

CERTIFICATE OF ANALYSIS

Name : Vitamin A Acetate Powder

Batch No. : 4522607

Best Before End : October 2026

	ITEM	SPECIFICATION	RESULT
1.	Appearance	Pale yellow to yellow flowing powder	Complies
2.	Loss on drying	<5.0%	3.82%
3.	Vitamin A Acetate Content	;>325,000IU/g	343,600IU/g
4.	Solubility	Easily dispersed in cold water 15°C to form a homogeneous and stable emulsion	Complies
5.	Granularity: go through the sieve of 60 mesh	;>90.0%	98.6%
6.	Heavy Metal	< 10ppm	Complies
7.	Lead	<2ppm	<1ppm
8.	Arsenic	<1ppm	<1ppm
9.	Mercury	< 0.1ppm	<0.1 ppm
10.	Cadmium	<1ppm	<1ppm
11.	Microbial Limit Test		
(1)	Total Plate Count	< 1000cfu/g	<10 cfu/g
(2)	Yeast & Mold	<100cfu/g	<10cfu/g
(3)	Coliforms	<0.3MPN/g	<0.3MPN/g
(4)	E Coli	Negative/10g	Negative
(5)	Salmonella	Negative/25g	Negative
(6)	S. Aureus	Negative/25g	Negative

Conclusion: Conform to USP41.

Storage: Store in the original container, protected from light, in a dry, cool (8-15'C) place.



COMPOSITION SHEET

VITAMIN A ACETATE POWDER 325,000 IU/G FOOD GRADE CWD

Revision date: 2019/01/02

Name of the Product: Vitamin A Acetate Powder 325,000IU/g Food Grade

Product composition list as below:

ITEMS	ASSAY	SOURCE	
Vitamin A Acetate Crystal	13%	Synthetic	
2. Corn Oil	2~10%	Corn	
3. Tocopherol	0.5~2%	Soybean	
4. Arabic Gum	30~40%	Arabic resin	
5. Sucrose	5~15%	Sugarcane	
6. Maltodextrin	30~40%	Corn	
7. Sodium Ascorbate	0.5~1%	Synthetic	
8. Silicon Dioxide	0~1%	Chemical Reaction	

We confirm this is a exact replica of documentation received from the manufacturer.



ALLERGEN INFORMATION Revision date: 2022/01/04 PRODUCT: Present **Absent** Comments **Vitamin A Acetate Powder CWD Food Grade** Type of Allergen Regulation (EU) No 1169/2011, ANNEX II Cereals containing gluten, namely: wheat, rye, barley, oats, $\overline{\mathbf{Q}}$ spelt, kamut or their hybridised strains, and products thereof $\overline{\mathbf{A}}$ Crustaceans and products thereof $\overline{\mathbf{A}}$ Eggs and products thereof 3. 4. Fish and products thereof $\sqrt{}$ 5. Peanuts and products thereof $\sqrt{}$ Soybeans and products thereof (except: natural mixed tocopherols (E306), natural D-alpha tocopherol, $\sqrt{}$ natural D-alpha tocopherol acetate, and natural D-alpha tocopherol succinate from soybean sources) Milk and products thereof (including lactose) \checkmark Nuts, namely: almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cashews (Anacardium occidentale), pecan nuts (Carya illinoinensis \checkmark (Wangenh.) K. Koch), Brazil nuts (Bertholletia excelsa), pistachio nuts (Pistacia vera), macadamia or Queensland nuts (Macadamia ternifolia), and products thereof $\overline{\mathbf{A}}$ Celery and products thereof 10. Mustard and products thereof \checkmark $\overline{\mathbf{V}}$ 11. Sesame seeds and products thereof 12. Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre in terms of the total SO₂ which are to be calculated for products as proposed ready for consumption $\sqrt{}$ or as reconstituted according to the instructions of the manufacturers 13. Lupin and products thereof \checkmark 14. Molluscs and products thereof $\sqrt{}$ Type of Allergen FSIS Compliance Guidelines, Appendix 6 Wheat $\sqrt{}$ 1. 2. Crustacean Shellfish $\sqrt{}$ $\overline{\mathbf{A}}$ 3. Eggs 4. $\overline{\mathbf{Q}}$ Fish 5. Peanuts \checkmark $\sqrt{}$ 6. Milk

7.

