

Vol. 113

KOSHA NEWS

OCTOBER 2021

Protecting Worker's
Life and Health



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Publication of Korean version of the International Chemical Safety Cards (ICSCs) for worldwide use

Published Korean version of the International Chemical Safety Cards (ICSCs) for 1,783 chemical substances, co-developed by the International Labour Organization (ILO) and World Health Organization (WHO)

Expected to improve safety and health by increasing the accessibility of safety and health information for chemical substances handled in workplaces



The Ministry of Employment and Labor (Minister : Kyung-duk An) recently completed the translation and production of Korean version of the International Chemical Safety Cards (ICSCs*) in collaboration with the International Labour Organization (ILO) and Korea Occupational Safety and Health Agency (President : Doo-yong Park).

* ICSCs: International Chemical Safety Cards

— The International Chemical Safety Cards are cards that were developed in the 1980s by the International Labour Organization (ILO) and World Health Organization (WHO) to efficiently convey and disseminate accurate information on chemical substances.

- Cards for a total of 1,783 chemical substances have been produced in 11 languages,* including English, Chinese, and Japanese, with the Korean version now having been added as the 12th language.

* English, Chinese, Japanese, Finnish, French, Hebrew, Hungarian, Italian, Polish, Russian, and Spanish

Publication of Korean version of the International Chemical Safety Cards (ICSCs) for worldwide use

The International Chemical Safety Cards present essential safety and health information on various chemical substances, including characteristics and risks, accident prevention measures, and emergency response tips, in a concise manner via a two-page card.

* ▲ Characteristics of substances : substance perception information, physical/chemical characteristics, etc.

▲ Hazard and risk information : acute hazard information, effects on human body in cases of short-/long-term exposure, risk of fire/explosion, etc.

▲ Prevention/response : accident prevention, emergency response, occupational exposure criteria, storage conditions, etc.

국제 화학 안전 카드 (ICSC) 0015		
화학 물질: 벤젠 CAS #: 71-43-2 UN #: 1114 EC 번호: 200-753-7		
급성 유해성	예방	소방
화재 및 폭발 고인화성. 공기/수기 혼합물은 폭발성인 물질과 혼합될 수 있음. 화염에 노출될 수 있음.	화염으로부터 멀리 떨어져서. 화염에 노출될 수 있음. 화염에 노출될 수 있음. 화염에 노출될 수 있음. 화염에 노출될 수 있음.	화재 발생 시, 물을 사용하지 마세요. 화염에 노출될 수 있음. 화염에 노출될 수 있음. 화염에 노출될 수 있음. 화염에 노출될 수 있음.
모든 접촉을 금함!		
증상	예방	응급처치
흡입 화염, 증기, 연기, 분진, 먼지, 가연성 증기.	공기 중 농도가 낮지 않거나 호흡기 보호구(마스크)를 착용하십시오.	신선한 공기를 마시십시오. 호흡기 보호구(마스크)를 착용하십시오.
피부 흡수될 수 있음. 피부 자극. 발적. 통증.	보호 장갑. 보호복.	오염된 옷을 벗으십시오. 다량의 물 또는 물로 씻으십시오.
눈 증기, 분진.	보호 장갑. 보호복.	다량의 물로 씻으십시오. 15분 이상 씻으십시오.
섭취 흡수. 인후염. 구토. 추가적으로 흡입.	작업 중 휴식 또는 흡입을 하지 마십시오.	흡수한 물은 구토를 유도하지 마십시오. 즉시 의사의 진료를 받으십시오.
누출 시 대처	분류 및 표시	
모든 발화원을 제거하십시오. 위험 지역에서 사람들을 대피하십시오. 인화성 물질과 혼합될 수 있음. 화재 발생 시, 물을 사용하지 마세요.	UN GHS 기준에 따라 	
저장	국산화성 액체 및 분진 상에서 기포를 유발할 수 있음. 피부에 자극을 일으킴. 눈과 점막을 자극할 수 있음.	
포장	내화성, 석유 및 석유, 산화성 그리고 불연성(비폭발성) 물질. 하수구로 배출되어 있지 않은 용기에 보관.	
식물, 사람과 함께 운송하지 마십시오.	UN 분류 UN 위험 용량: 3, UN 포장 그룹: II	

