

Here is some feedback from people who have used SMilet!



Female employee of our company

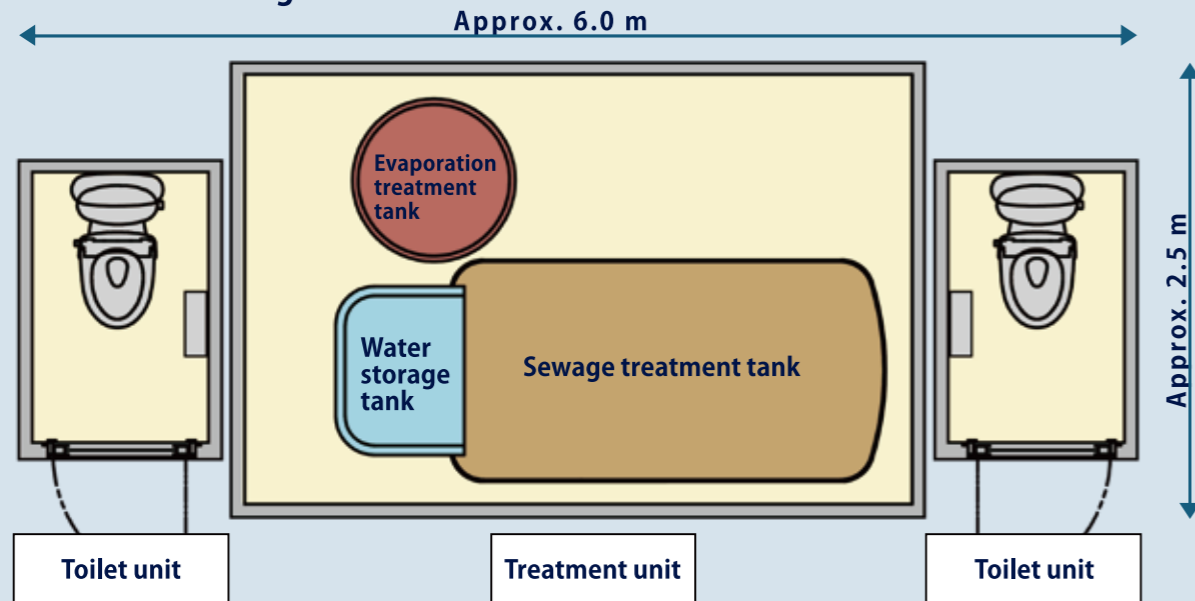
SMilet is extremely easy to use and odorless, making it as comfortable as a toilet at home. I hope SMilet is available at fireworks festivals and cherry blossom viewing events.. While other portable toilets require stepping on a hard lever to flush, SMilet offers a hassle-free experience with its one-finger flush mechanism.



Male employee of a partner company

SMilet is odorless and safe. It's just as comfortable as a home or hotel toilet. I understand that many people who need to evacuate their homes after a natural disaster have difficulties with toilet use. So, I think SMilet can be very valuable in disaster-affected areas.

Schematic diagram



Outline drawing

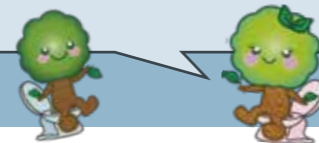
*The above details may be changed through design improvements.

Unit configuration	Treatment unit + 2 × Toilet units
External dimensions	Approx. 6.0 m (W) × 2.5 m (D) × 2.5 m (H)
Dry weight	Approx. 3.0 t (incl. toilet units), 5.5 t in operation (incl. water)
Transportation and hoisting	Truck-mounted crane of min. 10-ton capacity (for loading/unloading each unit)
Standard usage	100 times/day
Power specifications	AC100V (50/60Hz)
Annual power consumption	Approx. 3,600 kWh (50Hz) / 3,900 kWh (60Hz)

By making available comfortable toilets anytime (even in the event of a disaster) and anywhere (even in places without infrastructure), we can help to ensure healthy and comfortable living environments all over the world.