Tree Nuts

Soybeans

 $\overline{\mathbf{V}}$

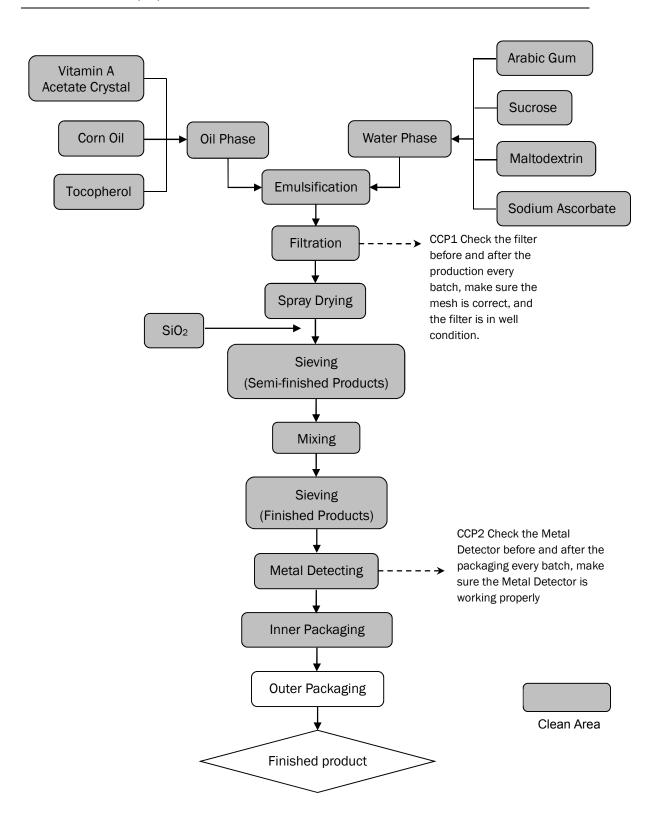
 $\overline{\mathbf{A}}$



FLOW CHART

VITAMIN A ACETATE POWDER 325,000IU/G FOOD GRADE CWD

Revision date: 2022/01/02





NON-GMO DECLARATION

Date: February 16, 2022

To whom it may concern,

We hereby advise that our product <u>Vitamin A Acetate</u> <u>Powder Food Grade CWD</u> is NON-GMO.



Section 1: Chemical Product and Company Identification

Contact information
MADAR Corporation Limited
19-20 Sandleheath Industrial Estate
Fordingbridge
Hampshire
SP6 1PA

01425 653574

Approved sellers: Mystic Moments, New Directions, World of Moulds

Product Name: Vitamin A Acetate Chemical family: Not Applicable Chemical name: Not Applicable

Section 2: Composition and Information on Ingredients

Vitamin A Acetate 325000IU/g

CAS: 127-47-9 Assay: min 99%

Section 3: Hazards Identification

Classification of the substance or mixture Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to directive 67/548/EEC. Other hazards – none

Section 4: First Aid Measures

Description of first aid measures

If inhaled If breathed in, move person into fresh air. If no breathing, give artificial respiration

In case of contact with skin Wash off with soap and plenty of water

In case of eye contact Flush eyes with water as a precaution

If swallowed Never give anything by mouth to an unconscious person.

Rinse mouth with water

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 5: Fire and Explosion Data

Extinguishing Media
Suitable Extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special Hazards arising from the substance or mixture
Carbon oxides

Advice for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

Section 6: Accidental Release Measures

Personal Protections, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas

Environmental Precautions

Do not let product enter the drains

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling:

Normal measures for preventative fire protection.

Condition for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage

temperature: Normal warehouse temperature

Section 8: Exposure Controls/Personal Protection Engineering Controls:

Control Parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values

Exposure Controls

Appropriate engineering controls

General industrial hygienic practice

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US)

or EN 166(EU). Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin

contact.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount

of the dangerous substance at the specific workplace

Respiratory Protection

Respiratory protection not required

Section 9: Physical and Chemical Properties Physical state and appearance: Solid. (Solid powder)

Physical state and appearance: Solid. (Powdered solid.)

Odor: a little

Taste: Not available.

Molecular Weight: Not available. Colour: Off White to light vellow pH (1% soln/water): Not available Boiling Point: Not available. Melting Point: 73-78°C

Critical Temperature: Not available. Specific Gravity: Not available. Vapor Pressure: Not applicable. Vapor Density: Not available Volatility: Not available. Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available. Ionicity (in Water): Not available. Dispersion Properties: Not available.

