

**Appearance** The product is homogeneous free flowing powder without conglutination, caking and deliquescence.

**Color** It is homogeneous white or light yellow powder.

**Solubility** It can be evenly dispersed in water at 25°C-45°C.

**Impurities** No visible foreign material.

Chemical Analysis	Unit	Specification
Arachidonic Acid Content	Tag Wt.%	≥10.0
Surface oil	%	≤1.0
Peroxide value	Meq/kg	≤5.0
Moisture	%	≤5.0
Ash	%	≤5.0

Elemental Analysis	Unit	Specification
Arsenic	mg/kg	≤0.2
Lead	mg/kg	≤0.2
Mercury	mg/kg	≤0.05

Microbiological Analysis	Unit	Specification
Total colony count	cfu/g	≤1000
Coliform	cfu/g	<10
Mould	cfu/g	≤25
Yeast	cfu/g	≤25
Enterobacter Sakazakii	/333g	Negative
Staphylococcus Aureus	/25g	Negative
Shigella	/25g	Negative
Salmonella	/25g	Negative
Streptococcus Hemolyticus	/25g	Negative

### Storage and Stability

**Storage** The product should be stored in a tightly closed original packaging under a cool and dry condition. It should be quickly consumed after its first opening.

**Stability** The shelf life of the product is 24 months at a temperature of 0°C-10°C.

### Packaging

The product is packed in an aluminum foil bag of 5kg blanketed with nitrogen. Bags are packed in carton **boxes**.

CABIO



## CABIO Biotech (Wuhan) Co., Ltd

Add: Wuhan Pharmacy park, Jiangxia Avenue,  
Jiangxia Economic Development Zone, Wuhan, China

Tel: 086-27-81309931 67845325 67845351

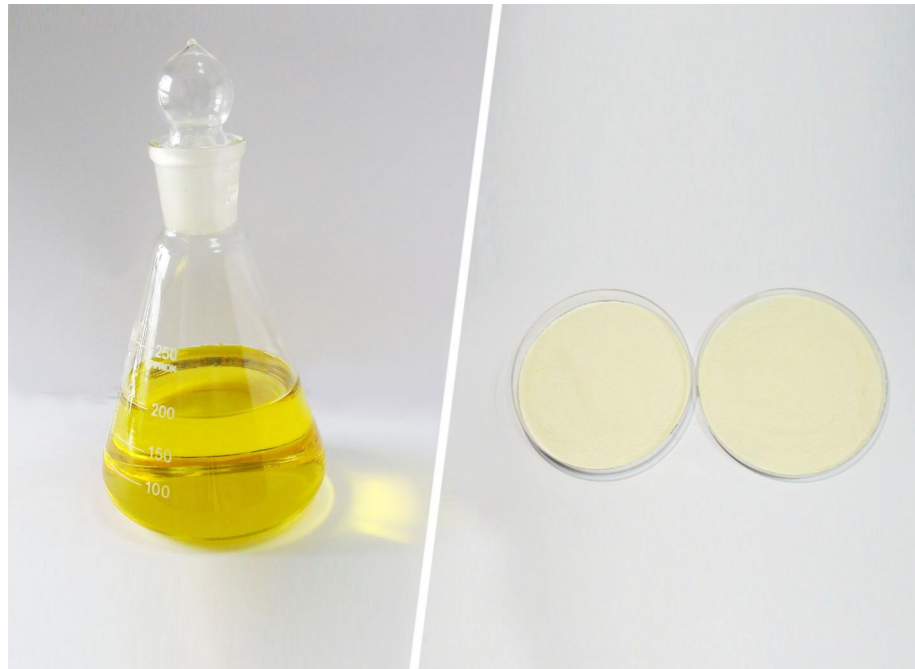
Fax: 086-27-67845375

E-mail: [Customerservice@cabio.cn](mailto:Customerservice@cabio.cn)

Website: [www.lipidsnutrition.com](http://www.lipidsnutrition.com)



## Arachidonic Acid (ARA)



# CABIO ARA

—international standard, industrial pioneer

CABIO ARA is a kind of microbial oil produced by fermentation process, which was first approved as a Novel Food by EU and GRAS by USA FDA among Chinese products of the same type. It has been approved and used by several of top infant formula manufacturers all over the world.

