



Yours partner for Success

CIOC 2007

油脂化学工业在中国的发展 Oleochemical Industry Development in China

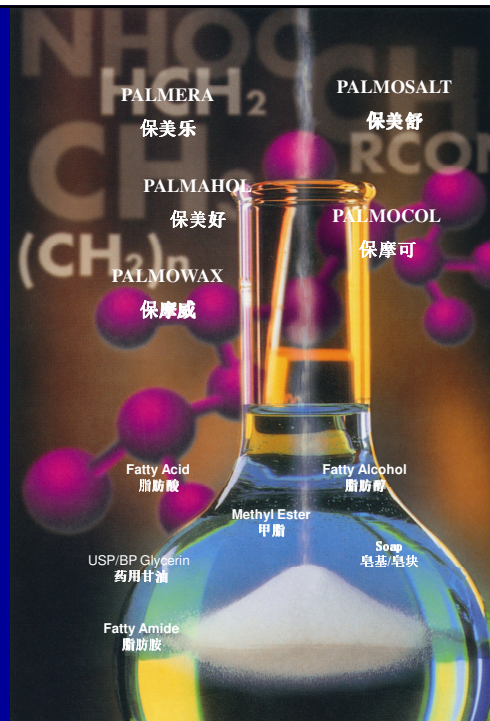
吴世傑，泰柯棕化（张家港）有限公司
Derek Ng, Taiko Palm-Oleo (ZJG) Co., Ltd.



Yours partner for Success

我们的网址
OUR WEBSITE

WWW.KLKOLEO.COM.MY



食用油脂 Oils & Fat

用于 for

食品 / FOODS

皂 / SOAP

油化工 / OLEOCHEMICAL

生物柴油 / FUEL

到底那个重要？ Which is our priority？

烧掉.. 用掉...吃掉 / Burn ... Used as Oleochemical... Foods

食品燃油

Food for Fuel

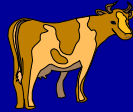
混乱的世界 !!!

THE WORLD with Confusion !!!

油化生产 The Production of Oleochemicals

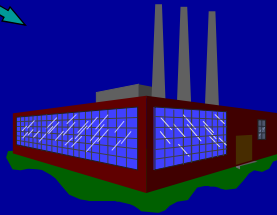


植物油/Vegetable oils :
棕榈palm, 椰子coconut,
菜籽rapeseed,
sunflower, etc.



动物Animal fats, 鱼
油Fish oils

用于Used in :



油脂化工厂
Oleochemical plant

皂, 洗涤Soap & detergents
化工 Chemical synthesis
食品添加剂 Food & Feed additives
化妆品Cosmetics
药物Pharmaceuticals
涂料Paints
纺织Textile products
聚合物Polymer additives
橡胶Rubber additives
纸 Paper additives
农化 Agrochemicals
燃油 Fuel additives
润滑剂Lubricants
探油Offshore chemicals



中国油脂化工的历史和发展 China Oleochemical Industry History & Growth Overview

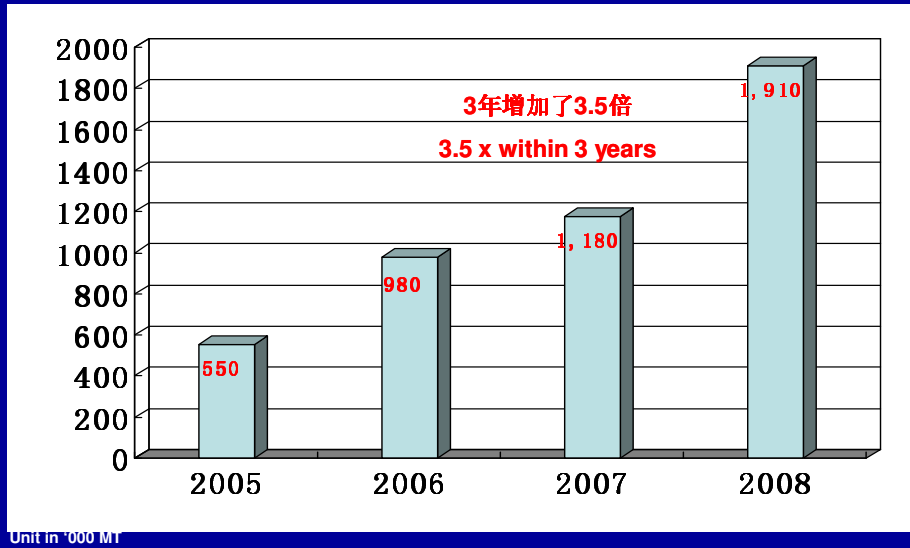
- 二十世纪50年代开始生产肥皂和甘油
1950's Soaps & Glycerin production
- 70年代早期, 中国建成首个1万吨/年的脂肪水解厂
Early 1970's – first 10KMT/yr Fat splitting capacity in China
- 90年代中期, 工业私有化
Mid 1990's Industry Privatization
- 2000年初, 脂肪水解能力达到40万吨/年
Early 2000's Fat splitting capacity around 400KMT
- 2006/07年, 脂肪酸水解能力达到110万吨/年
2006/07 Fat acid splitting capacity increase to 1.1 M MT