물리적/화학적 정보	
물리적 상태: 액체 특색: 무색, 무취 끓는점: 80°C 녹는점: 5.5°C 비중: 0.88 증기압: 100mmHg에서 0.18 증기압: 20°C에서 10 증기압: 30°C에서 11.2 증기압: 40°C에서 12.8 증기압: 50°C에서 14.5 증기압: 60°C에서 16.2 증기압: 70°C에서 18.0 증기압: 80°C에서 19.8 증기압: 90°C에서 21.6 증기압: 100°C에서 23.4	화학식: C ₆ H ₆ 분자량: 78.1 끓는점: 80°C 녹는점: 5.5°C 비중: 0.88 증기압: 100mmHg에서 0.18 증기압: 20°C에서 10 증기압: 30°C에서 11.2 증기압: 40°C에서 12.8 증기압: 50°C에서 14.5 증기압: 60°C에서 16.2 증기압: 70°C에서 18.0 증기압: 80°C에서 19.8 증기압: 90°C에서 21.6 증기압: 100°C에서 23.4
노출 및 건강 영향	
노출 경로 이 물질은 흡입, 피부 흡수, 그리고 섭취에 의해 신체에 흡수될 수 있음.	흡입 위험 20°C에서 이 물질이 증발하여 공기 중 농도가 매우 높을 수 있음.
단기 노출로 인한 영향 이 물질은 눈, 피부, 그리고 기도 자극을 일으킬 수 있음. 이 물질은 중추신경계에 영향을 줄 수 있음.	장기 노출로 인한 영향 이 물질은 만성적으로 노출되면 폐암을 유발할 수 있음. 이 물질은 만성적으로 노출되면 백혈병을 유발할 수 있음. 이 물질은 만성적으로 노출되면 심장병을 유발할 수 있음. 이 물질은 만성적으로 노출되면 간장병을 유발할 수 있음. 이 물질은 만성적으로 노출되면 신장병을 유발할 수 있음. 이 물질은 만성적으로 노출되면 당뇨병을 유발할 수 있음. 이 물질은 만성적으로 노출되면 고혈압을 유발할 수 있음. 이 물질은 만성적으로 노출되면 암을 유발할 수 있음.
직업적 노출 기준	
TLV: 0.5 ppm TWA; 2.5 ppm STEL (피부); A1 (인간 발암 물질로 확인됨); BEI 부여 EU-OEL: 0.25 mg/m ³ ; 1 ppm TWA (피부) MAK: 발암물질 분류: 1, 생식 세포 돌연변이: 그룹 3A, 피부 흡수: (H)	
환경	
이 물질은 수생생물에 독성을 가짐. 이 물질은 수생환경에 장기적인 영향을 미칠 수 있음.	
주석	
알코올 용액을 사용하면 해로운 영향이 증가합니다. 노출 경로에 따라 장기적인 건강 영향을 유발합니다. 노출 기준을 초과할 때 발암에 의한 위험은 증가하지 않습니다. 벤젠은 급성, 만성, 발암성 / 급성 및 만성 발암성 발암물질입니다. 또한 벤젠과 급성 및 만성 발암성 발암물질은 암을 유발할 수 있습니다.	
추가 정보	
EC 분류 위험도: F, T, R: 45-46-11-36/38-48/23/24/25-65; S: 53-45; 주의: E	

(Picture1) An example[Benzene] of ICSC in Korean

- The publication of the Korean version of the International Chemical Safety Cards has enabled Korean users inside and outside of the nation, such as safety and health managers of Korean companies overseas and Korean workers employed overseas, to easily access and use safety and health information on chemical substances.
- This is expected to improve workplace safety and health in various ways, such as preventing accidents and occupational diseases.

