

## **DWITIC WASTE INFORMATION**

### **Plastic Bottle**

Plastic bottle waste intersects with several SDG goals, including SDG 12 (Responsible Consumption and Production), SDG 14 (Life Below Water), SDG 15 (Life on Land)

Plastic bottle waste, originating from containers made of polyethylene terephthalate (PET) or high-density polyethylene (HDPE), poses a significant environmental challenge due to its durability and widespread use. Its production demands fossil fuels and emits greenhouse gases, contributing to climate change. Addressing this issue requires concerted efforts: reducing consumption through reusable alternatives, ensuring proper recycling adherence, advocating for policy changes like deposit systems and plastic bans, and fostering widespread awareness about the importance of reducing, reusing, and recycling plastic bottles. These actions can effectively mitigate the environmental impact of plastic bottle waste, combating climate change and promoting sustainable practices.

### **Metal Waste**

Metal waste intersects with several SDGs, primarily focusing on SDG 12(Responsible Consumption and Production), SDG 11(Sustainable Cities and Communities), SDG 13(Climate Action), SDG 9(Industry, Innovation, and Infrastructure).

Metal waste, originating from industrial, construction, and consumer sources, poses environmental hazards like soil and water contamination due to improper disposal. Both ferrous and non-ferrous metals contribute to habitat destruction, deforestation, and greenhouse gas emissions during extraction and processing. To manage this waste effectively, reducing consumption, reusing items, and recycling through local programs are essential. Supporting responsible manufacturing and disposal practices, along with raising awareness and advocating for sustainability, are crucial steps. By adopting these measures, individuals and communities can significantly reduce the environmental impact of metal waste, mitigating its contribution to climate change and environmental degradation.

### **Glass**

Glass waste falls under several UN SDGs, including SDG 9(Industry, Innovation, Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action).

Glass waste, comprising discarded bottles, jars, and containers, poses environmental challenges such as wildlife hazards, visual pollution, and resource depletion from raw material mining. Energy-intensive production contributes to greenhouse gas emissions and climate change. Contamination occurs when glass waste mixes with other materials. Managing glass waste involves reducing consumption, reusing containers, and recycling through municipal programs. Supporting initiatives like bottle deposit systems and producer responsibility programs promotes recycling. Educating and advocating for sustainable packaging practices are crucial. Developing recycling infrastructure and

incentivizing glass recycling through policy changes are essential for minimizing waste and fostering a circular economy.

### **Styrofoam**

Styrofoam waste implicates various SDGs, particularly SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action).

Styrofoam, or expanded polystyrene (EPS), is a widely used plastic material in packaging and construction, posing environmental challenges due to its non-biodegradable nature and harmful manufacturing processes. Its production involves fossil fuels and emits greenhouse gases, while improper disposal releases methane in landfills. To address this, individuals can reduce consumption, opt for reusable or biodegradable alternatives, and advocate for policy changes banning single-use Styrofoam products. Reusing containers and supporting clean-up efforts also mitigate environmental harm. Educating others about sustainable practices further promotes environmental sustainability by minimizing Styrofoam waste and its impact on ecosystems.

### **Single-use plastic**

Single-use plastics waste align with several SDGs, primarily focusing on SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 14 (Life below Water).

Single-use plastics, such as bags and packaging, pose environmental threats due to their non-biodegradable nature and persistence, contaminating land and water and entering the food chain as microplastics. Unsustainable consumption and production patterns underlie their proliferation, demanding significant fossil fuel usage and causing pollution. To combat this, individuals can reduce consumption by opting for reusable alternatives, refuse single-use plastics to drive business change, and promote proper disposal and recycling. Supporting alternatives, implementing bans, improving recycling infrastructure, and raising awareness are crucial steps in effectively addressing single-use plastics waste and promoting environmental sustainability.

### **Rubber**

Rubber waste intersects with several SDGs, SDG 12 (Responsible Consumption and Production), SDG 11 (Sustainable Cities and Community), SDG 13 (Climate Action).

Rubber waste, including discarded tires and industrial components, poses environmental risks through improper disposal methods like landfilling and burning, releasing harmful chemicals and greenhouse gases. Slow decomposition in landfills and space occupation exacerbate pollution. Despite recycling benefits, management is challenging due to bulk and composition diversity. Effective solutions involve promoting recycling and reuse initiatives, implementing regulations like extended producer responsibility schemes and landfill bans on whole tires, and educating the public about environmental impacts and eco-friendly alternatives. These measures encourage responsible waste management

among manufacturers and consumers, ultimately reducing rubber waste and its adverse effects on the environment.

