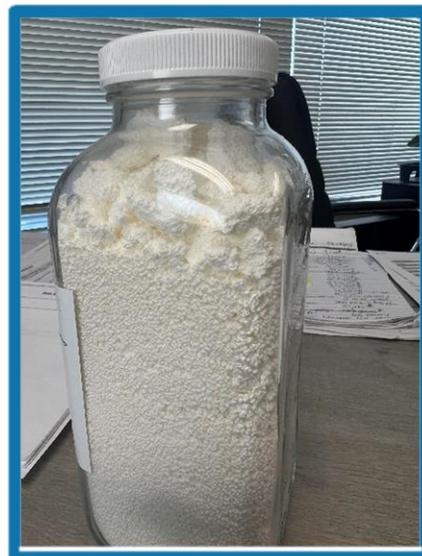


## Offer Sheet

Product	AKD Wax (Alkyl Ketene Dimer)
Quantity	64 pallets of supersacks
Net weight	~71,000 lbs.
Age	7 years old, has small chunks that break in your hand
Availability	One time
Price indication	70% below market price
Location	Pennsylvania
Date	3/27/26
COA & SDS	Attached below



**Brian Svrusis**  
Solvent Systems International  
575 Bennett Road  
Elk Grove Village, IL 60007  
847-323-6718 call or text  
Click here for: [Surplus Inventory](#)

**AKD wax (Alkyl Ketene Dimer)** is a **reactive hydrophobic sizing agent** used primarily to impart **water resistance to cellulosic materials**—especially paper and paperboard.

---

#### Chemical identity

- **Name:** Alkyl Ketene Dimer (AKD)
- **Type:** Reactive wax / sizing agent
- **Structure:** Long-chain fatty alkyl groups (C16–C18 typically) with a reactive ketene dimer ring
- **Form:** Solid wax, flakes, or emulsified dispersion

Key feature: **chemically bonds to cellulose fibers**, not just surface coating.

---

#### Major commercial uses

##### 1. Paper and paperboard sizing (dominant use)

###### Applications

- Printing and writing paper
- Packaging board
- Corrugated medium
- Food packaging paper

###### Function

- Imparts **water resistance (internal sizing)**
- Improves printability
- Controls ink penetration

###### Why AKD is used

- More durable than rosin sizing
- Works in **neutral/alkaline systems**
- Improves paper strength and longevity

This accounts for **~90%+ of global AKD consumption**

---

##### 2. Paper coatings and surface sizing

Used in:

- Coated papers
- Specialty paper finishes

Provides:

- Additional water repellency
  - Surface smoothness
  - Reduced porosity
- 

##### 3. Textile treatment (limited but relevant)

###### Applications

- Fabric water-repellent treatments
- Fiber finishing

Function:

- Adds hydrophobicity to cellulose-based textiles
- 

##### 4. Fiberboard and molded pulp products

Used in:

- Disposable packaging
- Molded fiber trays
- Industrial fiber products

Purpose:

- Improve moisture resistance
  - Maintain structural integrity in humid conditions
- 

##### 5. Specialty coatings and emulsions

Occasionally used in:

- Water-repellent coatings
- Emulsion systems
- Additives in construction materials



# 丰益表面活性材料（连云港）有限公司

Wilmar Surfactant Material (Lianyungang) Co., Ltd

27290

2-5-19

42999 1/2  
JL

## 产品质量检验报告 CERTIFICATE OF ANALYSIS

PRODUCT NAME: Alkyl Ketene Dimer 烷基烯醇二聚体

PRODUCT CODE: AKD-1865

LOT: F8KN09K151

QUANTITY: 39 bags 19800 kg

MANUFACTURE DATE: 2018-12-09

SHELF LIFE: 6 months 6个月

REPORT No.: 2018-A1196

ANALYSIS DATE: 2018-12-20

Standard执行标准: GB/T 27565

YHKO-PG-IV-004-01 (01)