Publication of Korean version of the International Chemical Safety Cards (ICSCs) for worldwide use

Meanwhile, the International Chemical Safety Cards can be used as reference data in the process of preparing and reviewing the Material Safety Data Sheet (MSDS),** in accordance with the Occupational Safety and Health Act.

* For the chemical substances included in the harmful factor classification criteria of the Occupational Safety and Health Act or mixtures including these substances, the Material Safety Data Sheet should be prepared, submitted, provided, and published, as defined by related law, and it should be used to provide relevant education.

** MSDS (Material Safety Data Sheet) : This is a manual for the safe use of chemical substances that provides 16 items of data, including hazard/risk information and handling methods.

The Korean version of the International Chemical Safety Cards is publicly available on the International Labour Organization website, so anyone can access it or print it out.

- Furthermore, the Ministry of Employment and Labor plans to keep it up to date in collaboration with the Korea Occupational Safety and Health Agency and International Labour Organization.

※ The ILO and WHO update 50 to 100 cards every year, including the production of new cards and modification and supplementation of existing cards.

Director Gil-jun Noh of International Cooperation Bureau in the Ministry of Employment and Labor said, “We hope that the recent publication of the Korean version of the International Chemical Safety Cards will help improve the safety and health of Korean employees and be of assistance to companies both inside and outside of Korea.”

— He also said, “We hope that this will serve as an opportunity to further strengthen cooperation with major international organizations, such as International Labour Organization and World Health Organization, in the occupational safety and health sector.”

Prevent Fall Accidents from Rooftop Works by Installing Safety Cover

Supports Up to 30 Million KRW for New Development and Business Sites with Installation of Skylight Safety Cover



The KOSHA newly developed a safety cover for skylights in order to eradicate fatal fall accidents frequently occurring during the rooftop works.

- The KOSHA also visited the constructions site of photovoltaic lighting system located in Milyang-si, where a safety cover for skylight is newly installed with the subsidies from the KOSHA, and inspected the workability and safety of the safety cover.

A total of 183 fatal fall accidents were occurred during rooftop works for the past 5 years (2016 through 2020), and analysis showed that many accidents were caused by the damaged roof, such as skylights, and failure of wearing essential personal protective gear, i.e. safety harness, from the main causes of fatal accidents.

※ (Number of deaths) 30 deaths as of August 20, 2021

Accordingly, the KOSHA newly developed a safety cover dedicated to skylights on the roof in last April in order to prevent fall accidents due to damaged skylights during rooftop works.

- The KOSHA developed the standards on performance and production of safety covers for skylights made of aluminum with the weight of approximately 3.8Kg in order to ensure easy installation at the sites but with reliable endurance against certain weights and shocks.



Damaged rooftop materials (example)



Safety cover dedicated for skylights on rooftops

Prevent Fall Accidents from Rooftop Works by Installing Safety Cover

In addition, the KOSHA offers subsidies in order to assure wide distribution of safety covers since last May.

- Eligibility for the subsidy extends to the head offices of construction businesses with experiences in rooftop works but with less than 50 full-time employees where up to 30 million KRW is offered to assist 70% of purchasing costs.

The safety covers for skylights installed at the construction sites of photovoltaic lighting system recently visited by the KOSHA were also purchased by Daegwang Power Corporation, a subcontractor of KT, with the subsidy from the KOSHA.

- On-site inspections were conducted on the safety covers for skylights, mainly focusing on its easy-to-install features and potential interference with photovoltaic lighting system.
- Sang-sik Chung, the Representative Director of Daegwang Power Corporation, said, “After installing the safety covers for skylights, we now can deploy workers with peace of mind,” and strongly recommended the installation of safety covers for other rooftop work sites.

Jang-jin Ryu, the Vice President for OSH Programs of the KOSHA, said, “I sincerely hope that all fatal accidents from fall accidents during rooftop works would be completely eliminated through development of and monetary supports for safety covers for skylights.” He also added, “The KOSHA will continue engaging in communications with worksites and plans to offer more supports by expanding the items of financial supports in order to bring practical assistances to reduce the industrial accidents.”