CABIO ARA is mainly used in formula food for infants and children, liquid milk, yoghurt and dietary supplements. It is also applied in food which has a certain health function such as blended cooking oil, confection and chocolate, baked food and so forth. ARA products can be applied in various kinds of production processes. They are featured by outstanding biological stability and delighted flavor and smell, so they will bring reliable shelf-life and flavor to your applied products.

It's worth to note that formula for special requirements such as whole milk, dairy - free, organic, sugarless and others are available as powder additives.

## CABIO ARA products include:

ARA oil 40-45%

ARA Powder 10-15%

### Product function

For the human body:

1. ARA supports brain development of infants and children and the formation of retina;
2. ARA is beneficial for the growth and the memory of infants and children;
3. ARA can regulate blood lipid and blood glucose, which makes it effective for preventing cardiovascular diseases;
4. ARA can be involved in tumor inhibition and cancer prevention.

For the animals:

1. Improves skin health of the canine and feline animals, making their fur smooth;
2. Increases the ARA content in meat products, egg products and dairy products during the growth of the livestock;
3. Promotes the health of the livestock and reduce embryo mortality rate;
4. Improves the visual acuity and learning ability of the pet.

## ARA Oil (40%)

### General

Vegetable oil from fungi (*Mortierella alpina* I49-N18) with rich arachidonic acid (ARA).

### Ingredients

Arachidonic acid oil from *Mortierella alpina*, Sunflower seed oil, Vitamin E (dl- $\alpha$ -Tocopherol), Ascorbyl palmitate.

### Physical Attributes

Appearance	A clear yellow liquid at 40°C, homogeneous and free from foreign impurities.	
Odor	Characteristic and free from rancidity.	
Color	Lovibond Cell, 25.4mm, not more than: Y20 R5.	

Chemical Analysis	Unit	Specification
Arachidonic acid (C20:4)	Tag Wt. %	$\geq 40.0$
Peroxide value	Meq/kg	$\leq 2.0$
Acid value	mg KOH/g	$\leq 1.0$
Moisture	%	$\leq 0.1$

Elemental Analysis	Unit	Specification
Arsenic	mg/kg	$\leq 0.1$
Lead	mg/kg	$\leq 0.1$
Mercury	mg/kg	$\leq 0.05$
Cadmium	mg/kg	$\leq 0.1$

Other Fatty Acid Profile	Unit	Typical Results
Myristic acid (C14:0)	Area%	0.1-0.5
Palmitic acid (C16:0)	Area%	4.3-8.1
Hexadecenoic acid (C16:1)	Area%	0-0.4
Stearic acid (C18:0)	Area%	4.2-7.6
Oleic acid (C18:1)	Area%	3.4-9.5
Linoleic acid (C18:2)	Area%	3.8-15.2
Gamma linolenic acid (C18:3)	Area%	1.7-2.7
Arachidic acid (C20:0)	Area%	0.6-1.0
Homogamma linolenic acid (C20:3)	Area%	3.0-5.0
Docosanoic acid (C22:0)	Area%	2.5-4.1
Tetracosenoic acid (C24:0)	Area%	7.8-12.6

### Storage and Stability

The product should be stored in a tightly closed original packaging under cool and dry conditions. It should be quickly consumed after the date of first opening. The product can remain stable for 24 months if it is stored at a freezing temperature (-18°C- 13°C) in the original package.

### Packaging

The product is packed in a vacuumized aluminum foil bag of 1 or 5kg, or in nitrogen filled high-barrier composite plastic bottle of 5kg. Bags or plastic bottle are packed in carton boxes.

## ARA Powder (10%)

### General

Free flowing powder containing arachidonic acid (ARA) oil from fungi (*Mortierella alpina*)

### Ingredients

Lactose (milk source), Arachidonic Acid Oil (which contains Sunflower seed oil, Vitamine E (dl- $\alpha$ -Tocopherol) and Ascorbyl palmitate), Corn syrup solids, Sodium Ascorbate, Sodium Caseinate (milk source) and Sodium Citrate.

### Physical Attributes

Taste and odor	The powder has the arachidonic acid characteristic odor and taste. No foreign taste, no foreign odor, no putrid and mildew phenomenon.
----------------	--