- 2008年，脂肪水解能力猛增到190万吨/年
2008 Fat Splitting capacity projection to 1.9 M MT
- 脂肪醇生产能力达到51万吨/，合成15万吨。
Fatty Alcohol capacity 510 KMT and Synthetic 150 KMT
- 截止2008年，前十名企业拥有总水解产能的80%。
Top 10 producers contributed 80% of the total splitting capacity by year 2008
- 包含皂化,年产量达到 280万吨/年
Total Estimate Oleochemicals (inclusive Soap) production volume 2.8 million ton

基础油脂化学工业的发展


Growth of Basic Oleochemical Industry


2005年到2008年中国油脂化工的发展—脂肪水解产能
Growth of Oleochemical between year 2005 to 2008
Fat Splitting Capacity



脂肪水解产能
Fat Splitting Capacity

公司/Company	产能预测/Capacity Estimate		
	2007	2008	
益海Wilmar/嘉里Kerry	300,000	510,000	SH, LYG, GZ
如皋双马/Rugao Shangma	120,000	200,000	
泰柯棕化/Taiko Palm-Oleo	120,000	150,000	Debottlenecking
关氏集团/Kwantas Group	-	100,000	Commissioning Oct 07
山东博兴/Shandong Boxing	80,000	120,000	
Teck Guan lugao	-	150,000	FA Commissioning by end 07
杭州油脂/Hangzhou Oil & Fat	20,000	80,000	New site ready by Mid 08
青岛碱业/Qindao Soda Ash	60,000	60,000	Plant build early 07
佳宝/JiaBao	-	60,000	New project by Mid 08
其他/Others	480,000	480,000	
合计/Total	1,180,000	1,910,000	

 Yours partner for Success 脂肪醇产能 Alcohol Production Capacity			
公司/Company	产能预测 Capacity estimate		
	天然脂肪醇 Natural Fatty Alcohol	合成醇 Synthetic Alcohol	
辽阳华兴化工/Liaoyang Huaxing	210,000		Expansion 100KMT
如皋德源/Rugao Deyuan	100,000		Mid 2008
连云港沙索/益海/Sasol Wilmar	60,000		End 2007
河南商丘龙宇化工/Shangyue	60,000		Expansion 30KMT
上海双乐/Shuangle	20,000		
无锡东泰/Dongtai	15,000		
大连华能化工/Huaneng	15,000		Stop production
其他/Others	30,000		
吉林化工/Jinlin		100,000	Stop production
阜顺洗化/Xihua		50,000	Stop production
合计/Total	510,000	150,000	

 Yours partner for Success 传统煮皂产能 Traditional Kettle Boiled Soap Production Capacity			
公司/Company	产能预测 Capacity Estimate		
	2007	2008	
浙江耐爱斯/Zhejiang Nice	100,000	100,000	
天津保洁/P&G Tianjin	60,000	60,000	
东马(关氏集团)/Dongma (Kwantas group)	-	80,000	GZ, Oct 07
淮阴光华/GuangHua	60,000	60,000	
浙江佳宝/Zhejiang Jiabao	60,000	60,000	
广东揭阳/GuangDong JieYang	20,000	40,000	
南风集团/Nafine	40,000	40,000	
浙江凤凰/Zhejiang FengHuang	30,000	30,000	
其他/Other	380,000	350,000	
合计/Total	750,000	800,000	

**脂肪酸皂条产能
Fatty Acid Soap Noodle Production Capacity**

公司/Company	产能预测 Capacity Estimate		
	2007	2008	
益海Wilmar/嘉里Kerry	130,000	195,000	SH, LYG, GZ
东马 (关氏集团) / Dongma (Kwantas group)	-	80,000	ZJG
泰柯棕化/Taiko Palm-Oleo	50,000	50,000	
浙江佳宝/Zhejiang Jiabao	-	65,000	Commissioning Oct 07
上海制皂/Shanghai Soap	30,000	30,000	
合计Total	210,000	420,000	

