## News Release



April. 26, 2021 DIC Corporation

### DIC Commences Sales of Hybrid Inorganic Antiviral and Antibacterial Agent WILMISH™

-Delivers outstanding antiviral effectiveness, as well as a self-cleaning function, and is suitable for diverse applications, contributing to safe environments and peace of mind-

**Tokyo, Japan**—DIC Corporation announced today that it has commenced sales of  $WILMISH^{TM}$ , a newly developed hybrid inorganic antiviral and antibacterial agent. This hybrid agent comprises a metal compound that delivers superior antiviral and antibacterial effectiveness and a special photocatalyst. Looking ahead, the Company plans to build a lineup of  $WILMISH^{TM}$  products for a variety of applications, including interior decorating materials, textiles and industrial materials, with a view to marketing these products in Japan, the People's Republic of China (PRC) and Southeast Asia, and has set a target for annual sales of ¥1.5 billion by 2025.



Applications envisioned for WILMISH™ antiviral and antibacterial agent

With the spread of COVID-19 driving consumer concern for proper sanitization, calls have increased for the use of antiviral and antibacterial products in all locations, not only in hospitals and public facilities. However, issues with the safety—including skin irritation—and durability of organic antiviral and antibacterial products on the market, have encouraged interest in inorganic alternatives. There have been few inorganic products until now that ensure first-rate antiviral and antibacterial effectiveness, and which are also durable and safe.

DIC's newly developed *WILMISH*<sup>™</sup> hybrid inorganic antiviral and antibacterial agent is capable of eliminating not only common bacteria and influenza viruses, but also norovirus,\* against which existing products have not worked well. Under dark conditions with no visible light, the activity of the metal compound in *WILMISH*<sup>™</sup> provides exceptional defense against viruses. Under indoor lighting,

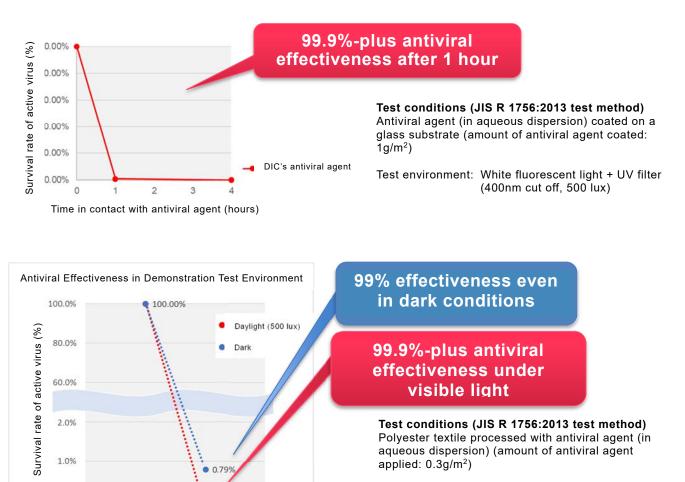
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this agent reacts even with weak light, i.e., it is visible light-responsive, and demonstrates superb antiviral effectiveness, as well as a self-cleaning function that reduces organic stains such as sebaceous secretions. Outstanding antiviral effectiveness has been confirmed in tests of durability e.g., of heat and water resistance—while safety tests\*\* have also yielded promising data. With the aim of expanding applications, DIC is currently seeking patents for relevant applied technologies.

### Tests of Antiviral Effectiveness Against Norovirus



Test environment: Indoor lighting: White fluorescent light + UV filter (400nm cut off, 500 lux) Dark conditions: Camera obscura

Verification tests for *WILMISH*<sup>™</sup> are currently underway in a broad range of fields, including interior decorating materials, textiles and industrial materials, and the agent has already been adopted for use in certain areas of the interior decorating materials sector. DIC will continue looking to leverage DIC Group technologies to further improve the performance of this agent, as well as to cultivate new applications, thereby contributing to health, safety and peace of mind for people everywhere, and to the realization of comfortable, secure living spaces.

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Start of test 4 hours later

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The DIC Group is working to create businesses in response to environment, safety and health (ESH)related issues and social change in line with its New Pillar Creation strategy, one of two basic strategies outlined in its DIC111 medium-term management plan. While efforts focus on businesses underpinned by organic materials technologies, the Group will step up efforts to add inorganic materials technologies to its portfolio, positioning it to expand into businesses that would have been less straightforward with its existing basic technologies.

\* Test method used: Japan Industrial Standards' JIS R 1756:2020.

\*\*Tests of acute oral toxicity, mutagenicity (Ames test), skin irritation and skin sensitivity.

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#### **Reference:**

Hybrid Inorganic Antiviral and Antibacterial Agent (Japanese only): <u>https://www.dic-global.com/ja/products/wilmish/</u>

### About DIC Corporation

DIC Corporation (DIC) is one of Japan's most diversified fine chemical companies and the heart of the DIC Group. Worldwide, the DIC Group encompasses over 170 subsidiaries, including Sun Chemical Corporation, across 60+ countries. The DIC Group portfolio is organized into three segments: Packaging & Graphic, Color & Display, and Functional Products notably for electronic, automotive, and building materials. The DIC Group is constantly working to promote and develop sustainable solutions to exceed customer expectations and better the world around us. With combined annual sales of more than \$7 billion and 22,000+ employees worldwide, DIC Group companies support a diverse collection of global customers. Please visit <a href="https://www.dic-global.com/en/">https://www.dic-global.com/en/</a> for more details.