SAFETY DATA SHEET

Section 1: Identification	
Product identifier used on the label;	
Product name: Phar	maGABA TM
Other means of identification;	
No information γ -AMIN	OBUTYRIC ACID
Recommended use of the chemical a	nd restrictions on use;
Recommended use: Food	l application
Restrictions on use: No in	nformation
Name, address, and telephone numb	ber of the chemical manufacturer, importer, or other responsible
party;	ber of the enclinear manufacturer, importer, or other responsible
Name:	PHARMA FOODS INTERNATIONAL CO., LTD.
Department in Charge:	SALES DEPT.
Address:	1-49, Goryo-Ohara, Nishikyo-ku, Kyoto, 615-8245 Japan
Telephone number:	+81-75-394-8610
Fax number:	+81-75-394-0009
e-mail address:	info_ingredients@pharmafoods.co.jp
Emorgonov phone number	
Emergency phone number	+81-75-394-8605 (PRODUCTION CONTROL DEPT.)
Section 2: Hazard(s) identification	
Classification of the chemical in acco	ordance with paragraph (d) of §1910.1200;
Physical Hazards	
	Not classified
Health Hazards	
	Not classified
E	
Environmental Hazards	Not classified
Other Hazards No information	
Signal word, hazard statement(s).	symbol(s) and precautionary statement(s) in accordance with
paragraph (f) of §1910.1200;	
Symbol(s)	Not applicable
Signal word	Not applicable
0	**

Signal word	Not applicable
Hazard Statement(s)	Not applicable
Precautionary Statement(s)	Not applicable

Description of any hazards not otherwise classified;

No information

Ingredient with unknown acute toxicity in the mixture

No information

Section 3: Composition/information on ingredients

Compositions (contents of the product)

Chemical name	CAS No.	Concentration/concentration ranges (wt %)
γ-AMINOBUTYRIC ACID	56-12-2	>80

Section 4: First-aid measures

Necessary first-aid measures by relevant routes of exposure;

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IF INHALED	Remove victim to fresh air and keep at rest in a position
	comfortable for breathing.
	If symptoms continue, call a doctor/physician.
IF ON SKIN	Rinse with plenty of water.
	If symptoms continue, call a doctor/physician.
IF IN EYES	Immediately rinse cautiously with water for 15 - 20 minutes.
	Remove contact lenses, if present and easy to do. Continue
	rinsing. If symptoms continue, call a doctor/physician.
IF SWALLOWED	A little amount of swallowing does not require medical
	attention. Call a physician if a great amount is swallowed.

Most important symptoms/effects, acute and delayed;

Not applicable

Indication of immediate medical attention and special treatment needed, if necessary;

No information

Section 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media;

Suitable extinguishing media:

Use water mist, dry chemical powder, fire foam, carbon dioxide or sand.

Unsuitable extinguishing media

Applying direct water may be dangerous because fire may expand to surroundings.

Specific hazards arising from the chemical;

General caution; powdered materials may cause dust explosions under certain conditions. This product is burnability.

Spray extinguishing above media to the flame.

Special protective equipment and precautions for fire-fighters;

Cut off any ignition sources and extinguish with an appropriate agent.

Cool the surrounding tank and the buildings with direct water jet to avoid risk of fire spreading. Take action from windward.

Keep out except responsible personnel.

Move container to a safe area if it can be done without risk.

Section 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures;

Keep out except responsible personnel.

Wear suitable protective equipment described in Section 8: Exposure controls/personal protection. There is no knowledge for environmental effect.

Methods and materials for containment and cleaning up;

Scoop up and move to empty case with shovel etc.

Sweep up with dustcloth or paper towels then insinerate.

Do not eat or drink near handling and storage locations.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent to flowing into drains, sewers, basements or closed areas.

Section 7: Handling and storage

Precautions for safe handling

Protective measures:

Install appropriate equipment and wear suitable protective apparatus described in Section 8: Exposure controls/personal protection.

Handle the product in a well-ventilated area. In case of mist/vapours generation, use local ventilation. Avoid leaking and disperse.

Do not eat, drink or smoke when using this product.

Avoid the generation of dust.