**中国油脂化工企业 (年产量低于2万吨)
Oleochemical Players in China
(less than 20KMT per year)**

苏杭, 山东, 四川, 内蒙, 石家庄

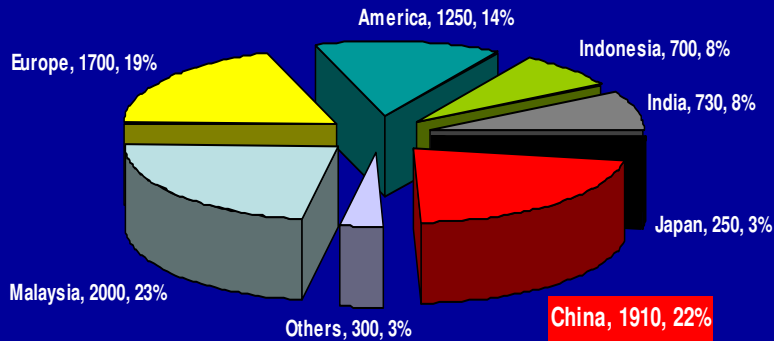
**主要产品: 硬脂酸金属盐、橡胶级硬脂酸、洗衣皂
Products Produced Mainly
Metallic Stearate, Rubber Grade Stearic Acid, Laundry Soap**

中国占据世界油脂化工产能的份额 (预计2008年水解能力)

China, her share in the World Oleochemical Capacity

(Estimated Splitting Capacity Projection for Year 2008)

预计2008年全世界总产能885万吨
OUT OF WOLRD CAPACITY 8.85 million ton



单位Unit in '000 MT

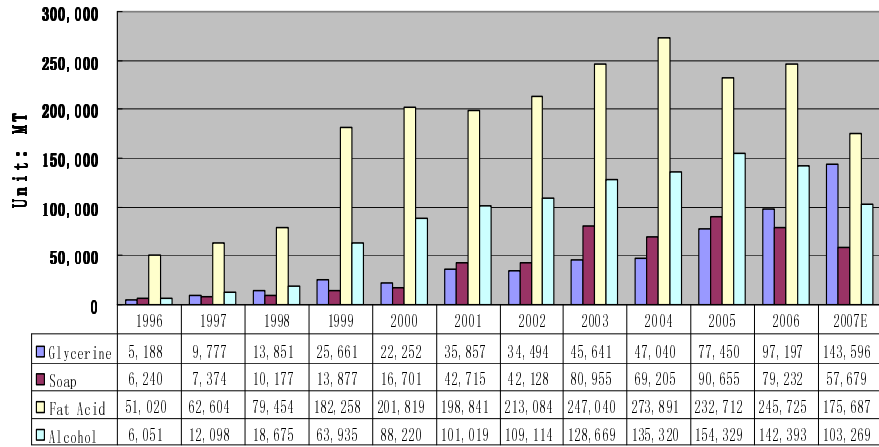
2007年市场规模预测

Market Size Estimate Year 2007

产品类别 Product Category	数量 Quantity	发展趋势 Growth indicator	2008年产能 Available Capacity 2008
肥皂Laundry Soap	650 KMT	→↑	1,370KMT
香皂Toilet Soap	250 KMT	↓	
脂肪酸Fatty Acids	700 KMT	↑	1,330KMT
甘油Glycerin	190KMT	↑	
脂肪醇Fatty Alcohol	340 KMT	↑	510KMT