Through the deployment of SMilet, we are striving to solve a real-world problem.



Comfortable toilets anytime, anywhere, with no need for water supply or sewerage infrastructure.

A SMile for everyone!

Water-cycling bio-toilet

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.

New Business Planning Department, Business Creation Division
Tokyo Sumitomo Twin Bldg. (East 19F)
27-1 Shinkawa 2-chome, Chuo-ku, Tokyo 104-0033 Japan
✉ SMilet@eb.smcon.co.jp
<https://www.smcon.co.jp/service/biotoilet/>



SUMITOMO MITSUI CONSTRUCTION CO.,LTD.

with no need for water supply or sewerage infrastructure.

Difficulties

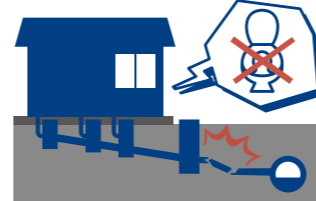


in the event of a disaster

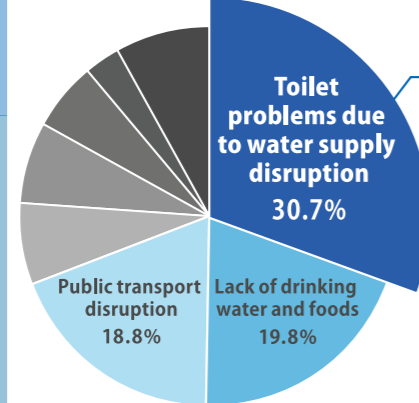
In disaster-prone Japan, earthquakes, floods, and other natural calamities have been occurring more frequently in recent years. When water and sewer infrastructure are damaged during disasters, most toilets become inoperable, posing a significant issue for evacuees. Various types of portable and emergency toilets, such as "manhole toilets," are used during disasters.



It seems that the toilets typically used in times of disaster have various problems.



[The most frustrating things in times of disaster] (Survey of disaster victims)



[Breakdown of toilet problems]

- I can't flush toilet with water
- I can't stand the smell
- A desire to urinate is inevitable as a physiological need

Due to the overwhelming bad odor and unclean conditions, some people limited their water intake or avoided using the toilet, leading to health issues.



Toileta

Water-cycling bio-toilets offer a more comfortable toilet environment, whether in normal times or emergency situations.

* Questionnaire survey after torrential rains in July 2018
Source: Mainichi Inc. (<https://www.prdesse.com/posts/view/16955>)

SMilet solves toilet problems!

No need for water and sewerage connections, even though it's a flush toilet!

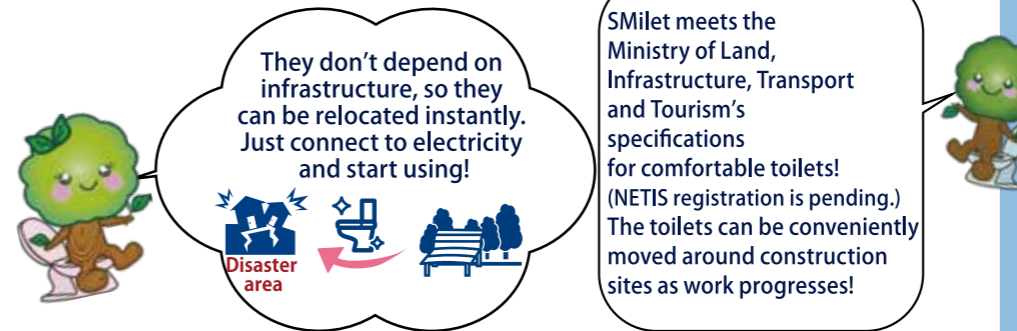
No need to supply water or collect waste, so it can continue to be used without any worries, even in disaster situations!

Comfortable, without unpleasant odors!

Since they are Western-style flush toilets, they can be used easily by children and elderly people!

