidents, which are minor accidents whose scale does not reach that of a severe industrial accident, in fiscal 2024. We will work to enhance industrial safety management and quickly share the causes of the minor industrial accidents and the lessons learned across the entire Sumitomo Chemical Group.

Goals and Results

Items	Boundary	FY2024 Goals	FY2024 Results	FY2025 Goals
Severe industrial accidents*2	Sumitomo Chemical Group*1	0	0	0

Severe Industrial Accidents (Sumitomo Chemical Group*1)

	FY2020	FY2021	FY2022	FY2023	FY2024
Number of severe industrial accidents	0	1	0	2	0

*1 The Sumitomo Chemical Group as defined for industrial safety and disaster prevention: Sumitomo Chemical (including contractors) and consolidated Group companies in Japan and overseas.

*2 "Severe industrial accidents" refers to any of the following workplace incidents:
- Accidents that cause injuries to local residents requiring outpatient/hospital treatment
- Accidents that result in lost-workday injuries to workers on the site
- Accidents that result in equipment and facility damage exceeding 10 million yen

Examples of Initiatives

Occupational Safety and Health

Sumitomo Chemical thoroughly investigates the causes of each accident and works to prevent accidents by taking such measures as ensuring strict adherence to safety rules, providing hazard prediction training, also known as Kiken Yochi Training (KYT), and sharing accident information. In addition, we are working to raise safety awareness among all partner companies that enter our Works and research laboratories by distributing pocket-size cards and entrance certificates that feature the ground rules and core principles of safety as we promote our initiative of "Making safety our first priority."

Ensuring Thorough Compliance with the Sumitomo Chemical Group's Basic Safety Rules (Ground Rules)

In light of trends in the causes of accidents, the Group has established the following ground rules and is working to ingrain safe behavior.

1. Think Before You Act!
2. Help each other to be more aware of unsafe actions
3. Do not place hands in or around areas of working machinery/equipment

Improving Hazard Prediction Abilities

We are working to improve employees' hazard prevention ability—their ability to perceive and avoid danger—through, for example, behavior-based safety training and workplace discussions using illustrations.

Sharing and Using Accident Data

The Group shares information about all accidents mainly for use in safety education and comprehensive on-site investigations. When an accident occurs, we conduct a thorough examination of the causes and organize studies on how to prevent recurrences through on-site inspections with the top management of the affected workplace and safety managers.

Awards for Safety

Safety awards are given to workplaces (Works and research laboratories) that achieve zero lost-workday injuries. The President's Award for workplace safety is presented to workplaces with both a solid safety track record and good practices for safety and health, which could be an example to other workplaces. The President's Award was given to eight workplaces in fiscal 2024.

Safety Promotion through In-house Magazine, Slogan and Poster

Since fiscal 2013, in our in-house magazine entitled "Raising the Level of Safety!" (renamed "Learn through Manga! Promoting a culture of safety" since fiscal 2019), we have introduced examples of accidents that tend to happen at work and their preventive measures in a series of articles on enhancing safety.

Preventing Severe Accidents in Subcontracted Operations and Construction Operations

Sumitomo Chemical is taking action across the Company to ensure the safety and health of all involved parties, including partner companies. For example, one of the key initiatives outlined in the "Fiscal 2022 to Fiscal 2024 Medium-Term Plan for Responsible Care Activities" and "Fiscal 2024 Annual Responsible Care Policy" is responding to changes in employment structure, working to establish a foundation to ensure work safety and health, and promoting measures to prevent severe accidents in subcontracted operations and construction operations. We also conduct thorough risk assessments.

Risk Assessment of Chemical Substances

Sumitomo Chemical and all Group companies in Japan* that handle chemical substances conduct risk assessments of chemicals based on the Industrial Safety and Health Act and strive to reduce the risk of crises caused by chemicals.

* The percentage of worksites that conducted assessments at Sumitomo Chemical and Group companies in Japan is 100%.

Industrial Safety and Disaster Prevention

Risk Management Initiatives

Sumitomo Chemical manages risks related mainly to process safety, chemical (raw materials, products) safety, and occupational safety and health at each stage from new chemical process R&D through the commercialization process to plant design, construction, operation, maintenance, and even demolition. The items and procedures essential to risk management are specifically outlined in the Product Development Regulations, the Safety Management Rules, the Chemical Safety Management Regulations, and other similar documents that provide the standards for the Company. In addition, we introduced this system to major consolidated subsidiaries as part of efforts to enhance safety management across the entire Group.