Solubility: insoluble water

Section 10: Stability and Reactivity Data

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

Air Light

Incompatible materials

Strong oxidising agents

Hazardous decomposition products

Other decomposition products – no data available.

Section 11: Toxicological Information Acute inhalation: Not available

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity

Reproductive toxicity – rat – Oral

Effects on fertility: other measures of fertility Specific target organ toxicity – single exposure

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation May cause respiratory tract irritation

Ingestion May be harmful if swallowed

Skin May cause skin irritation

Eyes May cause eye irritation

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity 5 No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Results of PBT and vPvB assessment No data available

Other adverse effects No data available

RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidelines for the classification determination are listed in 40 CFR Part

Additionally, waste generators must consult state and local hazardous waste regulations.

Ensure complete and accurate classification.

RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14: Transport Information

UN Number

ADR/RID:- IMDG:- IATA:-UN Proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods Transport hazard class(es) ADR/RID: - IMDG:- IATA:-Packaging group

ADR/RID:- IMDG:- IATA:-**Environmental hazards**

ADR/RID: No IMDG Marine Pollutant: No IATA: No

Section 15: Other Regulatory Information

This datasheet complies with the requirements of Regulation (EC) No. 1907/2006 Safety, health and environmental regulations/legislation specific for the substance or mixture No data available **Chemical Safety Assessment** No data available

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall MADAR Corporation be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if MADAR Corporation has been advised of the possibility of such damages. party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Herbsino.com has been advised of the possibility of such damages.



according to Regulation (EU) No 453/2010

VITAMIN A ACETATE POWDER 325,000 IU/G FOOD GRADE CWD

Revision Date: 04.01.2022

Section 1: Product and Company Identification

1.1. Product identifier

Vitamin A Acetate Powder 325,000IU/g Food Grade CWD

1.2. Relevant identified uses of the product

for exclusive usage in food additive

1.3. Details of the supplier of the safety data sheet

Company Madar Corporation Limited

Information: 19 - 20 Sandleheath Industrial Estate

Fordingbridge SP6 1PA 01425 655 555

technical@madarcorporation.co.uk

1.4. Emergency telephone number:

Tel: 01425 655 555

Section 2: Hazard Identification

2.1. Classification of the substance or mixture Classification according to Directive 2006/121/EC or 1999/45/EC

Indications of danger: T - Toxic, Xi - Irritant

R phrases:

May cause harm to the unborn child.

Irritating to skin.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2 Reproductive toxicity: Repr. 1B

Hazardous to the aquatic environment: Aquatic

Chronic 4

Hazard Statements: Causes skin irritation.

May damager the unborn child.

May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Hazardous components which must be listed on the label

Vitamin A Acetate

Signal word: Pictograms: Danger GHS07-GHS08





Hazard statements

H315 Causes skin irritation
H360D May damage the unborn child

H413 May cause long lasting harmful

effects to aquatic life

Precautionary statements

P201 Obtain special instructions before

use.

P280 Wear suitable gloves and eye/face

protection.

P302+P352 IF ON SKIN: Wash with plenty of

water.

P308+P313 IF exposed or concerned: Get

medical advice/attention.

P501 Dispose of this material and its

container to hazardous or special

waste collection point.

Section 3: Composition and Information on

Ingredients

3.2. Mixtures Composition

Name	Content	CAS No.
Vitamin A Acetate	About 13.0%	127-47-9
Crystal		
Corn Oil	About 3.0%	8001-30-7
Tocopherol	About 1.0%	59-02-9
Arabic Gum	About 33.0%	97659-43-3
Sucrose	About 15.0%	57-50-1
Maltodextrin	About 33.5%	9050-36-6
Sodium Ascorbate	About 0.5%	134-03-2
Silicon Dioxide	About 1.0%	7631-86-9

Hazardous components

Chemical name	Vitamin A Acetate (Retinol
	Acetate)
CAS No	127-47-9
EC No	204-844-2
Classification	Repr. Cat. 1,
according to Directive	Xi - Irritant R61-38
2006/121/EC	
Classification	Repr. 1B, H360D;
according to	Aquatic Chronic 4, H413;
Regulation (EC) No.	Skin Irrit. 2, H315
1272/2008 [CLP]	
Quantity	10-<30%

Section 4: First Aid Measures

according to Regulation (EU) No 453/2010

VITAMIN A ACETATE POWDER 325,000 IU/G FOOD GRADE CWD

Revision Date: 04.01.2022

4.1. Description of first aid measures General advice

Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

If inhaled

Keep patient calm, remove to fresh air, get medical attention.

