# Information on Safe Agricultural Materials

The agricultural materials on this page are soil conditioners and plant vitalizing agents for organic plants. They are certified by ACCIS (Hokkaido Organic Certification Center).

# Sosaku Enzyme: (for 1:10,000 dilution use), Price ¥21,600/bottle (1L)

Sosaku Enzyme is a safe agricultural material made from our dietary supplements Takaramizu and Apple Enzyme ZII. It helps plants to develop strong cell walls and stimulates healthy growth of plants by neutralizing phosphoric acid and nurturing microorganisms to help their aggregate formation.

## Sosaku Enzyme V: (for 1:10,000 dilution use), Price ¥24,840/bottle (1L)

Sosaku Enzyme V is a safe agricultural agent made from our dietary supplements Takaramizu, Apple Enzyme ZII, Super\*Takaramizu and Super\*Takaramizu V. It helps plants to develop strong cell walls and stimulates healthy growth of plants by neutralizing phosphoric acid and nurturing microorganisms to help their aggregate formation.

### NP 7 (for 1:10,000 dilution use), Price ¥16,416 /bottle (1L)

NP 7 is an insect pest repellent agent. The main ingredients are Sosaku Enzyme, heartleaf, garlic, chili peppers and neem. It stimulates healthy plants and creates a pest-free environment ideal to eco-system. NP 7 is permeable enzyme solution used at the ratio of 1:10,000 dilution. It can allow you to switch to reduced chemical cultivations so that you can reduce the costs and keep your health. This can lead to consumers' safety and assurance as well.

#### NP 7 N (for 1:10,000 dilution use), Price \(\frac{\pma}{2}\)9,440/bottle (1L) Price \(\frac{\pma}{2}\)10,800/bottle (500cc)

NP 7 is an insect pest repellent material. The main ingredients are Sosaku Enzyme, heartleaf, garlic, chili peppers and neem. It helps healthy plants and creates a pest-free environment ideal for the eco-system.

#### NP Powder 100 (used with X100 compost and farm soils), Price \(\frac{1}{21}\),600/bag (20kg)

NP 7 Powder 100 is manufactured with seaweed, neem, rice bran, charcoal, Sousaku Enzyme, NP 7. The soil amendment components remain in the soil for a long time and protect your plants. This cultured material is environmentally safe and it suppresses failure caused by continuous cropping. NP 7 Powder 100 can keep working in the soil from 6 months up to 1 year.

# NP Powder 1000 (used with X1000 compost and farm soils), Price ¥64,800/bag (20kg)

NP 7 Powder 1000 is a functional agent that is used after being cultured with compost, farm soil and leaf mold at a 1:1000 ratio. The soil amendment ingredients can stay effective in the soil from 6 months up to 1 year, and helps crops to grow healthily. It especially benefits farmers with a large farming land, and it can help you to reduce costs.

### Takaramizu D for Livestock (1:10,000 dilution Use), Price \\32,400/bottle (1L)

Takaramizu D is made of Takaramizu, Apple Enzyme ZII and C.E.P.R.I.V. It contains food enzymes, minerals, vitamins, and micronutrients. It is a plant enzyme solution that can stimulate cells of cattle and build up their immunity.

#### Effect

Stimulating cells and building up immunity will lead to keep the maintaining of healthy and young livestock.
 Takaramizu D helps farmers to raise chickens, cattle, and swine with high immunity against flus.

Please promote healthy livestock farms by taking advantage of the enzyme solution, Takaramizu D.

# Plant Enzyme Solution, **Mizuno Sosaku Enzyme 70**Agricultural Soil Conditioner

# Plant Growth Promoter, **Sosaku Enzyme**Insect Pest Controller, **NP 7**

Safe Cultivation: Plant Enzyme Solution

# Sosaku Enzyme is...

a safe agricultural material made from our dietary supplements; Takaramizu, Apple Enzyme ZII and C.E.P.R.I.V. Components such as minerals (a trace of iodine), vitamins and plant enzymes nurture microorganisms and help their aggregate formation, then improve soil conditions. This neutralizes and absorbs phosphate in the soil, and finally helps farmers to grow healthy and safe crops since absorbing phosphate enhances crops' cell density and develops strong cell walls.