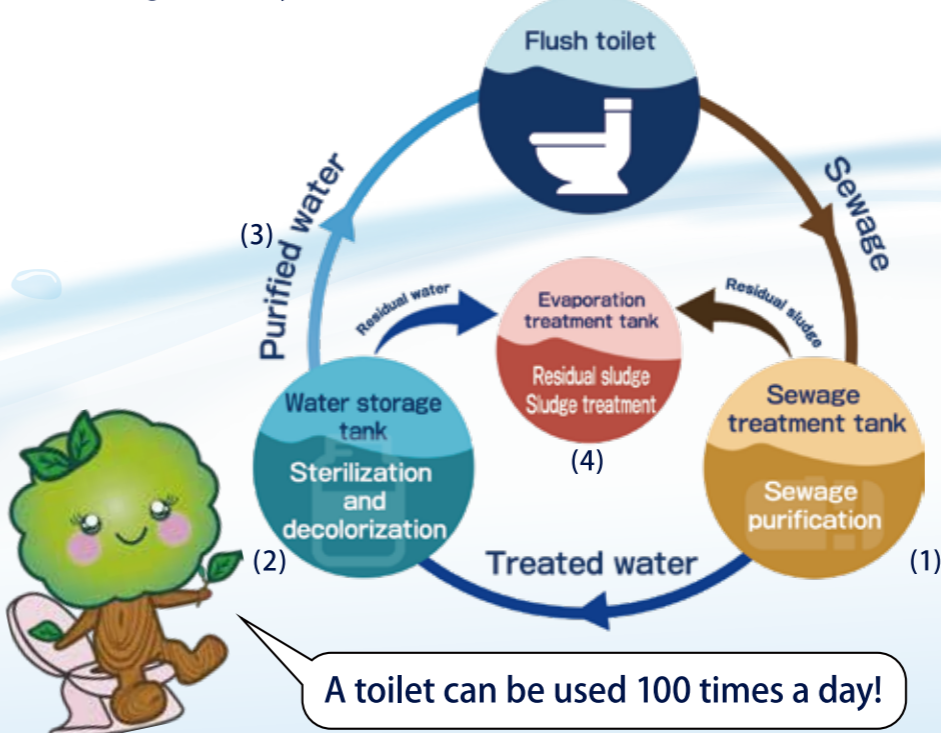
Ready to use anywhere and anytime!

Easy to install and move, so they can be used immediately even in disaster areas!



How SMilet works

- (1) Sewage is separated into treated water and sludge by the action of microorganisms.
- (2) The treated water is sterilized and decolorized by electrolysis.
- (3) The purified water is reused to flush toilets.
- (4) Residual water is evaporated, and sludge is treated to significantly reduce its volume.



A toilet can be used 100 times a day!

Three advantages of SMilet

Safe and reassuringly clean

- Flush toilets that are odor-free and do not attract pests.
- Clean flushing water with zero E.coli count, due to sterilization and decolorization

Easy maintenance

- No need to remove waste, due to biological treatment and evaporation
- Ability to monitor toilets remotely for peace of mind and rapid response in case of any failure



Wide range of variations

In addition to the standard system combining a treatment unit with toilets, the treatment unit is available as a stand-alone product for connection to existing flush toilets.

Standard product



Treatment unit with toilets

Options



Stand-alone treatment unit

Solar power generator + Storage batteries

Wash basin,* Washlet toilet seat,* Urinal

Universal design

* A separate water supply is required

Toilet problems even in normal times!

Clean, comfortable flushing toilets are required in all kinds of situations.

Places without water and sewerage infrastructure



Nature parks



Camping sites



Mountains

The natural surroundings are beautiful, but finding a toilet can be a concern.



Toilets at construction sites

To improve workplace comfort for everyone, including in challenging locations like high altitudes, mountainous areas, and marine sites, installing comfortable flush toilets is essential.



SMilet can be used even on bridge construction work sites 40 meters above the water!