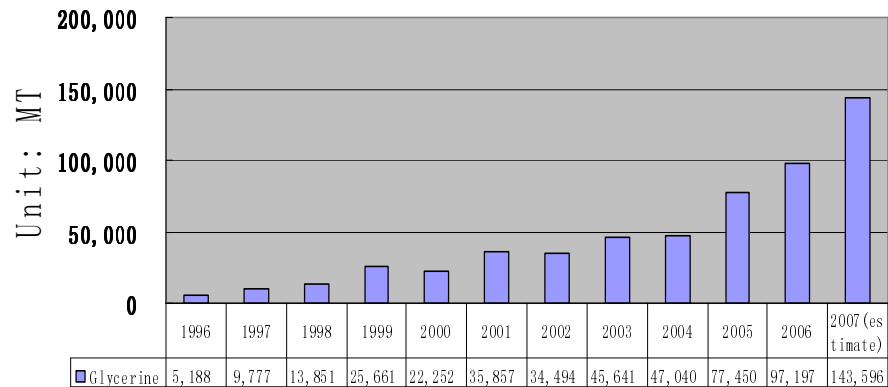
1996-2007 油化产品进口数据图表

1996-2007 Oleochemicals Import



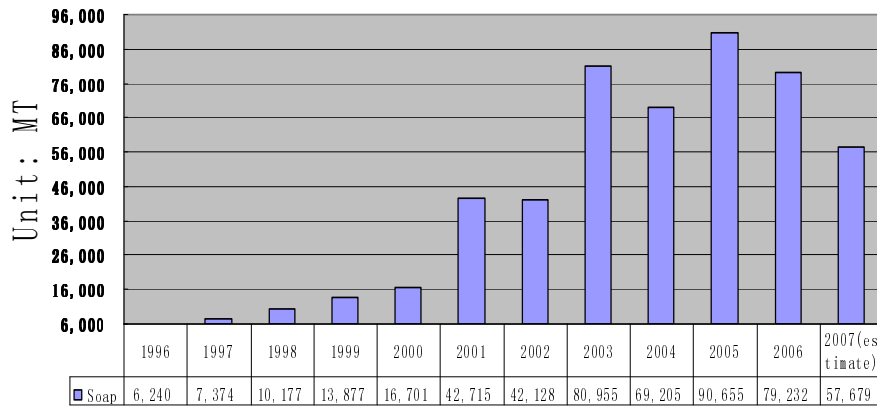
1996-2007 甘油进口数据图表

1996-2007 Glycerin Import



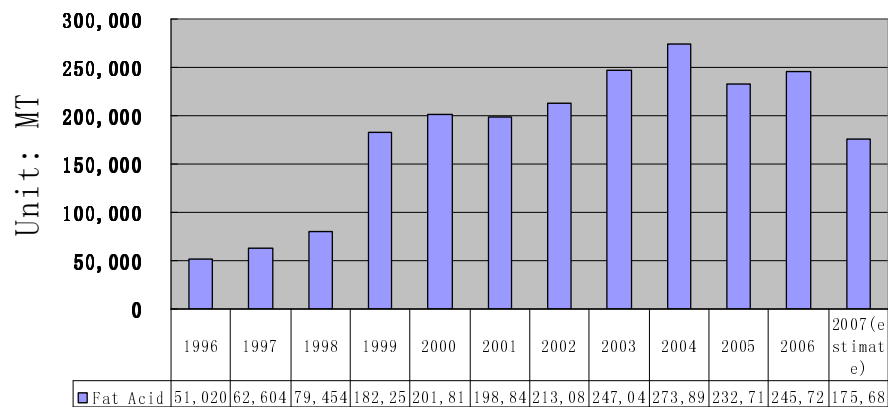
1996-2007 皂基进口数据图

1996-2007 Soap Import



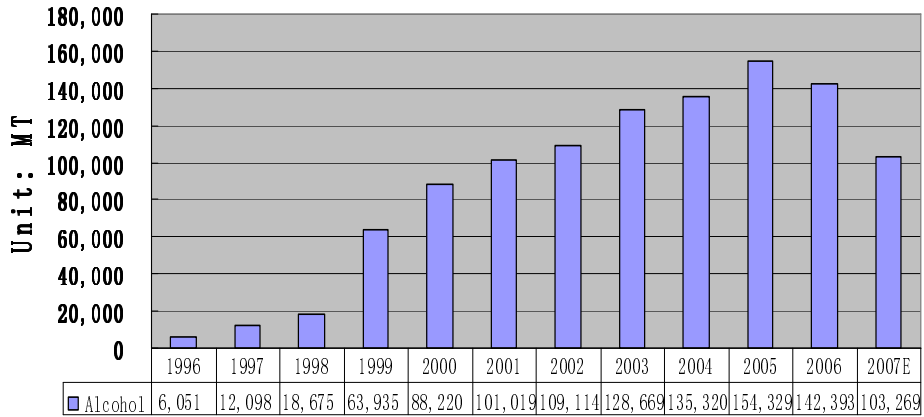
1996-2007 脂肪酸进口数据图表

1996-2007 Fatty Acid Import



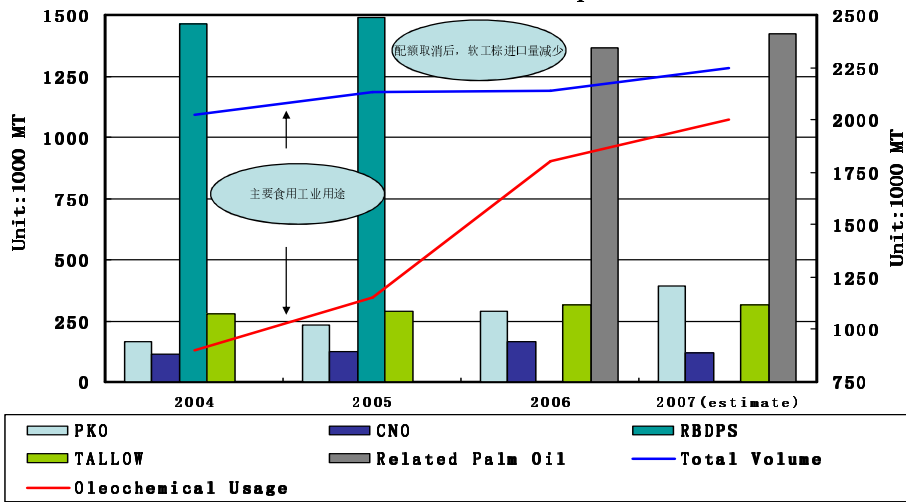
1996-2007 脂肪醇进口数据图表

1996-2007 Fatty Alcohol Import

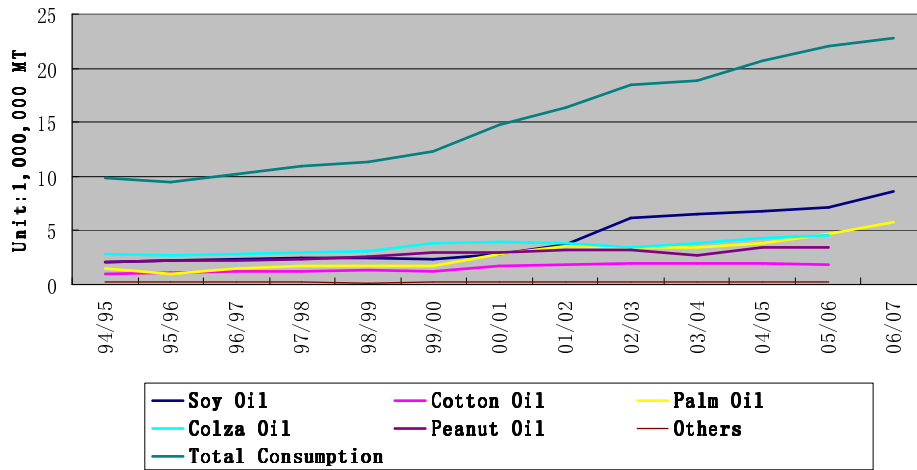


04-07 主要相关工业用途棕榈油进口图表

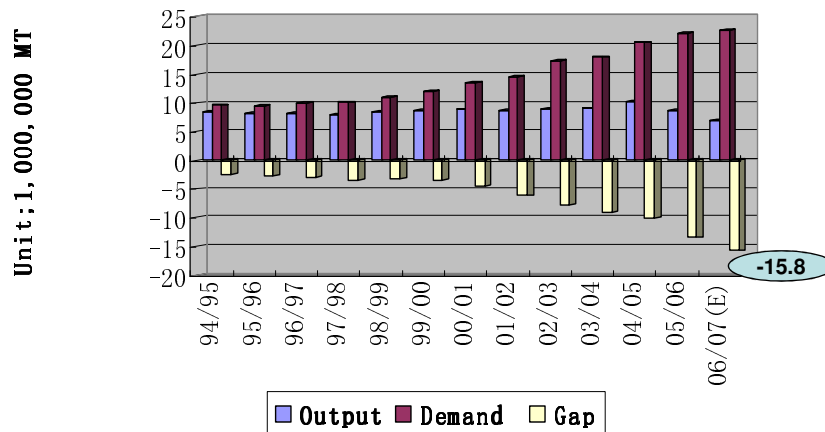
Related Industrial Oil Import Chart



中国植物油消费量 China Vegetable Oil Consumption

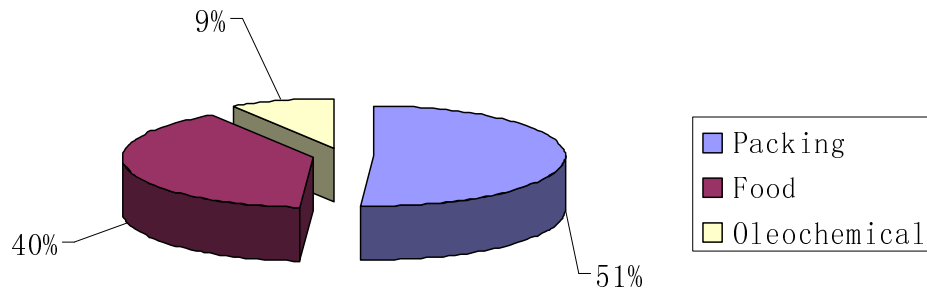


中国植物油供需 China Vegetable Oil Supply State



油脂的消费领域分布

Oil & Fat Consumption Distribution



总结 Summary

油脂化学工业在中国的发展 China Oleochemicals Development

- **Continuous Growth for Oil & Fat Usage for Oleochemical**
- **Almost 100% imported raw material dependence**
- **Major feeds - Tallow, RBDPST and CNO/CPKO**
- **Industrial oil & fat feed Material... The fight between Fuel and Oleochemical**
- **Mineral oil price dependence**