# **NP 7**

Adding plant substances that are pest repellent to Sosaku Enzymes boosted its insect pest repellent effect. NP7 is a certified product for organic farming that is on the list of organic agents on ACCIS, the Hokkaido Organic Certification Center. Please consider using the eco-friendly plant enzymes on your farms.

Enriching Soils, People and Country

Manufacturer and Distributer Amano Koso Inc.

6-1 Shibazaki 1 chome, Chofu, Tokyo Tel: +81-42-480-2071 Fax +81-42-489-5668 E-mail: info@n-takaramizu.com

# Agricultural Agent: Sosaku Enzyme\*

\*Sosaku Enzyme is not a fertilizer.

**Purpose**: Freeing phosphoric acid that is bonded to metal particles in the soil makes plants absorbent. The oxygen balancing nitrogen, phosphoric acid and potassium help crops to grow healthily. In order to improve the earth ecologically, we think that greening deserts is our priority, and promoting cultivation is essential to make it come true.

**Ingredients:** Manufactured with bamboo vinegar, neem and other substances added to our dietary supplement products, Takaramizu, Apple Enzyme ZII and C.E.P.R.I.V.

Components: Minerals (calcium, magnesium, potassium and sodium), micronutrients (iron, zinc, manganese, iodine and silicon), vitamins (folic acid), and plant enzymes (enzymes are vital for living organisms to maintain their lives).

The Effect: ⊚ Improve the absorption. The electric conductivity at the ratio of 1:10,000 diluted solution: 0.265x10ms/cm<sup>-3</sup>. When water resistence is low, components move smoothly.

- Neutralize phosphoric acid and nurture microorganisms and help their aggregate formation by supplying the soil with plant enzymes. Synergetic effect brought by plant enzymes enriches the earth. Please consider using plant enzymes.
- © Using the product at the ratio of 1:10,000 dilution is recommended as the standard procedure (1:5000 diluted solution is used only when applied on earth.) Please use 1:10,000 diluted solutions for folic spray. When using a more concentrated solution than the ratio above, growth inhibition may occur.

# Instruction: The Features of Sosaku Enzyme and How to Use the Product

- 1) (Use the 1:10,000 diluted solution for both folic spraying and irrigation systems.)
- (1) Dilute the product in 5000 dilution magnification, and use it for irrigation tanks.
- (2) When adding more water to the tank, make sure the dilution ratio is 1:5000 (product:water).
- 2) The enzymes in the product nourish microorganisms.

Spray 3000L/ha of the products in 5000 dilution magnification on farm fields. (Before planting)
Spray 2000L/ha of the products in 10000 dilution magnification over crops. (especially during initial growing stage)

- 3) Crops become able to absorb phosphoric acid from their roots because the product components and microorganism neutralize the acid in the soil.
- 4) When crops have better balance of nitrogen, phosphoric acid and potassium by absorbing the phosphoric acid, they will develop stronger cell walls. This will improve taste because they can retain a higher sugar level.
- 5) When crops develop stronger cell walls, they grow healthily with more solid roots, and thicker stems and leaves. The flavorful crops help us to be in a good shape. The strong cells can also benefit you by retaining the freshness of your crops when they are transported for a long time.
- 6) Nourishing soil and plants is essential to recover the eco-system on earth.

Attention: Applying the products to vegetables is beneficial up until harvest since it is effective to retain the freshness, however, not for beans. The plants will stay green, and delay the harvest.

When you use agrochemicals, add 50% of the amount regularly used to Sosaku enzyme solution in 5000 dilution magnification, then spray it over your crops

# Insect Pest Controller, NP 7

NP7 is not an agrochemical.

NP 7 is a safe insect pest repellent material. The main ingredients are Sosaku Enzyme manufactured from our

dietary supplement products; Takaramizu, Apple Enzyme ZII and C.E.P.R.I.V., and pest repellent ingredients such as heartleaf, garlic and chili peppers. The product became even more effective to grow powerful plants by adding capsaicin, allyl sulfate and acetic acid to Sosaku enzymes. These ingredients are minerals, micronutrients, vitamins, and plant enzymes.

NP7 is environmentally safe and it protects soils and plants.

It improves plants' ability to absorb nutirents.

The enzymes in the product help plants to effectively absorb necessary nutrients from the soil as they grow. Plants slowly release the absorbed nutrients such as capsaicin, allyl sulfate and acetic acid from stoma on their leaves after digesting those nutrients through the cells.

