



## Navigating Palm Oil Sustainability Demands

The Roundtable on Sustainable Palm Oil (RSPO) was established to promote the growth and use of palm oil through cooperation within the supply chain and open dialogue with its stakeholders.

Key principals of RSPO :

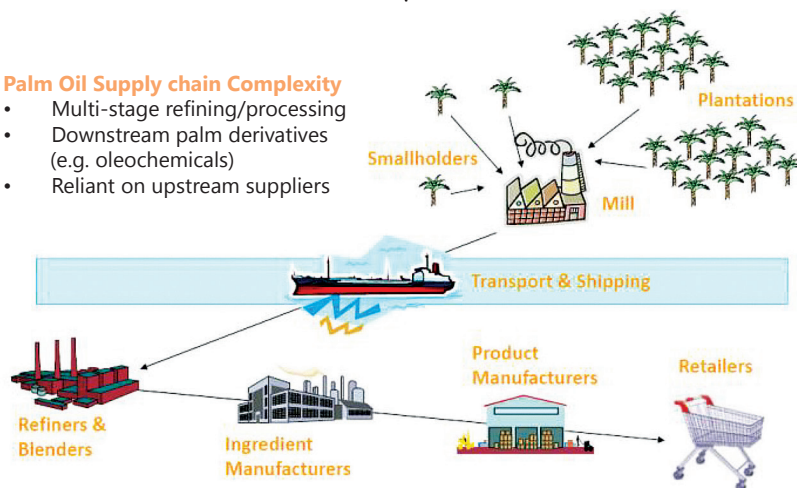
- Respect for rights of land owners, farmworkers, smallholders and families

- No primary forests or high conservation value areas sacrificed for new oil palm plantations

Sustainability is defined as the capability of meeting the needs of the present without compromising the ability of future generations to meet their own needs.

### Palm Oil Supply chain Complexity

- Multi-stage refining/processing
- Downstream palm derivatives (e.g. oleochemicals)
- Reliant on upstream suppliers



Recognising the complexity of the palm oil supply chain, the RSPO Supply Chain Certification Standard (SCCS) is categorised into multiple supply chain models :

- **R1 : Identity Preserved (IP)** – Sustainable oil kept apart, traceable to plantation
- **R2 : Segregated (SG)** – Mixing of sustainable palm oil batches is allowed
- **R3 : Mass Balance (MB)** – Mixing of sustainable and conventional oil allowed if monitored administratively through RSPO eTrace system
- **GreenPalm : Book & Claim** – No physical traceability, certification and monitoring by GreenPalm

**Futura Ingredients** is committed to meeting customers needs for non-palm and RSPO SCCS certified emulsifiers as the demand for sustainable products by retailers and consumers grows. We are certified by SIRIM QAS International to manufacture RSPO **Segregated** and **Mass Balance** food emulsifiers.



## KEY BENEFITS

- Meeting retailers & consumers sustainability concerns
- Non-palm emulsifiers for product labelling challenges

## Product Portfolio as of 2016

### RSPO Mass Balance - Ekömul Distilled Monoglycerides & Mono and Di-glycerides and Emulsifier Blends

PRODUCT CATEGORY	PRODUCT NAME	MONO MIN. (%)	IV	PALM BASED	PROPERTIES
Distilled Monoglycerides & Mono and Di-glycerides	Ekömul MG 45 HP (R3) - MB	45	Max 3	Y	Saturated MDG
	Ekömul MG 55 HP (R3) - MB	55	Max 3	Y	Saturated MDG
	Ekömul MG 60 HP (R3) - MB	60	Max 3	Y	Saturated MDG
	Ekömul MG 95 HP (R3) - MB	95	Max 2	Y	Bead, Powder, Fine Powder; C18: 35 - 45%
	Ekömul MG 95 HO (R3) - MB	95	Max 2	Y	Bead, Powder, Fine Powder; C18: 46 - 56%
	Ekömul MG 95 HO FLOW - 3FP (R3) - MB	95	Max 2	Y	Fine Powder with 3% Anti-Caking Agent
	Ekömul XTND 95 P (R3) - MB	95	18-26	Y	Water Dispersible DMG
	Ekömul XTND 95 N (R3) - MB	95	17-26	Y	Water Dispersible DMG
	Ekömul XTND 95 D (R3) - MB	95	20-27	Y	Water Dispersible DMG
	Ekömul XTND 90 A (R3) - MB	90	27-35	Y	Water Dispersible DMG
	Ekömul FASE 45 HP (R3) - MB	45	Max 3	Y	Self Emulsifying MDG
	Ekömul FASE 80 HP (R3) - MB	80	Max 2	Y	Self Emulsifying MDG
Emulsifier Blends	Ekömul MYXT 275 XTl (R3) - MB	70	17 - 24	Y	Beaded
	Ekömul MYXT 370 XTl (R3) - MB	70	10 - 17	Y	Beaded
	Ekömul MYXT 220 KRI (R3) - MB	20	Max 3	Y	Beaded
	Ekömul MYXT 260 PEI (R3) - MB	60	Max 3	Y	Beaded

