

# rPHB04 (OUCC® TopGreen surfactant)

Chemical Name : Terephthalic acid ethylene glycol polyethylene glycol polymer

CAS Number : 9016-88-0 & 25322-68-3



## Product Description

PET, or Polyethylene Terephthalate, is used to package 70% of carbonated soft drinks, fruit juices, dilutable drinks and bottled water. This unique material is vitally important as what our products are packaged with can have significant impacts for our environment and the sustainability of our economy. **TOPGREEN®** surfactant is an outstanding environment-friendly product based on the material of recycled post-consumer PET bottles, which were processed through grinding, washing and transforming into bio-degradable non-ionic surfactant.

The **rPHB04** is one of our first generation **TOPGREEN®** surfactant product from recycled PET bottles. It has same to even better detergency than traditional surfactant **EVOXs™ L78**, and being compatible with other ingredients in laundry detergents and additives in many industrial cleaners. The **rPHB04** has advantage of carbon emission reduction for cleaner producer to achieve environmental sustainability goal and contribute downstream users to forge a sustainable life on earth.

## Product Flowchart



## Sales Specification (Tentative)

Property	Unit	Value	Method
Appearance	--	Clear liquid	5% aq. @30°C
Color	APHA	10 max.	@30°C
Solid content	%	99.0 min	70°C oven
HLB	--	13~15	--

## Typical Properties

Property	Unit	Value	Method
OHV	mgKOH/g	100~130	Titration
Viscosity	c.PS	700~900	@30°C
Recycled content	wt%	20.0 min.	--
Biodegradability	wt%	97.0 min.	CNS 4984

## Application

- Laundry detergent
- Textile dyeing & finishing auxiliaries

## Evaluation of Detergency

Standard Soiled Cloth Test	Stained with mineral oil & carbon black		Stained with Plant oil & carbon black	
	Brightness (L)	Detergency (%)	Brightness (L)	Detergency (%)
Before wash <sup>a</sup>	54.2±0.2	0.0	47.6±0.1	0.0
Washed by water only	54.9±0.1	1.3	51.8±0.1	8.8
Washed by SLES*	57.0±0.2	5.2	52.9±0.1	11.1
Washed by rPHB04 #1	57.1±0.2	<b>5.3</b>	52.9±0.2	<b>11.1</b>
Washed by rPHB04 #2	56.7±0.1	<b>4.6</b>	53.2±0.1	<b>11.7</b>

\*SLES = Sodium Lauryl Ether Sulfate

Washing condition: detergent 1500ppm, standard soiled cloth, wash machine for 10minutes

Detergency = (Brightness after wash – Brightness before wash<sup>a</sup>) / Brightness before wash<sup>a</sup>

### Usage Suggestion

- Keeping 15 wt% rPHB04 in original laundry formulation for Taiwan market

### Standard Packing

200kg per steel drum, 80 drums per 20' FCL (16.0MT)

### Shelf Life

OUCC will endorse the results on the certificate of analysis (COA) for a period of up 1 year from the date of manufacture for material in original, unopened, properly stored containers. Beyond one year from this COA issuing date, we recommend the material should be reexamined to ensure that it is still suitable for use, and use it up within three months from original packing was opened.

### Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Avoid direct exposure to sunlight.

### WARNING

The information contained in this document is given in good faith and based on our current knowledge. It is only an indication and is in no way binding, notably as regards infringement of or prejudice to third parties through the use of our products. OUCC GUARANTEES THAT ITS PRODUCTS COMPLY WITH ITS SALES SPECIFICATIONS.

This information must on no account be used as a substitute for necessary prior tests which alone can ensure that a product is suitable for a given use. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorizations. Users are requested to check that they are in possession of the latest version of the present document and OUCC is at their disposal to supply any additional information.