Healthy plants grow without suffering from diseases, so they can produce healthy seeds.

# How to Use

### Spraying fields: 1:5000 dilution

When spraying NP7 on fields (Farm fields before planting), dilute the product at the ratio of 1:5000.

The enzymes in the product nourish microorganisms as they nourish other living creatures. They regulate fertilizers and augment the soil aggregation, then help plants to absorb water and breath well. Richer soils caused by nourishing microorganisms lead to healthier crops.

#### Spraying crops: 1:10000 dilution

Dilute the product at a 1:10,000 ratio. (Attention: Using concentration higher than the 1:5000 ratio may harm the growth of plants)

Initial growing period: Spray the diluted solution 3 times every 3 days (5 times for younger plants in seedbeds)

Farm field: Spray it once every 2 weeks starting from 1 week after sprouting

Greenhouse: Spray it according to the growth. Apply the product mainly for the initial stage of growth. The temperature is hot in a greenhouse. Therefore, plants grow too long with over dosing NP7.

Attention: Applying the products to vegetables is beneficial until harvest time since it is effective to retain the freshness, however, not for beans. The plants will stay green, and delay the harvest.

Please promote the growth of healthy crops!

Thank you,

Amano Koso Inc.

# NP Powder 1000

Apply NP Powder 1000 after culturing it with compost, farm soil and leaf mold at the 1:1000 ratio (NP Powder: Soils). (Attention: NP Powder is not a fertilizer or agrochemical)

N: Noxious insect P: Prevention

NP Powder 1000 is manufactured with all natural ingredients using Japanese advanced enzyme technology. Active ingredients such as enzymes remain in the soil for over 6 months and help grow healthy crops.

It is equipped with enhanced protection against pests and other harmful factors with an additional ingredient of neem which is safe to human bodies. Spreading NP Powder all over your farm field and spraying Sosaku Enzymes over your crops will create ideal environments for crops to thrive.

This material is used by culturing at the 1:1000 ratio with composts and soils. It is a product recommended for vast fields.

# Enriching Soils, People and Country

Manufacturer and Distributer Amano Koso Inc.

6-1 Shibazaki 1 chome, Chofu, Tokyo Tel: +81-42-480-2071 Fax +81-42-489-5668 E-mail: info@n-takaramizu.com

# NP Powder 1000 Enriches Soils.

Classification: Agricultural Soil Conditioner

Purpose: The components remain in the soil for over 6 months after spreading the product on fields

The enzymes in the product nourish microorganisms.

It neutralizes phosphoric acid in the soil and lets plants absorb nutrients better.

Enzymes enrich the soil and help grow healthy crops.

Ingredients: NP 7 (Takaramizu, Apple Enzyme ZII, Super & Takaramizu, neem, bamboo charcoal, charcoal, rice bran, pyroligneous acid, seaweed, etc.)

Add 10cc (2 cups using the cap of the bottle) of the product to your bath. Enzymes help plant enzymes, minerals, micronutrients and vitamins penetrate into the skin smoothly. It is gentle to atopic eczema and sensitive skin.

Components: Minerals (calcium, magnesium, potassium and sodium), micronutrients (iron, zinc, manganese, iodine and silicon), vitamins (folic acid), and other components such as capsaicin, allyl sulfate, acetic acid, azadirachtin, margocin, curcuminoid, etc.

Shapes and Size: Mixture of granules and powder (contents: 20kg)

**Storage:** Please avoid keeping the product in direct sunlight, avoid high temperatures (over 40°c) or cold temperatures (below 0°c).

Expiry: 2 years (stored in a cool dark place)

Labeling: Soil Conditioning Agents (Safe materials made from dietary supplements)

Price: ¥64,800/bag (20kg)

**Instruction:** Mix NP Powder with composts and other farm soils at a 1:1000 ratio. When mixing, please wet the compost with Sosaku Enzyme and let the mixture sit for over 15 days for activation. When you turn the compost over after 15 days, please spray Sosaku Enzyme one more time.