Forecasting of changes in OSH after the COVID-19 pandemic

OSHRI published research report forecasting changes in OSH in the post-COVID-19 era
What will the issues and challenges of OSH be in the post-COVID-19 era?



┌ The Occupational Safety and Health Research Institute (OSHRI) (Director General : Eun-a Kim) has published “New Challenges of OSH in the Post-COVID-19 Era” to guide research on occupational safety and health (OSH) in the post-COVID-19 era.

- This report is composed of four main topics: ▲ change in the employment and labor environment and blind spots of safety and health caused by COVID-19, ▲ prevention of accidents and death in the post-COVID-19 era, ▲ digital-based workplaces and working from home safely, and ▲ approach to occupational health for workers in occupational health blind spots.
- The OSHRI has also suggested 10 research topics related to the roles and responses of OSH in the post-COVID-19 era, and announced its plan to conduct research on these topics starting next year.

┌ The research report collected, and reflected in its results, opinions of people from all walks of life gathered through six relay forums held in April and May under the topic “OSH Forecast and Challenges in the Post-COVID-19 Era.”

- The forums covered several topics : ▲ safety of platform laborers with a focus on delivery workers and safety of logistic center workers amid the expansion of the online distribution market (Apr. 6), ▲ measures to protect the health of platform and care workers (Apr. 9), ▲ assessment of changes in the safety and health environment with the expansion of working from home and identification of risks (Apr. 22), ▲ legal and institutional measures to protect vulnerable groups and blind spots of safety and health (Apr. 28), ▲ risk assessment of the increasing use of robots in the era of the Fourth Industrial Revolution (Apr. 29), ▲ OSH forecast and future challenges in the post-COVID-19 era (May. 27).
- The forums are publicly available on OSHRI’s YouTube channel and can be watched by topic or speaker.

┌ The OSHRI report forecasting the post-COVID-19 era is published on its website (www.kosha.or.kr/oshri), so anyone who is interested can download the report.

┌ OSHRI Director General Eun-a Kim said, “We need to pay special attention to the changes in OSH caused by the COVID-19 pandemic and proactively prepare to ensure safety and health in the post-COVID-19 era.” She also added, “It is urgent to come up with new safety and health governance as the risks brought about by the pandemic are now becoming normalized.

Forecasting of changes in OSH after the COVID-19 pandemic

Attachment 1 Report on the New Challenges of OSH in the Post-COVID-19 Era

Cover page of Report on the New Challenges of OSH in the Post-COVID-19 Era
[for image reference]



Attachment 2 Suggested OSH research items in the post-COVID-19 era (10 research items)

Topic	No.	Name of research
Changes in employment and labor environment	1	• Review of effectiveness of safety and health law and policy criteria reflecting the types of labor - Research to expand the criteria for work-related accidents
	2	• Seeking protective measures for new vulnerable groups in terms of safety and health from a gender perspective in the pandemic era
Accident and death prevention	3	• Research to suggest alternatives for preventing accidents of two-wheeled vehicle delivery platform workers
	4	• Research to improve the safety of industrial robot systems by lifecycle
	5	• Research to secure safety by lifecycle toward preventing large accidents at logistics centers
	6	• Development of systematic accident analysis model and manual in consideration of industry characteristics
Vulnerable groups	7	• Creation of dynamic industrial health system to respond to the emergence of new hazardous factors and new types of employment
	8	• Means of facilitating collective intelligence in industrial health - Networking of small-scale workplaces and/or vulnerable workers
	9	• Employment status of care workers and health protection measures
Working from home	10	• Research to develop a guideline for maintaining health while working from home

[10 research items per topic]

Forecasting of changes in OSH after the COVID-19 pandemic

Attachment 3

Details of “OSH Forecast and Challenges in the Post-COVID-19 Era” forums(held between Apr. 6 and May 27)