■ Risk Management (Three Routes)

① Evaluation of New Processes

The Process Safety Review Meeting (levels 1 to 5) convenes at every step, from R&D through to industrial-scale production. These meetings are held to identify risks related mainly to process safety and chemical safety, to review risk assessment results as well as to determine whether safety countermeasures are appropriate. This mechanism ensures that processes do not proceed to the next step unless adequate safety has been confirmed. Furthermore, before starting operations, the meeting conducts safety reviews to assess responses to risks related to occupational safety and health. For example, the meeting confirms the absence of problems in the operational environment (including temperature, noise, vibration, etc.), if safety signs are appropriately displayed, if necessary personal protective equipment and ample equipment and materials for emergency have been secured, and whether there is sufficient preparation of and education regarding instruction manuals.

② Management of Changes

When certain changes are made to, for example, improve plant facilities or modify operating conditions, the Company conducts all necessary safety assessments before such changes are made to confirm whether there are new risks related mainly to process safety, chemical safety, and occupational safety and health following the changes and to, as needed, consider additional safety measures.

③ Regular Review of Existing Processes

Even when there is no change in the process, Sumitomo Chemical conducts regular process hazard reviews (no more than every five years, as a general rule) to catch up with the latest information on industrial safety technologies and to check whether there will be a significant impact from the long-term use of a plant. In addition, in our internal audits conducted every year for each workplace, we check whether or not safety management systems are functioning appropriately.

Preparation for Large-Scale Natural Disasters

Sumitomo Chemical drew up a basic plan on earthquake countermeasures in 2004, taking the initiative to improve the earthquake resistance features of equipment that was especially susceptible to the risk of damage. Furthermore, in accordance with recent directives by government authorities to improve the seismic adequacy of existing facilities, we made a plan to obtain required earthquake-resistant features of critical high-pressure gas equipment and are carrying out reinforcements and reconstruction in line with the plan. Before carrying out this work, we took measures to reduce risk and ensure safety, such as reducing the volume of gas held in equipment in order to decrease its weight and meet the earthquake resistance criteria.

In addition, as natural disasters continue to grow more extreme, including the typhoons and torrential rains seen in recent years, we continually review the current status of our safety measures to ensure they are adequate and take measures aimed at securing facilities and personnel as necessary. Furthermore, we confirmed that even in the event of flooding inside a plant due to a typhoon or torrential rain, the risk of the following is low: a loss of power to the plant's cooling facilities or water-reactive substances inside the warehouse coming into contact with water causing large-scale fires and explosions that could cause trouble for neighboring residents.

Safety Education and Drills

Sumitomo Chemical has a variety of industrial safety educational programs that reflect the operational roles of employees throughout the Company. The programs are aimed at bolstering the ability of employees to acquire knowledge and skills in order to ensure process safety. In addition, we provide safety education to Group companies in Japan suited to each company's needs.

At each of their worksites, Sumitomo Chemical and Group companies conduct education when necessary regarding operational details, substances handled, and the setup of protective equipment for operators who need to consider occupational health and safety in situations such as operations in high places, operations in hazardous places with poor oxygen, operations in high or low temperature environments, operations in high-noise environments, and operations handling specified chemical substances and organic solvents. In addition, special health assessments are made, operational environments are monitored, and workplace patrols are regularly conducted by occupational physicians and health inspectors as we strive to upgrade and maintain operational environments.

Examples of Safety Education and Drills at Sumitomo Chemical Worksites

Safety Education Examples	Safety and health training for new employees, newly appointed supervisors, and newly appointed managers; briefings on laws and regulations (Industrial Safety and Health Act, High Pressure Gas Safety Act, Fire Service Act, etc.), health management system education, safety and health seminars (protective equipment, etc.), hazard experience training (exposure to liquids, squeezing, falling, etc., includes VR training materials.), hazard prediction training, also known as Kiken Yochi Training (KYT), training in accident analysis methods (the five whys, etc.) safety and health education in officers, traffic safety education, etc.
Safety Drill Examples	Petrochemical complex integrated emergency response drills (municipalities, companies in petrochemical complex districts), earthquake and tsunami evacuation drills, joint firefighting drills with specialized firefighting teams and workplace firefighting teams, drills using fire extinguishers and fire hydrants, drills on lifesaving procedures (AEDs, etc.), drills on emergency contacts at night and on holidays, etc.

In addition, for everyone at partner companies conducting operations within our worksites (works, research laboratories), we provide safety education for entering worksites (basic policy on safety, basic rules inside worksites, etc.), construction supervisor training (supervisor obligations, risk assessments, etc.), hazard experience training, and more.