Indication Amount for Use: 100kg Np Powder for one greenhouse (Appox. 330m²)

300kg for 0.1ha of farm land

20kg for 1 mature tree

**Attention:** Using the product without mixing with soils can be harmful. Mix NP Powder with composts and other farm soils at a 1:1000 ratio, and use it after letting them sit and activate over 14 days. The adequate amount can vary depending on soil conditions, landscapes, weather, and kind of crops. Please adjust the amount according to the situation.

Best regards,

Thank you,

Amano Koso Inc.

# **ANALYSIS REPORT**

# Heavy Metal Analysis

Director Masataka Ishiguro Food Research Laboratory NOUMINREN (Japan Family Farmers Movement)

Amplicant	Address	1-6-1 Shibazaki, Che	1-6-1 Shibazaki, Chofu, Tokyo			+81-424-80-2071
Applicant	Name	Amano Inc.		F	AX	+81-424-89-5668
Material	Product	Refer to below				
Analyzed	Manufacturer	Amano Inc.				
Test Date	June 14th, 2005	Material received	June 15th, 2005	Category	Heavy	Metal Analysis

#### 1. Procedure

The sample was digested with nitric acid using a wet digestion method by a pretreatment device. Then it was analyzed for its components using an atomic absorption photometer (Graphite furnace systems) at the appropriate dilution. Quantitative techniques were used to determine the amount.

### 2. Condition, Device and Other

Pretreatment Device: Microwave Sample Digestion Device (O.I. Analytical)
Atomic Absorption Photometer: Polarized Zeeman Atomic Absorption Spectrophotometer Z-5010 (Hitachi)

3. Result (mg/kg)

Analysis No.	Product	Manufacturer	Test Resu	lt	Low Limit
			As (Arsenic)	< 0.01	
	Sosaku Enzyme		Cd (Cadmium)	< 0.01	
111-01	(A soil conditioner)	Amano Inc.	Cu (Copper)	0.03	
		7 tinano me.	Pb (Lead)	<0.01	0.01
	ND7		As (Arsenic)	< 0.01	0.01
111-02	NP7 (An agricultural vitalizing		Cd (Cadmium)	< 0.01	
111-02	agent)		Cu (Copper)	0.07	
	agent)		Pb (Lead)	< 0.01	

This analysis report is effective strictly on the submitted samples. It does not refer to products outside of this sample.

Analysis Completed: June 23<sup>rd</sup>, 2005 The person in charge of the analysis: Jun Izumi

# ANALYSIS CERTIFICATE

# Heavy Metal Contents Analysis

Analysis No.188-01

Applicant	Amano Inc.	Sample submitted	May 9th, 2006
Product Analyzed	NP Powder	Analysis test completed	May 23 <sup>rd</sup> , 2006

The result from the heavy metal test on the sample is shown below. The values are determined by the Food Sanitization Act of the Ministry of Health Labor and Welfare.

Result (1kg)		Standard Values	Method	Detection Limit
Cr (Chromium)	7.24 mg	Not specified	JIS K1020 Electrical heating technique	0.01
Cu (Copper)	17.9 mg	Not specified	JIS K 1020 Electrical heating technique	0.01
As (Arsenic)	0.07 mg	Not specified	JIS K1020 Electrical heating technique	0.01
Se (Selenium)	0.02 mg	Not specified	JIS K1020 Electrical heating technique	0.01
Cd (Cadmium)	0.29 mg	Not specified	JIS K 1020 Electrical heating technique	0.01
Pb (Lead)	1.16 mg	Not specified	JIS K1020 Electrical heating technique	0.01

This analysis certificate is effective strictly on the submitted samples. It does not refer to products outside of this sample.

# **TEST CERTIFICATE**

Agricultural Training Center in the town of Toyako

Application submitted: December 15<sup>th</sup>, 2006 Name of Sample: Imidacloprid 1% only Granular formulation 1% **Environmental Research Center** 

Main Office: 3-1 Hanare Tsukuba, Ibaraki, 305-0857 Measurement Certification Service (Density) No.25

Food Safety Testing Office: 210-4 Tsumaki, Ibaraki, 305-0028

Tel: +81-29-863-2600 / Fax: +81-29-863-2603

The test result on the submitted sample is reported as below.

Testing material		Result (ppm)	Low Limit (ppm)	Standard Value (ppm)	
1	Imidacloprid	0.58	0.01	5	

Penetration testing result (values can vary according to electro conductivity)

The charts below show the result of penetration testing conducted on spinach using an agrochemical, Imidacloprid diluted using water and Sosaku Enzyme.