Time	Topic
Apr. 6 (Tues.) 14:00-17:00	<ul style="list-style-type: none"> • Securing safety of platform laborers: with a focus on delivery workers - Presentation: platform labor from the perspective of delivery, social issues of two-wheeled vehicle delivery platform workers, and measures to strengthen the safety net for delivery platform workers - Discussion: change of network structure and workforce trends, status of industrial accidents, and results of fact-finding surveys conducted inside and outside of Korea • Risks of logistics centers with the expansion and transformation of the online distribution market - Presentation: current status of safety in the construction of logistics centers and future responses - Discussion: institutional and social issues, operational status of logistics centers and forecast of construction environment, status of industrial disasters, and derivation of implications through analysis of cases of fire accidents at logistics centers
Apr. 9 (Fri.) 14:00-16:00	<ul style="list-style-type: none"> • Measures to protect the health of platform workers - Presentation: cases of medical checkups of platform workers and measures to promote the health of platform workers • Measures to protect the health of care workers - Status of female workers' safety and health risks in the post-COVID-19 era and policy issues (focusing on care workers)
Apr. 22 (Thur.) 14:00-15:40	<ul style="list-style-type: none"> • Digital-based workplaces and working from home safely - Presentation: changes in safety and health environment brought about by the expansion of working from home, status of working from home and safety and health policy, risks of safety and health environment, cases of policy to support working from home, related Korean law and overseas policy (ILO, Europe, and U.S.), applicability and risks of working from home (focusing on case analysis of ILO, OSHA, literature, etc.), physical factors and health risks of working from home (electromagnetic waves, ambient and environmental noise, lighting, etc.), indoor dust and health risks, ergonomic problems and health risks, and psychosocial problems and health risks of working from home (sense of isolation, depression, etc.)
Apr. 28 (Wed.) 14:00-16:10	<ul style="list-style-type: none"> • Protection of vulnerable groups and safety and health blind spots (legal and institutional measures and prediction of risk factors and implications) - Presentation: magnitude of blind spots of social protection in the COVID-19 era and direction of alternative policy, direction for legal and institutional improvement to respond to the new labor environment, comparison of working environments before and after the COVID-19 pandemic, and trend of changes and forecast by industry/type of employment during the pandemic
Apr. 29 (Thur.) 14:00-17:00	<ul style="list-style-type: none"> • Risks of using robots, the number of which will soon match that of laborers - Presentation: co-existence of robots and humans and how to secure safety and recent trends of robot safety and measures for technological response - Discussion: trend of discussion to secure the safety of robots inside and outside the nation, measures to secure safety through fact-finding analysis of robot use, forecast of robot use, robot safety issues, status of industrial accidents involving industrial robots, and cases and implications of Korean and international accidents involving intelligent robots • Targets of deadly accident prevention and research topics in the post-COVID-19 era
May. 27 (Thur.) 14:00-16:10	<ul style="list-style-type: none"> • Forecast of OSH and future challenges in the post-COVID 19 era (open discussion)

International Convention on Workers' Health Protection to Be Held for Post-COVID-19 Era

OSHRI Hosts Regular Meeting of Asia Occupational Safety and Health Research Institute (AOSHRI) on the 14th



┌ A meeting will be held to discuss the direction of safety and health studies in the post-COVID-19 era and engage in international joint researches.

┌ OSHRI holds the “8th Regular Meeting of Asia Occupational Safety and Health Research Institute (AOSHRI* 2021)” at 11:00am on the 14th (Tuesday) via online.

* Asia Occupational Safety and Health Research Institute (AOSHRI)

— The theme of the upcoming meeting is “Challenges for Occupational Safety and Health during Post-COVID-19 Era,” where Director General Kim is to deliver the presentation of the theme and achievements of joint researches by Taiwan and Thailand on the 4th Industrial Revolution and OSH as well as worldwide trends of researches and exemplary research cases will be shared.

- The meeting is designed to share current issues of international OSH and solutions for ongoing problems and also to identify new joint research projects.

— Regular meetings of AOSHRI have been held every 2 years since founded in 2004 and participated by OSH-related researches institutes and related agencies from 14 Asian nations, including Japan (JNIOSH), Singapore (WSHI) and Malaysia (NIOHS Malaysia).