Advice on general occupational hygiene:

Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Technical measures:

In the storage area, install adequate light and ventilation systems to handle hazardous materials. Take precautionary measures against static discharge.

Incompatible materials:

No information

Conditions for safe storage:

Avoid high temperature and humidity (15°C or less). Store in cool dark place.

Packing material:

Use a sealed container without damage or leakage.

Section 8: Exposure controls/personal protection

Occupational Exposure Limits;

OSHA PEL	Not applicable
ACGIH TLV	Not applicable

Appropriate engineering controls;

Shower and eye washer should be available in the work area. Under high temperature or in case of mist generation, use ventilation.

Individual protection measures, such as personal protective equipment;

Respiratory protection	In case of dust generation, wear appropriate protective mask
	or air aspirator as required.
Hand protection	If hand contact is possible, wear protective gloves.
Eye protection	Wear safety glasses or goggles if in eyes.
Skin and body protection	Wear protective clothing and apron if necessary.

Section 9: Physical and chemical properties

Appearance	Light yellow – light brown powder
(physical state, color, etc.)	Caking, browning
Odor	No information
Odor threshold	No information
pH	No information
Melting point/freezing point	202°C (Decomposition)
Initial boiling point and boiling range	No information
Flash point	No information
Evaporation rate	No information
Flammability (solid, gas)	No information
Upper/lower flammability or	No information
explosive limits	
Vapor pressure	No information
Vapor density	No information
Relative density	No information
Solubility (ies)	Water: soluble
	Other solvent: insoluble or poorly soluble
Partition coefficient: n-octanol/water	-3.17
Auto-ignition temperature	No information
Decomposition temperature	No information
Viscosity	No information

Other information

No information

Section 10: Stability and reactivity

Stable under normal handling condition.

Chemical stability

Stable under normal handling condition.

Possibility of hazardous reactions

No hazardous reaction expected under normal handling.

Conditions to avoid

Avoid sunlight. Store in a cool place. Keep away from moisture.

Incompatible materials

No information

Hazardous decomposition products

No information

Section 11: Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics;

Information on product:

No information

Information on ingredients:

γ-AMINOBUTYRIC ACID

Acute toxicity (oral):

Mouse $LD_{50} = 12,680 \text{ mg/kg}$

Delayed and immediate effects and also chronic effects from short- and long-term exposure;

Not applicable

Numerical measures of toxicity (such as acute toxicity estimates);

Not applicable

Whether the chemical is listed in the NTP Report on Carcinogens or has been found to be a potential carcinogen in the IARC Monographs, or by OSHA;

IARC: Not listed as Group1, Gruop2A or Group 2B NTP Report: Not listed OSHA: Not listed

Section 12: Ecological information

Ecotoxicity:

Information on product:

No information

Persistence and degradability:

Information on product:

Bioaccumulative potential:

Information on product:	No information	
Mobility in soil: Information on product:	No information	
Athar advarsa affacts:		

Other adverse effects:

No information

Section 13: Disposal considerations

Waste treatment methods

Incinerate waste in accordance with applicable local, regional and international regulations and standards.

When disposing, consult to a certificated waste trader or local offices if they deal with the waste.

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.

Contents should be removed completely when dispose of empty containers.

UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class(es)	Not applicable
Packing group	Not applicable
Environmental hazards	Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not applicable

Special precautions for user

When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.

Section 15: Regulatory information	
OSHA:	Not hazardous chemical
TSCA inventory:	This product is listed on the TSCA Inventory.
TSCA SNUR:	Not listed
SARA Title III:	Section 302 (Extremely Hazardous Substances): Not listed
	Section 304 (Hazardous Substances): Not listed
	Section 313 (TRI Chemicals): Not listed
Clean Air Act:	This product does not contain any substances regulated as hazardous air
	pollutants under Section 112 of the Clean Air Act.
Clean Water Act:	This product does not contain any substances regulated as pollutants pursuant
	to the Clean Water Act.

Section 16: Other information, including date of preparation or last revision Update history: Date of issue: 20th Sep, 2016

References:

Information of PHARMA FOODS INTERNATIONAL CO., LTD. The Merck Index 15th Ed (2013) ChemIDplus (2016)

[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.