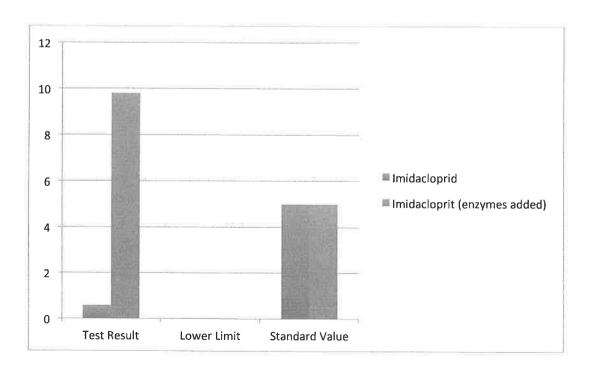
(1) Water diluted Imidacloprid solution (at 1:10,000 ratio) (2) Diluted Imidacloprid solution mixed with Sosaku Enzyme (at 1:5000 ratio) Spraying both solutions over spinach and harvesting it the next morning. The spinach was then sent to the laboratory and examined. Below is the plants' penetration analysis.

Diluted Imidacloprid solution mixed with Sosaku Enzyme was proven to be 17 times more effective than water diluted Imidacloprid solution in terms of improving plants' penetration.

The test result on the submitted sample is reported below.

	Sample Tested	Result (ppm) Low Limit (ppm)		Standard Value (ppm)	
I	Imidacloprid	9.8	0.01	5	
Note	The result "No detection" ref calculated by standard reference	Person in Charge Stamped and Certified by			
	Inside the bracket ( ) refers to t	Mr.Tsuchihashi			

	Imidacloprid	Imidacloprid (with enzymes added)
Test Result	0.58	9.8
Lower Limit	0.01	0.01
Standard Value	5	5



Test Result for Liquid Fertilizing Test using Japanese mustard spinach (Komatsuna) /Applying additional Dokonjo (a soil conditioner)

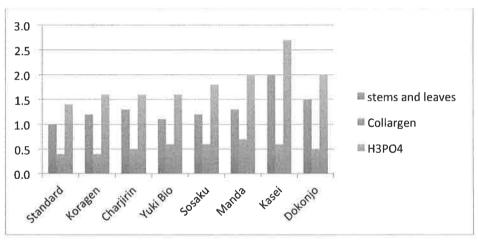
Category	Standard Fertilizer	*Koragen	*Charjirin	*Yuki Bio	*Sosaku Enzyme	*Manda	*Kasei	*Dokonjo
Stems and Leaves (weight)	1.0	1.2	1.3	1.1	1.2	1.3	2.0	1.5
Roots (weight)	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.5
T/R ratio	2.5	3.0	2.9	2.1	2.1	1.9	3.3	3.4
Sugar Content	5.3	5.5	4.4	4.9	5.6	4.6	5.6	4.9
Total Weight	1.4	1.6	1.6	1.6	1.8	2.0	207	2.0

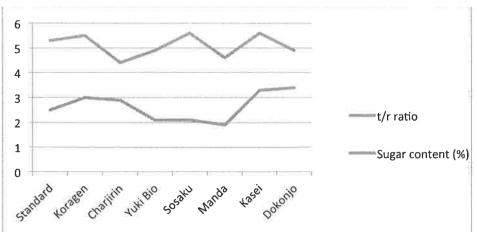
<sup>\*</sup>Product names for agricultural agents from different manufacturers.

# Testing Procedure

1. 2. 3. 4. 5. 6.	Standard Fertilizer: NPK=1:1 (kg/10acre) Koragen: 1. (Standard fertilizer) + Koragen Charjirin: 1. + Charjirin Yuki-Bio: 1. + Yuki Bio Sosaku Enzyme: 1. + Sosaku Enzyme Manda Enzyme: 1. + Manda Enzyme	Sprayed the product at each time of sowing, 10 days after sowing, and 20 days after sowing through irrigation system.
7. 8.	Kasei: 1. + Kasei (10 days later) Dokonjo: 1. + Dokonjo (10 days later)	Applied additional 20kg of Dokonjo and Kasei after 15 days