On skin contact

Immediately wash thoroughly with soap and water.

On contact with eyes

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion

Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention.

Section 5: Firefighting measures

5.1. Fire Fighting Media and Instructions

Water spray. Foam. Extinguishing powder. Carbon dioxide (CO₂). Sand

5.2. Special hazards arising from the substance or

Dust explosive. In case of fire and/or explosion do not breathe fumes.

Slightly flammable to flammable in presence of open flames and sparks, of heat.

Non-flammable in presence of shocks.

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Flammability of the product

Non-flammable, but may be combustible at high temperature.

Auto-ignition temperature

Not Available

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Avoid dust formation.

Use personal protective equipment.

6.2. Environmental precautions

Do not discharge into the drains or bodies of water. Do not discharge into surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3. Methods for cleaning up or taking up

Avoid raising dust.

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Large Spill: Use a shovel to put the material into a convenient waste disposal container.

Section 7: Handling and Storage

7.1. Precautions for safe handling

Avoid dust formation. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2. Conditions for safe storage, including any incompatibilities

Store in light-resistant containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 39°C. Preferably store between 8 to 15 °C

Temperature tolerance

Protect from temperatures above: 60 °C

Damage by exceeding the maximum temperature is not reversible.

Section 8: Exposure Controls / Personal

Protection

8.2. Exposure controls

Respiratory protection

Breathing protection if breathable aerosols/dust are formed. Particle filter Type P2 or FFP2 (medium efficiency for solid and liquid particles e.g. EN143, 149)

Hand protection

Suitable chemical resistant safety gloves (EN 374)

according to Regulation (EU) No 453/2010

VITAMIN A ACETATE POWDER 325,000 IU/G FOOD GRADE CWD

Revision Date: 04.01.2022

Eye protection

Safety glasses with side-shields (frame goggles) (EN 166)

Skin protection

Protective clothing

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Remove soiled or soaked clothing immediately.

Keep divorced from food and feed.

Wash hands and skin before breaks and after work.

Exposure Limits

Not available.

Section 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical

properties

Physical state Fine powder

Color Pale yellow to yellow Odor mild, pleasant **Molecular Weight** 328.49g/mole **Bulk density** approx. 0.6 g/ml

Easily dispersed in cold water 15°C to form a

Solubility homogeneous and stable

emulsion

Melting Point 63°C (145.4°F)

Section 10: Stability and Reactivity Date

10.2. Chemical stability

The product is stable. When exposed to light and heat, potency will deteriorate.

10.3 Possibility of Hazardous Reactions

Dust explosion hazard.

10.4. Conditions to avoid

Moisture, direct sunlight, heat, conditions that might generate heat.

10.5. Incompatible materials

Strong oxidizing agents. Acid, concentrated. Alkalis (alkalis), concentrated.

10.6. Hazardous Decomposition Products

No hazardous decomposition products if stored and handled as prescribed/indicated.

Section 11: Toxicological Information

11.1. Information on toxicological effects

Routes of entry

Inhalation, ingestion.

Toxicity to Animals

Acute oral toxicity (LD₅₀): >5000mg/kg [Mouse].

Chronic Effects on Humans

Not available.

Teratogenic Effects

Possible risk of harm to the unborn child.

Special Remarks on other Toxic Effects on Humans

Acute Potential Health Effects:

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed in large amounts. May cause irritation of the digestive tract. May affect the liver, blood behavior, respiration, sense organs, metabolism, urinary system.

Inhalation: May cause respiratory tract irritation.

Mutagenic Effects

Not mutagenic.

Section 12: Ecological Information

12.1. Toxicity

Not available.

12.2. Persistence and degradability

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

The product itself and its products of degradation are not toxic.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available.

12.6. Other adverse effects

WGK Germany: 2

Section 13: Disposal Considerations

13.1. Waste treatment methods

Waste must be disposed of in accordance with national and local environmental control regulations.

