# Responding to the COVID-19 Pandemic: Social Contribution through Diverse Products and Technologies



#### Relevant SDG

SDG 3: Ensure healthy lives and promote well-being for all at all ages

Seeing the strain that the COVID-19 (novel coronavirus) pandemic has put on the medical system, we at Mitsubishi Chemical (MCC) asked ourselves how we could contribute using the industrial materials and technologies of the MCC Group. Leveraging ideas and networks from within the Group, and the diversity and versatility of its chemicals, we have provided the following products to society.

# **Contributing through Products**

#### Plastic Gowns

We developed plastic gowns based on instructions from the Ministry of Health, Labour and Welfare by adapting polyethylene rain ponchos. We added thumb holes at the ends of the sleeves to prevent them from riding up as well as a perforated line down the back to make it easy to take the gowns off, reducing the risk of contact-based infection. Furthermore, each gown weighs less than 100 grams, helping to reduce waste when used gowns are thrown away.



Plastic gown

#### Face Shields

MCC created face shields by applying polyester sheet manufacturing technologies used to produce food packaging trays along with curved creasing technologies developed for cosmetics case processing.

MCC was quick to donate and supply plastic gowns and face shields to medical institutions, helping to prevent the spread of infection in hospitals and clinics.



Face shield



Glare reduction model

### Laundry Bags

Laundry bags made from our water-soluble film Hi-Selon™ allow users to wash used sheets or clothing without touching them. Their use, mainly in hospitals, helps prevent infection.



Laundry bag



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# Products to Help Prevent Infection by Airborne Droplets

MCC offers SHINKOLITE™ continuous cast acrylic sheets and Altron™ flexible PVC film, which are used to make partitions that help prevent the airborne spread of COVID-19 in daily life. Due to their excellent transparency and formability, these products are being used in a wide array of settings, such as at the registers and counters of stores and restaurants; in offices; service counters at public service facilities; inside taxis, buses

and public transportation; and on TV filming sets.



Standing partition made of SHINKOLITE™ cast acrylic sheet



Partition curtain made with Altron™ flexible PVC film



HISHITANK™

#### ■ HISHITANK™

HISHITANK™ is a water tank made of fiber-reinforced plastic developed primarily to provide clean drinking water and featuring outstanding performance in terms of seismic resistance, hygiene, durability and workability. These tanks have been installed by the Nippon Foundation at facilities built to combat the COVID-19 pandemic. They have also been installed at quarantine lodging facilities built by the Hong Kong government, specifically for COVID-19 patients, to help ensure an adequate supply of hospital beds.

### ■ Wasaouro<sup>™</sup>

Wasaouro™ is an antibacterial, freshness-maintaining agent, the main component of which is allyl mustard oil (allyl isothiocyanate, "AIT"), the main compound responsible for the spicy flavor of wasabi and Chinese mustard. AIT-impregnated transparent films gradually release AIT, providing an easy and safe way of maintaining food freshness and quality by suppressing the growth of bacteria and mold. This product is well suited to maintaining the quality of products with short shelf lives, such as boxed lunches. We provided it free of charge for a limited time to restaurants that began selling boxed lunches while dine-in operations were closed to prevent the spread of COVID-19.



Wasaouro™





Repositionable adhesive posters made with YUPO™ SUCTIONTACK™

# ■ Repositionable Adhesive Posters Made with YUPO™ SUCTIONTACK™

MCC provided a limited supply of posters to raise awareness of infection prevention practices free of charge to restaurants and companies working to prevent the spread of COVID-19. These posters were made with YUPO<sup>TM</sup> SUCTIONTACK<sup>TM</sup>, a repositionable adhesive sheet that uses micro-suction to cling to smooth surfaces without blisters.

#### Main Products Helping Combat the Spread of COVID-19

Contribution		Company
Plastic gowns		J-Film Corporation
Face shields		J-Film Corporation
Laundry bags		TAISEI KAYAKU CO., Ltd.
Airborne transmission prevention products	Partitions made from SHINKOLITE™ cast acrylic sheet	Mitsubishi Chemical Corporation
	Partition curtains made with Altron™ flexible PVC film	DiaPlus Film Inc.
HISHITANK™		Mitsubishi Chemical Infratec Co., Ltd.
Wasaouro™		Mitsubishi-Chemical Foods Corp.
Repositionable adhesive posters made with YUPO™ SUCTIONTACK™		YUPO CORPORATION

# Other Forms of Contribution

# ■ IP Open Access Declaration Against COVID-19

MCC joined the IP Open Access Declaration Against COVID-19 in May 2020. The declaration is a pledge to not assert any patent right, utility model right, design right or copyright against any development, manufacture, sale, or other related activity carried out for the purpose of stopping the spread of COVID-19. MCC declared that, with regard to activities carried out for the sole purpose of stopping the spread of COVID-19, it would temporarily suspend its assertion of patent rights, utility model rights, design rights and copyrights and refrain from seeking compensation for their use.

#### For Children

With school closures and efforts to stay home to prevent the spread of infection, many children are spending more time than usual at home. To make this time more enjoyable and help spark an interest in chemistry, since May 2020, MCC has been soliciting chemistry experiment videos from its employees and posting them to the MCC Group internal portal site. Employees submitted more than 10 videos that encourage children to think, experiment, and learn in a fun way using household materials and provide explanations of chemical phenomena. Beginning in July 2020, we published some of these on YouTube.



Experient video

In addition, we donated 17,000 high-efficiency N95 face masks that MCC's Shiga Plant had stockpiled to medical facilities in Nagahama City.

Going forward, while working in coordination with government and industry organizations, the MCC Group will continue to solicit ideas covering a wide range of topics from employees, seeking to combine its diverse products and technologies to proactively develop new products that will help combat the spread of COVID-19.