Category	Standard	Koragen	Charjirin	YukiBio	Sosaku	Manda	Kasei	Dokonjo
Stems and Leaves (weight)	1.0	1.2	1.3	1.1	1.2	1.3	2.0	1,5
Roots (weight)	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.5
T/R ratio	2.5	3.0	2.9	2.1	2.1	1.9	3.3	3.4
Sugar Content (%)	5.3	5.5	4.4	4.9	5.6	4.6	5.6	4.9
Total Weight	1.4	1.6	1.6	1.6	1.8	2.0	207	2.0





# Land Improvements

# Necessary procedure

- 1. Use Organic Fertilizer
- 2. Nourishing Microorganisms:

helps microorganisms to aggregate and plants can grow their deeper roots

# 3. Using Enzymes

Nourish microorganisms (microorganisms feed enzymes as well as other creatures do)

# 4. Neutralizing Phosphoric Acid

- 1. Crops can absorb phosphoric acid in the soil
- 2. Phosphoric acid helps plants to develop strong cell walls solid roots and thick stems and leaves
- 3. Phosphoric acid helps plants to retain sugar level improve taste of crops
- 4. Strong cell walls have preservation effects on fresh fruit and vegetables
- 5. Adding compost to soils and spray enzymes on your farm land

helps the soil aggregation which aids plants to grow deeper and stronger roots.

# 6. Following Lunar Calendars

- 1. Crops that grow their fruit underground and above ground are supposed to be sowed or planted on different dates. We ought to obey the laws of nature to grow healthy crops.
- Crops with their fruit underground and above ground are supposed to be harvested on different dates.
   Following the lunar calendar, harvested crops are flavorful and kept fresh for a long time. This leads to excellent seed productions.
- 3. When consumers eat fruit and vegetables from healthy plants, they can stay healthy without suffering from diseases.

Creatures on earth in the solar system get to maintain their peaceful lives when we respect nature. We should take advantage of the lunar calendar.

# Price List

# Products for Agricultural Use: Sosaku Enzymes, Sosaku Enzymes V

Dilute the product to use (foliar application: 1:10,000 dilution ratio, soil application: 1:5000 dilution ratio)

Product Name	Dilution Ratio	Price (¥)	Consumer taxes (¥)	Total (¥)
Sosaku Enzyme 1L	1:10,000	20,000	1,600	21,600
Sosaku Enzyme 20L	1:10,000	320,000	25,600	345,600
Sosaku Enzyme V 1L	1:10,000	23,000	1,840	24,840
Sosaku Enzyme V 20L	1:10,000	400,000	32,000	432,000

Fertilizer: NP7 G-1

Dilute the product to use (Dilute 1L of the product with 10,000L water)

Product Name	Dilution Ratio	Price (¥)	Consumer taxes (¥)	Total (¥)
NP7 G-1 1L	1:10,000	15,200	1,216	16,416
NP7 G-1 20L	1:10,000	240,000	19,200	259,200

Fertilizer: NP7 n

Dilute the product to use (Dilute 1L of the product with 10,000L water)

Product Name	Dilution Ratio	Price (¥)	Consumer taxes (¥)	Total (¥)
NP7 n 500cc	1:10,000	10,000	800	10,800
NP7 n 1L	1:10,000	18,000	1,440	19,440
NP7 n 20L	1:10,000	288,000	23,040	311,040

Free shipping: when you buy 5 bottles of NP7 n 1L (8 bottles of NP7 n 500cc) and more

#### Soil Conditioner: NP Powder

(Long Lasting Effect: Sosaku Enzyme, NP 7, Bamboo Charcoal, Neem Powder, Cinnamon Bark, Seaweed)

Product Name	Weight	Price (¥)	Consumer taxes	Total
NP Powder 100	20kg	20,000	1,600	21,600
NP Powder 1000	20kg	60,000	4,800	64,800

NP Powder 100: Mix it in compost and other farm soils at 1:100 ratio, and spray the Sosaku Enzyme solution (1:10,000 dilution) over the soil

NP Powder 1000: Mix it in compost and other farm soils at a 1:1000 ratio, and spray Sosaku Enzyme solution (1:10,000 dilution) over the soil

Spread the soil mixture and rake it in the field after allowing 2 weeks or more of activation period.

# Enriching Soils, People and Country

Manufacturer and Distributer Amano Koso Inc.

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