FY2024 Main Safety Education Programs (Company-wide Education)

Name	Type	Purpose	Boundary	Participants
Disaster Prevention Theory	E-learning	Promoting the acquisition of basic knowledge regarding industrial safety and disaster prevention for fires, explosions, reaction hazards, static electricity, etc.	Sumitomo Chemical (Works, research laboratories)	101
			Group companies in Japan	4
Fire and Explosion Training	Group training and self-study	Promoting the acquisition of knowledge to prevent accidents and perceive hidden dangers in the workplace through hands-on training related to fires and explosions	Sumitomo Chemical (Works, research laboratories)	185
			Group companies in Japan	37
HAZOP* Training	Group training	Training personnel to learn the basics of HAZOP and to be able to conduct HAZOP	Sumitomo Chemical (Works, research laboratories)	41
			Group companies in Japan	3
Safety Engineer Training Course	Group training and self-study	Training personnel who have central roles in uncovering process hazard sources, carrying out appropriate risk assessments, crafting safety measures, and effectively reducing risks	Sumitomo Chemical (Works, research laboratories)	13
			Group companies in Japan	2

* HAZOP:
A method of assessing process hazards that was developed with the aim of uncovering all latent hazards in chemical processes, assessing those impacts and results, and considering necessary safety measures.

Industrial Safety Action Plan

In a bid to step up efforts aimed at promoting industrial safety, industry organizations came together with the Japan Petrochemical Industry Association to draw up an industrial safety action plan in July 2013 that is revised every year. Here we introduce the Company's initiatives based on the action plan.

(1) Commitment by Top Management to Industrial Safety

- Sumitomo Chemical has established its basic stance toward responsible care as "providing safety and peace of mind to our stakeholders through thorough compliance" under its Responsible Care Plan (FY2025–2027).
- The President issues a safety week message to all employees and Group companies in Japan and overseas to coincide with National Safety Week, which begins on July 1 each year.
- We have held the President's Awards for workplace safety on a continuous basis since fiscal 2012.

(2) Setting Industrial Safety Targets

- Each year, Sumitomo Chemical sets targets for a variety of key parameters, including the elimination of all accidents resulting in lost workdays as well as all severe industrial accidents. The Company engages in a broad spectrum of activities aimed at achieving these targets.

(3) Drawing Up an Action Plan to Secure Industrial Safety

- Sumitomo Chemical pursues activities aimed at thoroughly identifying industrial safety risks that encompass regular and irregular operations.
- Sumitomo Chemical has introduced an internal certification and qualification system related to process risk assessment (safety engineer (SE)).
- Sumitomo Chemical promotes smart security utilizing such new technologies as AI and IoT.

(4) Checking and Evaluating Progress toward Achieving Targets and Implementing Measures

- The Responsible Care Committee reviews progress toward the achievement of targets and the implementation of measures. Findings under this review are reflected in the plan for the next fiscal year.

(5) Initiatives Aimed at Promoting Voluntary Safety Activities and the Fostering of a Culture of Safety

- The Sumitomo Chemical Group established the ground rules related to safety and strives to foster a culture of safety.
- Sumitomo Chemical designates one day each month as a "safety day" in an effort to continuously focus the attention of the entire Group on the importance of industrial safety.
- Academic experts conduct seminars and undertake an evaluation of safety assurance capabilities by the Process Safety Competency Center of Japan Society for Safety Engineering.

Logistics Initiatives

The Sumitomo Chemical Logistics Partnership Council was formed by Sumitomo Chemical and the logistics subcontractors (112 companies) for Sumitomo Chemical and its Group companies in Japan with the core principle of "Making Logistics Safety the First Priority." The Council maintains committees for Works in each area as well as for stock points (transport and storage) and marine transport-related operations nationwide. The Council is expanding the Logistics Department's responsible care activities. In fiscal 2024, we conducted discussions, such as exchanges of opinions, to further strengthen our partnerships with logistics subcontractors, and focused on further promoting the activities of this council.

In terms of health and safety, there were no accidents resulting in lost workday injuries, so we did not achieve zero accidents. We will continue to review operational risks and further improve the level of safety and health management.

In addition, as for industrial safety and disaster prevention, we present our logistics subcontractors with transport standards to ensure safety, such as safety management rules related to the land and marine transport of hazardous substances, and strictly ensure the rules are followed. We built a system under which we cooperate with logistics subcontractors even during critical times when an accident occurs to quickly arrive at the crisis site and address the situation as well as a system that enables rapid response to accidents, to this end joining the Hazardous Materials Emergency Response Service of the Maritime Disaster Prevention Center.

Goals and Results

Items	Boundary	FY2024 Goals	FY2024 Results	FY2025 Goals
Lost-workday injuries in logistics	Logistics	0	0	0

Lost-workday Injuries in Logistics

	FY2020	FY2021	FY2022	FY2023	FY2024
Number of cases	1	0	0	2	0

Note: Lost-workday accidents caused by logistics subcontractors on the premises of Sumitomo Chemical workplaces and lost-workday accidents caused by major logistics subcontractors outside the premises of Sumitomo Chemical workplaces.