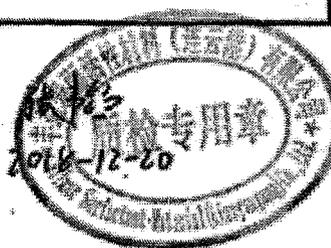
项目 [Item]	指标 [SPEC.]	结果 [Result]	单项判定 [Individual Judgment]	分析方法 [Test Methods]
Product Form 产品形态	Bead 珠状	Conform 符合要求	PASS	GB/T 27565
Appearance 外观	Slight Yellow/Yellow 微黄色/黄色	Conform 符合要求	PASS	GB/T 27565
AKD Content 含量 (%)	88.0 min	88.6	PASS	GB/T 27565
Acid Value 酸值 (mgKOH/g)	5.0 max	0.2	PASS	GB/T 27565
Melting Point 熔点 (°C)	50.0 min	51.1	PASS	GB/T 27565
iodine Value 碘值 (gI <sub>2</sub> /100g)	44.0 min	45.7	PASS	GB/T 27565
Packing 包装	500kg net PE Jumbo Bag 净重500kg 吨袋包装	Conform 符合要求	PASS	VISUAL 目测
Remark 备注	Our AKD (Alkyl Ketene Dimer) Production plant uses toluene-free process to produce AKD products. Therefore, there is no toluene residue in our AKD products 我公司生产的AKD系列产品中无甲苯残留  CNTR.NO:MOFU5863079			
Conclusion 结论	PASS			

Analysis by 分析 祝乾强

Checked by 审核:

Date: 2018-12-20

Date:



## MATERIAL SAFETY DATA SHEET

### 1. Chemical Product and Company Identification

- a. Product name: **ALKYL KETENE DIMER**  
b. Recommended use of the chemical and restrictions on use: Chemical intermediate  
c. Manufacturing Site: - **Wilmar Surfactant Material (Lianyungang) Co., Ltd.**  
No.16, Xianghe Road, Banqiao Industries Park, Lianyungang  
Jiangsu Province, China 222066  
Emergency contact: Liu Juan  
Tel: +86 518 81196525  
Email: liujuan@cn.wilmar-intl.com

### 2. Hazards Identification

- a. Hazard classification: Product is not dangerous cargo  
b. Label elements including precautionary statements  
● Pictograms: Not available  
● Signal words: Not available  
● Hazard statements: Not available  
● Precautionary statements: Not available  
c. Other hazards which do not result in classification (e.g. dust explosion hazard):  
Not available

### 3. Composition/Information on Ingredients

Product Description: Alkyl Ketene Dimer  
Product Code: AKD-1840/1865/1895  
Formula:  $C_{32}H_{58}O_2$   $C_{34}H_{62}O_2$   $C_{36}H_{66}O_2$

Chemical name	Common name	CAS No	EINECS No
2-Oxetanone, 3-C12-16-alkyl-4-C13-17-alkylidene derivs	Alkyl Ketene Dimer	84989-41-3	284-932-5

### 4. First-aid Measures

- a. Eye contact  
Wear goggles. Wash eyes with plenty of water, obtain medical help if necessary.  
b. Skin contact  
Use hand gloves. Flush skin with water or shower, and obtain medical help if necessary.  
c. Ingestion  
Rinse mouth with water, obtain medical help if necessary.  
d. Inhalation  
Remove to fresh air. Obtain medical help if necessary.  
e. Most important acute and delayed symptoms/effects: Not available  
f. First aid and notes for physicians: Not available

### 5. Fire Fighting Measures

- a. Suitable (and unsuitable) extinguishing media  
Use dry powder, water mist, foam, carbon dioxide for extinguishing.  
b. Specific hazards arising from the chemical (e.g. hazardous combustion products)

- Irritating and highly toxic gases may be generated by thermal decomposition or combustion, such as carbon monoxide, carbon dioxide, carboxylic acid and aldehyde.
- c. Special protective equipment and precautions for fire-fighters  
Wear a self-containing breathing apparatus and full protective gear.

## 6. Accidental Release Measures

- a. Measures required for personal protection and protective equipment  
Use rubber gloves, air respirator, goggles, safety shoes and lab coat. Remove contaminated clothing and wash hands between breaks and at end of duty hours.
- b. Measures required for environment protection: Not available
- c. Clean-up and removal method  
Remove sources of ignition, ventilate area and collect leakage in sealable containers.

## 7. Handling and Storage

- a. Precautions for safe handling  
Use leak-proof and sealed bags. Store on pallets in well ventilated dry locations at ambient temperature away from direct sunlight.
- b. Conditions for safe storage (including incompatibilities)  
Keep in a cool and dry place, avoid extreme heat and cold. Avoid direct fire, strong alkalis, strong oxidizers and water.