### **Used syringe**

Infectious waste aligns with several SDGs, primarily SDG 3(Good health and Well-being), SDG 11 (Sustainable Cities and Communities), SDG 12(Responsible Consumption and Production).

Used syringe waste presents significant health and environmental risks due to its potential to transmit blood-borne pathogens and cause needlestick injuries. Classified as infectious or biomedical waste, improper disposal can lead to contamination of soil and groundwater, posing hazards to waste handlers and the public. Addressing used syringe waste requires a multifaceted approach. Safe disposal practices, education, and training are crucial to minimize risks of needlestick injuries and environmental contamination. Community-based programs and government regulations ensure compliance and facilitate safe disposal.

### **Used Mask**

Used mask waste relates to several SDGs, SDG 3(Good Health and Well-being), SDG 11 (Sustainable Cities and Communities), SDG 12(Responsible Consumption and Production).

Used face mask waste, a byproduct of the COVID-19 pandemic, poses environmental and health risks due to non-biodegradable materials like polypropylene and potential pathogen transmission. Challenges in handling and disposal require proper protocols. Effective solutions involve promoting reusable masks, educating on proper disposal, organizing clean-up campaigns, establishing recycling programs, investing in research, enforcing regulations, raising public awareness, and engaging communities in collaborative efforts for sustainable waste management. These measures mitigate environmental pollution and health hazards associated with used mask waste, promoting a safer and cleaner environment amidst the pandemic.

### **Medical Waste**

Medical Wastes aligns with several SDG, specifically SDG 3 (Good Health and Well Being), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production).

Medical waste, encompassing items like surgical gloves and blood tubes, poses health and environmental risks if mishandled. Improper disposal can lead to infections, injuries, and pollution. Effective management is crucial to safeguard public health, protect the environment, and ensure healthcare worker safety. Key actions include source segregation, worker training, technology investment for treatment, regulatory compliance, waste minimization, exploring recycling, and public awareness campaigns. By adhering to these measures, healthcare facilities can mitigate risks, minimize environmental impact, and promote sustainable waste management practices, thus fostering a safer and cleaner healthcare environment.

## **Paper Products**

Paper products waste aligns with several UN SDGs, primarily focusing on SDG 12(Responsible Consumption and Production), SDG 11(Sustainable Cities and Communities), SDG 13(Climate Action).

Paper waste, including newspapers and cardboard, forms a substantial part of municipal solid waste, leading to environmental concerns if improperly disposed. However, paper is highly recyclable, cutting resource usage and greenhouse gas emissions. Efficient waste management entails collection, sorting, and recycling, aided by curbside programs and sustainable practices. Initiatives like waste audits and awareness campaigns, alongside supportive policies, play a vital role. Addressing paper waste involves reducing consumption, recycling, composting, opting for sustainable sources, and advocating for policies favoring waste reduction. These efforts collectively minimize the environmental impact, fostering sustainable paper consumption and disposal practices.

## **Leftover Food**

Leftover food falls under several SDGs, including SDG 2(Zero Hunger), SDG 12(Responsible Consumption and Production), SDG 13(Climate Action).

Leftover food waste poses a global challenge, stemming from overproduction and consumer behavior, with adverse environmental, social, and economic impacts. Measures to address it include preventing overbuying through meal planning, donating surplus food, and composting organic waste. Encouraging portion control, proper storage, and raising awareness are vital. Advocacy for supportive policies can incentivize waste reduction efforts. Proactive steps at individual and policy levels, such as meal planning, donation, composting, and advocacy, collectively mitigate the impacts of food waste, promoting sustainable practices and resource conservation.

## **Fruit and vegetable**

Fruit and vegetable peels waste align primarily with SDGs related to, SDG 12(Responsible Consumption and Production), SDG 11(Sustainable Cities and Communities), SDG 13(Climate Action).

Fruit and vegetable peel waste, often discarded despite containing valuable nutrients, contributes to organic waste accumulation and greenhouse gas emissions. To address this, individuals can compost peels for nutrient-rich soil, use them in cooking for flavor and nutrition, and preserve them for future use. Educating about their value and culinary uses promotes consumption and waste reduction. By composting, cooking with, and preserving fruit and vegetable peels, individuals and communities can contribute to reducing waste and fostering sustainable food consumption practices, mitigating environmental impacts.