### Oriental Union Chemical Corporation

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# rPHB06

Chemical Name : Terephthalic acid ethylene glycol polyethylene glycol polymer

CAS Number : 9016-88-0 & 25322-68-3

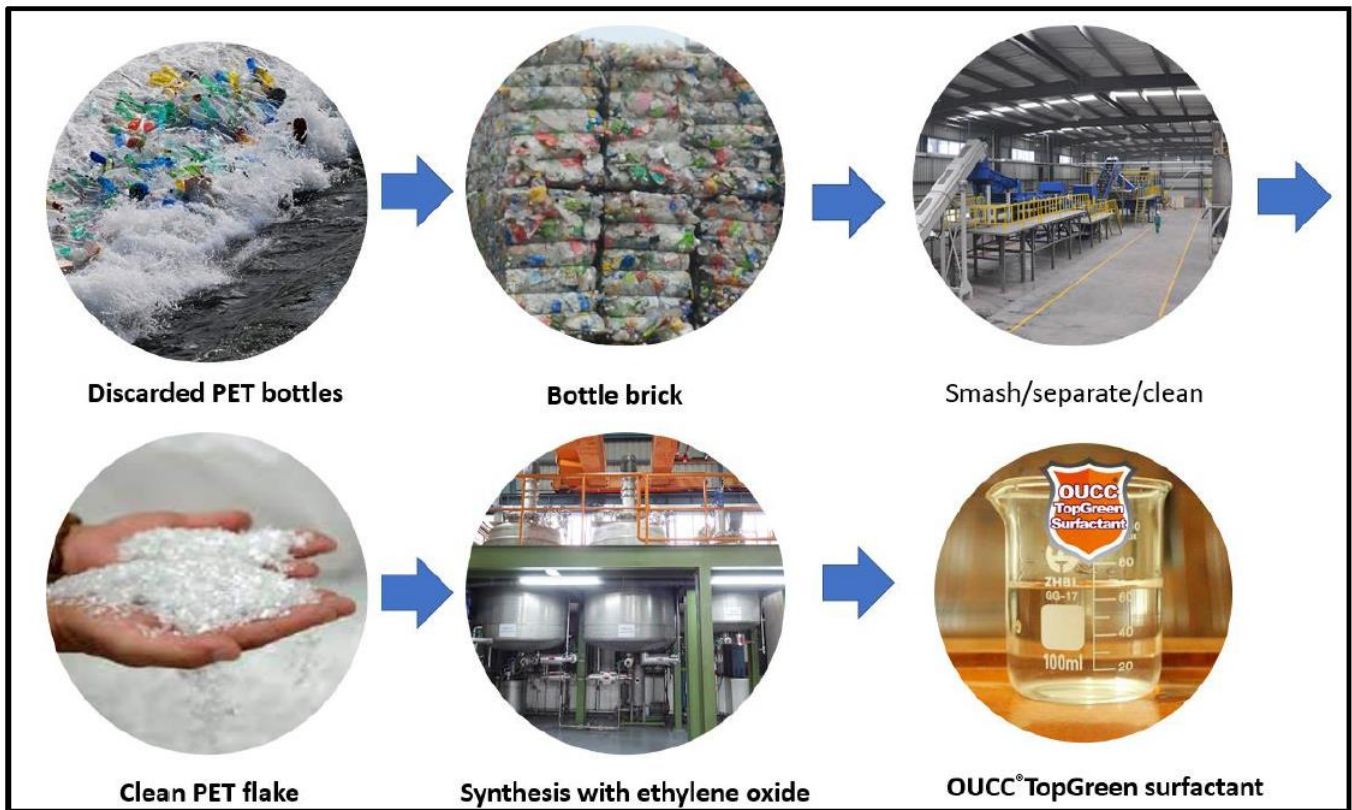


## Product Description

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The **rPHB06** is made from recycled PET bottles (more than 50wt% recycled PET content). It contains basic moiety after chemical degradation on recycled-PET, which with di-functional hydroxyl group at both ends. The **rPHB06** could be applied widely to the industries of daily chemicals, textile, construction, coatings, plastics, PU, and so on. The rPHB06 has advantage of carbon emission reduction for polymer producer to achieve environmental sustainability goal and contribute downstream users to forge a sustainable life on earth.

## Product Flowchart



## Sales Specification (Tentative)

Property	Unit	Value	Method
Appearance	--	Yellow turbid	5% aq. @30°C
Color	APHA	10 max.	@30°C
Solid content	%	99.0 min.	70°C oven
HLB	--	8~10	--

## Typical Properties

Property	Unit	Value	Method
OHV	mgKOH/g	270~300	Titration
Viscosity	c.PS	1,000~1,200	@30°C
Recycled content	wt%	50.0 min.	--

## Application

- Raw materials for dyeing and finishing agent, synthetic resin, Paint, Coating, Adhesive, Sealant, rigid foam and elastomer
- Emulsifiers and wetting agents in textile, leather dyeing, and paper industries
- Dispersant in paints and coating

## Standard Packing

200kg per steel drum, 80 drums per 20' FCL (16.0MT)

## Shelf Life

OUCC will endorse the results on the certificate of analysis (COA) for a period of up 1 year from the date of manufacture for material in original, unopened, properly stored containers. Beyond one year from this COA issuing date, we recommend the material should be reexamined to ensure that it is still suitable for use, and use it up within three months from original packing was opened.

## Handling and Storage

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