## 8. Exposure Controls and Personal Protective Equipment

- a. Exposure limits of the chemical substance, biological exposure limits and etc.  
None established.
- b. Appropriate engineering controls  
Use normal precautionary measures for handling chemicals.
- c. Personal protective equipment
- Protection of respiratory system: Wear air respirator
  - Eye protection: Wear goggles
  - Hand protection: Wear protective gloves
  - Body protection: Wear protective clothing, safety shoes

## 9. Physical and Chemical Properties

- |   |                     |
|---|---------------------|
| a. Appearance (physical state, color, etc.):  | Waxy solid (20 °C)  |
| b. Odor:                                      | slightly            |
| c. Odor threshold:                            | Not available       |
| d. pH:  | Acidic character    |
| e. Melting point/freezing point:              | ≥47 °C              |
| f. Initial boiling point and boiling range:   | Not available       |
| g. Flash point:                               | Not available       |
| h. Evaporation rate:                          | Not available       |
| i. Flammability (solid, gas):                 | Not available       |
| j. Upper/lower flammable or explosive limits: | Not available       |
| k. Vapor pressure:                            | 7 mmHg (20 °C)      |
| l. Solubility:                                | in organic solvents |
| m. Vapor density:                             | Not available       |
| n. Specific gravity:                          | 0.95(Water = 1)     |
| o. Partition coefficient : n-octanol/water    | Not available       |

p. Auto-ignition temperature:	Not available
q. Decomposition temperature:	Not available
r. Viscosity:	Not available
s. Molecular weight:	495.6~532.9
t. Colour:	Slight yellow/Yellow
u. Density:	Not available
v. Bulk density (20 °C):	Not available
w. Volatile Fraction by Weight:	Not available
x. Softening Point:	Not available

## 10. Stability and Reactivity

- Chemical stability: Stable at room temperature in closed containers under normal storage and handling conditions.
- Possibility of hazardous reactions: Not available
- Conditions to avoid (e.g. static discharge, shock, vibration, etc.): Incompatible materials
- Incompatible materials: Oxidizing agents.
- Hazardous decomposition products  
Not available

## 11. Toxicological Information

- Information on the likely routes of exposure
  - (Respiratory system): Not available
  - (Oral): LD50 > 5 g / kg (rat)
  - (Eye, skin): Not available
- Delayed and immediate effects and chronic effects from short or long term exposure
  - Acute toxicity (All routes of possible exposure shall be mentioned.): Not available
  - Skin corrosion/irritation: Not available
  - Serious eye damage/eye irritation: Not available
  - Respiratory sensitization: Not available
  - Skin sensitization: Not available
  - Carcinogenicity: Not available
  - Germ cell mutagenicity: Not available
  - Reproductive toxicity: Not available
  - Specific target organ toxicity (single exposure): Not available
  - Specific target organ toxicity (repeated exposure): Not available
  - Aspiration hazard: Not available
- Numerical measures of toxicity (acute toxicity estimation (ATE), etc.): Not available

## 12. Effects on the Environment

- Aquatic and terrestrial ecotoxicity: Product should not get into water bodies without treatment.
- Persistence and degradability: Not readily biodegradable
- Bioaccumulation: Not available
- Mobility in soil: Not available
- Other adverse effects: Not available
- Acute fish toxicity: Not available
- Chronic bacteria toxicity: Not available

## 13. Disposal Considerations

- a. Disposal methods: In accordance with local and national regulations
- b. Precautions for disposal (including the disposal method of contaminated containers and packages)  
Product and packaging should be disposed off in accordance with the local, state and federal regulations.

#### 14. Transport Information

- a. UN number: Not available
- b. UN proper shipping name: Not available
- c. Transport hazard classes: Not available
- d. Packing group, if applicable: Not available
- e. Marine pollutant (yes/no): No
- f. Information on any special precautions, which a user needs to be aware of, or needs to comply with in connection with transport: Not available

#### 15. Regulatory Information

- a. Industrial Safety and Health Law: Not available
- b. Toxic Chemical Control Law: Not available
- c. Dangerous Substance Safety Management Law: Not available
- d. Wastes Management Law: Not available
- e. Other regulations in domestic and foreign countries  
Observe prescribed Federal, State and Local measures for dealing with chemicals listed on EINECS (EU), TSCA-CSI (USA), DSL (Canada), AICS (Australia), ENCS (Japan), ECL (Korea), PICCS (the Philippines) and IECSC (China).

#### 16. Other Information

- a. Sources of reference materials: Not available
- b. The first date of preparation: 2016-01-01
- c. Number of revision times and the latest revision date:  
1 version time and the latest revision date: 2017-08-22
- d. Others  
This information presented here is believed to be accurate and pertains only to the product when stored in a sealed condition.  
The MSDS was updated in accordance to Globally Harmonised System (GHS) guidelines.  
As prescribed above. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product. Manufacturers shall in no way be liable for any claims, losses and damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of this product.