- **油脂化工下游产品制造业增长（尤其是纺织、造纸和日化、涂料、食品、化妆品、润滑剂酯和金属硬脂酸盐**
Increase oleochemical downstream manufacturing activity (especially for textile, paper and daily chemicals, coatings, food/ cosmetic/lubricant ester and metallic stearate).
- **甘油在环氧氯丙烷生产中的新应用，预计甘油的消费量继续增长**
Glycerin new application in ECH (Epichlorohydrin). Expect all biodiesel glycerin produced will be consumed by year 2009.
- **脂肪酸中和皂条取代传统的大锅煮皂。**
Fatty Acid Neutralized Soap Noodle replacing traditional kettle boiled toilet soap.
- **脂肪醇生产能力将取代石化合成醇表面活性剂**
Fatty Alcohol production will be more than sufficient replacing the mineral oils source surfactant.
- **MES 的发展**
The development into MES.

中国基础油脂化工制造者面临的挑战

CHINA BASIC OLEOCHEMICAL MANUFACTURER'S CHALLENGES

- 供应需求平衡（产品、季节性影响）
Supply & Demand Balance (i.e. products, seasonal impact)
- 原料
Feed Stock
- 进口竞争（关税和物流成本）
Import Competition (duty and logistic cost)
- 中国贸易出口控制措施
China Trade Surplus & Export Control Measure

- 更多的油脂化工下游产品制造活动
More Oleochemical Downstream Manufacturing Activity
- 工业重组（由于国家提高环境 and 安全标准，国内油脂化工業者，不得不增加投资来改进技术）