┌ Eun-A Kim, the Director General of OSHRI, said, “Safety and health of workers at workplaces and protection of their lives now became a significant task on hand after the entire world experienced COVID-19.”

— “I truly hope that this upcoming regular meeting of AOSHRI as well as International Occupational Hygiene Association would serve as a place of practical discussions to present new directions of future studies to protect workers and substitute the implementation of joint researches,” Kim added.

Publication of best practices for safety inspection and certification of hazardous machines

Contains 121 review (inspection) cases, including cranes and lifts, and to be released on October 27



┌ The Occupational Safety & Health Certification Institute (OSHCI) (Director General : Young-tae Kim) publishes and disseminates a best practices casebook to improve review (inspection) technologies for the safety inspection and certification of hazardous machines in accordance with the Occupational Safety and Health Act and share safety measures for the manufacturing and use of such machines.

┌ The safety inspection and certification of hazardous machines, which is widely applied to cranes and lifts on industrial sites, is a legal system for securing safety in the manufacturing and use of dangerous machines that are prone to accidents.

- Safety certification involves the examination of documents and products to secure fundamental safety at the stages of manufacturing and import, whereas safety inspection checks whether safety is maintained at the stage of use.

┌ Since 2019, the KOSHA has been conducting a best practices contest to help strengthen the substantiality of the system. The recently-published best practices casebook contains 121 best practices selected through the best practices contest based on the safety inspection and certification activities conducted by the OSHCI in 2020 and 2021 as well as by private safety inspection institutions (Korea Elevator Safety Agency, Korea Industrial Safety Association, and Korea Safety Technology Association).

- The cases of safety inspection and certification are categorized by hazardous machines and equipment, including cranes, lifts, and pressure vessels, and the casebook includes the main reasons for nonconformity organized by review technique and machine.

Publication of best practices for safety inspection and certification of hazardous machines

In particular, the top best practice of 2021, for resolving “defect causing lifting magnet of overhead crane to stick,” was rated excellent in terms of its accident prevention effect and scope of application.

The best practices casebook will be provided to OSHCI branches nationwide and private safety inspection institutions (Korea Elevator Safety Agency, Korea Industrial Safety Association, and Korea Safety Technology Association).

- The casebook will be also posted on the website for our comprehensive database of hazardous machines and devices (miis.kosha.or.kr) so that it is widely shared.

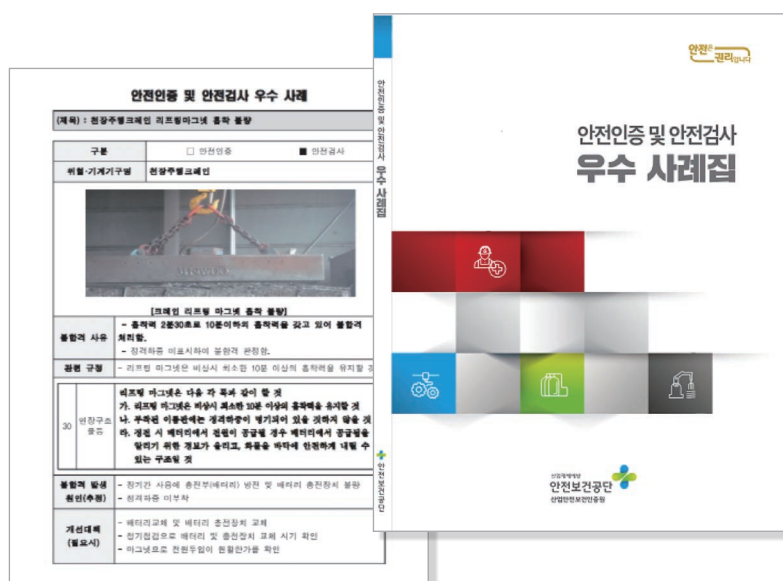
※ Search notice board → Notification → Best practice

OSHCI Director General Young-tae Kim said, “I hope this casebook will be used as a good reference and guideline by manufacturers, users, and reviewers (inspectors) of dangerous machines.”