### RSPO Mass Balance - Ekölite Food Esters

PRODUCT CATEGORY	PRODUCT NAME	IV	PALM BASED	PROPERTIES
Sodium Stearoyl Lactylates	Ekölite SL 68 S (R3) - MB	-	Y	Low Lactic SSL, EV 130-160
	Ekölite SL 70 S (R3) - MB	-	Y	High Lactic SSL, EV 150-190
	Ekölite SL 68 PS (R3) - MB	-	Y	Low Lactic SSL, EV 130-160, High C18
	Ekölite SL 70 PS (R3) - MB	-	Y	High Lactic SSL, EV 150-190, High C18
Polyglycerol Esters	Ekölite PE 02 P (R3) - MB	Max 3	Y	Diglycerol Monostearate
	Ekölite PE 03 P (R3) - MB	Max 3	Y	Triglycerol Monostearate
Sorbitan Esters	Ekölite SE 65 S (R3) - MB	Max 7	Y	Sorbitan Tristearate
	Ekölite SE 65 L (R3) - MB	Max 1	Y	Sorbitan Tristearate
	Ekölite SE 60 S (R3) - MB	Max 10	Y	Sorbitan Monostearate

### RSPO Mass Balance - Ekölite Fat Crystallisers

PRODUCT CATEGORY	PRODUCT NAME	IV	PALM BASED	PROPERTIES
Fat Crystallisers	Ekölite KRYS 01 S (R3) - MB	Max 2	Y	Beaded
	Ekölite KRYS 02 S (R3) - MB	Max 21	Y	Beaded, Non-Hydrogenated
	Ekölite KRYS 03 S (R3) - MB	Max 2	Y	Beaded

### RSPO Segregated - Ekömul Distilled Monoglycerides & Mono and Di-glycerides

PRODUCT CATEGORY	PRODUCT NAME	MONO MIN. (%)	IV	PALM BASED	PROPERTIES
Distilled Monoglycerides & Mono and Di-glycerides	Ekömul MG 45 HP (R2) - SG	45	Max 3	Y	Saturated MDG
	Ekömul MG 55 HP (R2) - SG	55	Max 3	Y	Saturated MDG
	Ekömul MG 60 HP (R2) - SG	60	Max 3	Y	Saturated MDG
	Ekömul MG 95 HP (R2) - SG	95	Max 2	Y	Bead, Powder, Fine Powder; C18: 35 - 45%
	Ekömul MG 95 HO (R2) - SG	95	Max 2	Y	Bead, Powder, Fine Powder; C18: 46 - 56%
	Ekömul MG 95 HO FLOW - 3FP (R2) - SG	95	Max 2	Y	Fine Powder with 3% Anti-Caking Agent
	Ekömul FASE 45 HP (R2) - SG	45	Max 3	Y	Self Emulsifying MDG
	Ekömul FASE 80 HP (R2) - SG	80	Max 2	Y	Self Emulsifying MDG
Emulsifier Blends	Ekömul MYXT 220 KRI (R2) - SG	20	Max 3	Y	Beaded

### RSPO Segregated - Ekölite Food Esters & Fat Crystallisers

PRODUCT CATEGORY	PRODUCT NAME	IV	PALM BASED	PROPERTIES
Sodium Stearoyl Lactylates	Ekölite SL 68 S (R2) - SG	-	Y	Low Lactic SSL, EV 130-160
	Ekölite SL 70 S (R2) - SG	-	Y	High Lactic SSL, EV 150-190
Fat Crystallisers	Ekölite KRYS 01 S (R2) - SG	Max 2	Y	Beaded
	Ekölite KRYS 03 S (R2) - SG	Max 2	Y	Beaded



**Winner of  
Frost & Sullivan's  
2016 Best Practices Award  
Entrepreneurial Company  
of the Year**

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### Non-Palm Ekömul and Ekölite Product Range

PRODUCT CATEGORY	PRODUCT NAME	MONO MIN. (%)	IV	FEEDSTOCK	PROPERTIES
Distilled Monoglycerides	Ekömul MG 95 HVX	95	Max 2	SBO	Bead, Powder, Fine Powder
	Ekömul MG 95 HVX FLOW - 3FP	95	Max 2	SBO	Fine Powder with 3% Anti-Caking Agent
	Ekömul MG 95 HRX	95	Max 2	RSO	Bead, Powder, Fine Powder
	Ekömul MG 90 SX	90	95-110	SFO	Paste
Sodium Stearoyl Lactylates	Ekölite SL 68 V	-	-	SBO	Low Lactic SSL, EV 130-160
	Ekölite SL 70 V	-	-	SBO	High Lactic SSL, EV 150-190
	Ekölite SL 68 R	-	-	RSO	Low Lactic SSL, EV 130-160
	Ekölite SL 70 R	-	-	RSO	High Lactic SSL, EV 150-190
Propylene Glycol Esters	Ekölite PG 95 S	95	Max 3	RSO	Propylene Glycol Monostearate
Fat Crystallisers	Ekölite KRY5 04 V		Max 2	SBO	Beaded
	Ekölite KRY5 05 R		Max 2	RSO	Beaded

Kindly contact us for more details on product specifications and product availability.

#### Disclaimer

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