Industry Reconsolidation (due to Environmental and Safety Standards, upgrading of local oleochemical players with cheaper investment & improvement technology)
- 中国的出口（区域性定价影响和稳定性）
China Nett Exporter (Regional Pricing Impact and Stability)

中国油脂化工产品进口关税 Import Duty for Oleochemical Products

海关编码 Custom Code	产品 Product	进口关税 (东盟贸易协议) Import Duty (AFTA)		
		2007	2009	2010
15200000	毛甘油/Crude Glycerin	12	5	0
29054500	精炼甘油/Refine Glycerin	8	5	0
34011100				
34011910	洗衣皂/Laundry Soap	8	5	0
34012000	其他类型肥皂/Other form of Soap	0	0	0
38231100	硬脂酸/Stearic Acid	0	0	0
38231200	油酸/Oleic Acid	8	5	0
38237000	工业用脂肪醇/Industrial Use Fatty Alcohol	8	5	0

中国油脂进口关税 China Import Duty for Oils & Fats

海关编码 Custom Code	产品 Product	进口关税 (东盟贸易协议) Import Duty (AFTA)		
		2007	2009	2010
15111000	毛棕榈油/Crude Palm Oils	9	T.B.T	T.B.T
15119010	棕榈油酸酯/Palm Olein	9	T.B.T	T.B.T
15119020	棕榈硬脂/Palm Stearin	8	T.B.T	T.B.T
15119090	其他/Others	9	T.B.T	T.B.T
15121100	毛椰子油/Crude Coconut Oils	0	T.B.T	T.B.T
15121900	其他/Others	0	T.B.T	T.B.T
15132100	毛棕榈仁油/Crude Palm Kernel Oils	0	T.B.T	T.B.T
15132900	其他/Others	0	T.B.T	T.B.T
15020090	牛羊油/Tallow	7	T.B.T	T.B.T

T.B.T : 待定 to be determined

THANK YOU