- He also stated, “The OSHCI will continue working hard to improve the review (inspection) technologies of each institution by actively identifying and widely sharing best practices and ensure that laborers benefit from such practices on industrial sites.”

Attachment

Safety inspection and certification best practices casebook



Guideline on How to Safely Put on Protective Gear

Production and Distribution of Guideline on Purchase/Use of Welding Mask



Safety and health of workers are being threatened by the use of products of which safety is not certified because personal protection gears of which safety is not verified without safety certification are being disguised as safety-certified products and falsely advertised or sold/distributed throughout industrial sites.

OSHCI of the KOSHA produces and distributes the OPL series of “Guideline on How to Safely Put on Protective Gear” in order to prevent the use of uncertified protective gears and promote the use of properly safety-certified products.

- The first series concerns the ‘welding mask’ where the guideline is prepared in a single page in order to help users easily understanding what to look out for, including how to verify KCs safety certification, how to purchase and how to use.
 - During purchase of protective gears via online or offline, it is important for users to verify KCs safety certification which guarantees safety and protection performances. Safety certification of products can be verified through the official website of the OSHCI.
 - Even when major consumables (filter and cover plate) of a welding mask currently in use are replaced, users need to pay attention to whether the replacing consumables are authentic products since only authentic components are able to warrant protection performances of the protective gear concerned.
 - When selecting a welding mask, users need to choose a product with a shade level suitable to harmful rays generated during operations based on the type of operations, and ensure the protection performance not to be deteriorated, such as arbitrary modification of the protective gear concerned.

Guideline on How to Safely Put on Protective Gear

- ┌ The OPL series concerned is scheduled to be distributed to over 4,500 sites, including manufacturers with at least 100 employees, manufacturers of products subject to safety certification and voluntary safety verification reporting and related agencies around the nation, and the details can be verified through the official website of the KOSHA.
- ┌ The KOSHA also plans to publish a total of 12 OPL series of “Guideline on How to Safely Put on Protective Gear” subject to safety certification, including safety helmet, safety harness and safety goggles, which will be unveiled through its official website in the near future.
- ┌ Young-Tae Kim, the Director General of OSHCI, said, “It is important to keep in mind that safety-certified products must be employed for protective gears in order to protect the safety and life of workers, and we are determined to eradicate uncertified products from industrial sites through continuous public education.”

“No More” Delivery by Two-Wheeled Vehicle Pushed to Speed Competition

KOSHA’s Pilot Project on Big Data Collection through Real-Time Monitoring



- #1.** Mr. Kim, a delivery worker affiliated with A Company specialized in local delivery, was overwhelmed with soaring demands for delivery on Friday evening in June, 2021. Despite 2 alerts from automatic allocations for a pick-up in 20 minutes, he didn’t know which to pick up first because of substantial distance between two restaurants. As the target delivery time is gradually shortened, the letters displaying the time is now red-colored. All he can do now is to escalate the speed of his two-wheeled vehicle.
- #2.** Mr. Park, a delivery worker who joined the delivery platform B, only delivers one order at a time but becomes agonized every time he faces a red light. His location and expected arrival time is notified to a customer in real time, but he only has the address to deliver. He has to worry about possibility for disadvantages from delivery assignments if he ever gets unfavorable review for failing to meet the expected delivery time.

┌ The KOSHA launched the “Two-Wheeled Vehicle Real-Time Monitoring Project” in order to understand the current situations surrounding dangerous delivery practices, including speeding by two-wheeled vehicle, and calculate the safe delivery time.

┌ The “Two-Wheeled Vehicle Real-Time Monitoring Project” is a pilot project aiming to collect basic data in order to develop a system capable of calculating safe delivery time in real time through collection and analysis of big data on driving by delivery workers.