Recommendations for the product

Dispose of as hazardous waste.

Recommendations for packaging

Packaging that cannot be cleaned should be disposed of like the product.

Section 14: Transport Information

according to Regulation (EU) No 453/2010

VITAMIN A ACETATE POWDER 325,000 IU/G FOOD GRADE CWD

Revision Date: 04.01.2022

DOT classification

Not a DOT controlled material (United States). Land and inland navigation transport (ADR/RID/GGVS/GGVE/ADNR). No hazardous material as defined by the transport regulations.

IATA Classification

They are considered to be non-dangerous by the *63th* IATA Dangerous Goods Regulations and it is not restricted as per SPECIAL PROVISION A3

Suggestion according to IMO IMDG Code

The substance is not subject to IMO IMDG Code.

Section 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EINECS

This product is on the European Inventory of Existing Commercial Chemical Substances.

Protective equipment

Gloves, lab coat, dust respirator, be sure to use an approved/certified respirator or equivalent, safety glasses.

Section 16: Other Information

References

Not available.

Other Special Considerations

Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



PRODUCT NAME Vitamin A A		cetate Powder 325,000IU/g Food Grade CWD	TYPE	Food Grade	
Conform to USP/EP		Revision date: 2022/01/02			
ПЕМ		SPECIFICATION	TES	ST METHOD	
1. Appearance		Pale yellow to yellow free flowing powder		Visual	
2. Loss on drying		≤5.0%	U	SP <731>	
3. Vitamin A Acetate Cor	itent	≥325,000IU/g	ŀ	HPLC (EP)	
4. Water Dispersibility		Easily dispersed in cold water 15°C to form a homogeneous and stable emulsion	1g/:	100ml water	
Granularity: go throug of 60 mesh	h the sieve	≥90.0%	U	SP <786>	
6. Heavy Metal		≤10ppm	USP <231>		
7. Lead		≤2ppm	AAS		
8. Arsenic		≤1ppm	AFS		
9. Mercury		≤0.1ppm	AFS		
10. Cadmium		≤1ppm		AAS	
11. Microbial Limit Test					
(1) Total Plate Count		≤1000cfu/g	US	SP <2021>	
(2) Yeast & Mold		≤100cfu/g	US	SP <2021>	
(3) Coliforms		≤0.3MPN/g	US	SP <2022>	
(4) E. Coli		Negative/10g	US	SP <2022>	
(5) Salmonella		Negative/25g	USP <2022>		
(6) S.aureus		Negative/25g USP <		SP <2022>	

SHELF LIFE (UNOPENED)	24 months				MANUFACTURING PROCESS
STORAGE	Store in the original container, protected from light, in a dry, cool (8-15 °C) place. Once it opened, please use it up in a short time.				Oil phase + Water phase
NUTRITIONAL INFORMATION	(PER 1000	G OF RAW	MATERIAL)		↓ Emulsification
ITEM		UNIT VALUE		NRV%	↓
1. Energy		KJ 1129		13%	Spray-drying
2. Protein		g	0	0	↓
3. Total Fat		g	3	5%	Sieving
4. Carbohydrates		g	73.7	25%	N
5. Sodium		mg 446 22%		Mixing	
PACKAGING	5kg	5kg Outer: Carton (4bags/carton) Inner: Vacuumed aluminum foil bags (5kg/bag)			Vitamin A Acetate Powder
PACKAGING	Outer: Carton (1bags/carton) Inner: Vacuumed aluminum foil bags (20kg/bag)			Packaging ↓ <u>Product</u>	
ITEM	ASSAY		SOURCE	ORIGIN	
1. Vitamin A Acetate Crysta	1. Vitamin A Acetate Crystal 13%		Synthetic		
2. Corn Oil	2~10%		Corn		
3. Tocopherol	0.5~2%	6	Soybean		
4. Arabic Gum	30~40	%	Acacia Senegal	China	
5. Sucrose	5~15%	l	Sugarcane		
6. Maltodextrin	30~40	%	Corn		
7. Sodium Ascorbate	0.5~1%	6	Synthetic		
8. Silicon Dioxide	0~1%	Chemical Reaction			



VEGAN STATEMENT

Date: January 20, 2022

To whom it may concern,

We hereby advise that our product <u>Vitamin A Acetate</u> <u>Powder Food Grade</u>

<u>CWD</u> is suitable for vegans.