#### **About Indorama Ventures**

**Plastic resins** 

PET

PEI

bottles

PTA

Indorama Ventures Public Company Limited (IVL), a registered company that trades on the Stock Exchange of Thailand (ticker symbol: IVL), is a leading international petrochemical company with production plants around the world including in Africa, Asia, Europe, North America and South America. We produce core necessity products and high value-added products (HVA) in the polymer, fiber and packaging product groups. Our production integration covers leading raw materials such as ethylene oxide/glycol and PTA. IVL products meet the needs of customers in the industrial groups of consumer products, food and beverages, hygienic products such as inner tubes and safety products.

EO/EG

Yarn &

**Fibers** 

# 

SCAN THE QR CODE TO READ SOME FUN FACTS ABOUT PET!

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Let's learn about plastics!



is a recyclable plastic

# **Plastics:**

# **Types and uses**



**PET (Polyethylene Terephthalate)** Drinking water bottles, food canisters, clothing, carpets, mouthwash bottles, food containers and bottles for some types of shampoo

Safe, clear, hard, impact-resistant. hard to crack. prevents gases from passing through, easy to be recycled

> Hard. stiff. hard to crack,

and resistant

to chemicals

Strong, resistant to acids

and fire resistant

Soft. highly stretchable

clear, durable

but not resistant

to heat

Hard, stiff,

resistant to heat and oil

(microwavable)

Hard. clear. but easy to crack



HDPE (High Density Polyethylene) Bottle caps, bottles for detergent and bleach,

snack boxes, milk bottles, toys, buckets, crates, tree pots. outdoor furniture and bins



#### **PVC (Polyvinylchloride)**

Credit cards, door and window frames, gutters, pipes and joints, wire and cable jackets, faux leather and bags for hot foods



#### LDPE (Low Density Polyethylene)

Wrapping films, shopping bags, bubble wraps, cold food bags, highly flexible bottles, wire and cable insulations



#### Polypropylene (PP)

Plastic straws, food containers, ice boxes, carpets, canvases, and diapers



#### Polystyrene (PS)

Foam cups, egg trays, meat trays, cloth hangers, insulation, yoghurt cups, toys, forks and spoons



**Other plastics** 

Nylon fibers, baby bottles, discs, medical equipment boxes, automotive parts and gallon jugs What is

S safe?

PET, the short-form for Polyethylene Terephthalate, is a synthetic compound from chemical reactions of ethylene glycol produced by crude oil and natural gas, and purified terephthalic acid (PTA). PET is stiff, durable, but flexible, and can be formed into various shapes. This is why it is widely used to make packaging as well as clothes (under the name "polyester"). PET is popular because it is safe to use, in addition to being lightweight, transparent, and affordable, and can also be easily recycled into fibers which can then be

used to make all sorts of things.

Normally, substances released from containers have a low level of molecules or can evaporate. However, PET used in food containers contains higher molecules and are unlikely to release the compound substances. Many international institutes such as the American Plastics Council. US Food and Drug Administration (FDA) and New Zealand Food Safety Authority (NZFSA) confirm that raw materials used in making PET bottles contain no carcinogens, and that PET is safe and approved for use as food containers.

### Is it dangerous to leave **PET bottles exposed in** the sun for a long time?

PET bottles have been approved by the US FDA and are resistant to 70-100 degrees Celsius. According to published academic research, dioxins (a carcinogen), is not found in PET bottles which have been left in a car. The reason is that PET is a type of plastic without chlorine, so PET bottles are safe.

## **Do PET bottles** contain BPA?

PET bottles are safe and do not contain BPA (Bisphenol A). BPA is a substance that is only found in polypropylene bottles. More importantly, BPA is not a carcinogen but it may affect the body's hormonal system.

#### Is it safe to reuse **PET bottles?**

PET bottles are normally single-use, however, they can be reused after being properly cleaned and left to dry in order to eliminate any microbes or bacteria. In addition, if you notice any scratches or cracks on the surface of the bottle, it means that the plastic is starting to deteriorate and should not be reused.