“No More” Delivery by Two-Wheeled Vehicle Pushed to Speed Competition

- Driving data will be collected in real time from over 100 delivery workers in 5 regions, such as Seoul, Gyeonggi-do, Incheon, Busan and Gwangju, through installation of IoT device equipped with LTE communication modules at two-wheeled vehicle for about 4 months.
 - The project is designed to collect the information on speed fluctuation during straight movements and turns by means of GPS signals and 6-axis sensors (3 axes for acceleration and 3 axes for Gyro).
- With collected data, analysis will be conducted upon driving information, real-time traffic volume and weather (temperature, rainfall, snowfall, etc.) together with Hanyang University (Department of Transportation & Logistics Engineering).
 - It plans to present a guideline on safe driving by establishing the regions prone for accident risks and aims to develop the ‘safe delivery time calculation system’ designed to provide guidance in real time based on calculation of safe delivery time and unveil the system in Open-API* during the second half of this year.

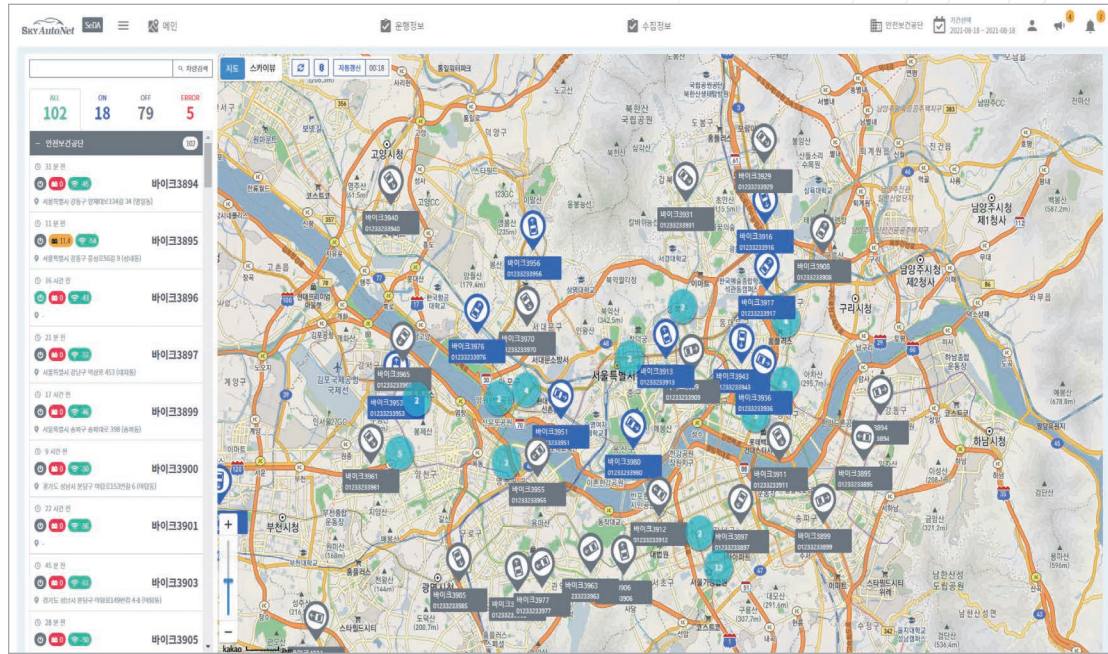
* Open Application Programmer Interface is an open computer program applicable to existing program or capable of comparing calculated data.

┌ Moon-Do Lee, the Director General of the Occupational Safety & Health Future Technology Institute (OSHFI), said, “With prolonged COVID-19, both delivery demands and delivery-related accidents are surging.” He stressed, “We are dedicated to gradually reducing fatal accidents for two-wheeled vehicle delivery workers by planning a new accident-prevention business system and distribute the system for business sites to easily use the system.”

“No More” Delivery by Two-Wheeled Vehicle Pushed to Speed Competition

Addenda

Screen of Real-Time Pilot Monitoring (big data collection) System for Two-Wheeled Vehicle



Screen of Real-Time Monitoring System for Two-Wheeled Vehicle

Example of the system on calculation of safe delivery time currently under development in a format of navigation service (scheduled for pilot operation in the 2nd half of 2021)

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