



# **FEED CHEMICALS BROCHURE**



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# About Us

Tradeasia International Pte. Ltd. is a privately owned, independent company headquartered in Singapore. We are a global trading organization providing integrated chemical procurement services with certainty and trust, which makes Tradeasia unique.



Tradeasia International was setup with the sole intention of carrying out chemical distribution services especially to commodity industries in many parts of the world. Today, Tradeasia International represents a growing number of businesses that are serving a variety of markets. We source and supply about 500-600 containers monthly to our customers worldwide.



### Soybean Meal

Soybean meal is the final product obtained after oil has been extracted from soybeans. It contains a high amount of digestible proteins and amino acids essential for livestock and poultry. It usually exists in 3 forms: full-fat, defatted or defatted and dehulled, all containing different protein concentrations and metabolizable energy. The meal is usually processed into flakes to facilitate oil extraction from the actual beans.

HS Code	: 2304.00.30
CAS No.	: 68308-36-1
Origin	: India, China
Packaging	: 50kg bags



#### Specifications:

Property	Unit	Value
Appearance		Tanned or dark brown flakes
Odor		Odorless
Purity	%	90 - 100
Protein	%	≥40
Fat	%	≤1
Ash	%	7
Moisture	%	≤12

#### Applications :







#### **Animal Feed Industry**

Majority of soybean meal produced is used in animal feed as a source of protein. Depending on the different type of soybean meal produced (full fat, defatted, defatted and dehulled), the meal can then be fed to swine, poultry and ruminant animals.

# **Corn Gluten Meal**

Corn gluten meal is the main protein extracted from the endosperm of corn. It is a product of wet-milling corn, along with other products such as starch and corn oil. Corn gluten meal is rich in protein with a protein content of approximately 65% and is commonly used as feed for livestock. Corn gluten meal can also be used for agricultural purposes.

: 2303.10.00
: 66071-96-3
: India, China
: 25kg bags

Specifications:				
Main Analysis	Unit	Avg.	Min.	Max.
Dry Matter	% as fed	90.0	87.3	96.2
Crude Protein	% DM	67.2	56.9	76.2
Crude Fibre	% DM	1.2	0.4	2.7
NDF	% DM	4.1	1.1	8.6
ADF	% DM	1.6	0.3	3.7
Lignin	% DM	0.3	0.2	0.6
Ether Extract	% DM	2.9	1.0	6.5
Ash	% DM	2.1	1.1	4.6
Starch (Polarimetry)	% DM	17.6	9.1	26.0
Total Sugars	% DM	0.5	0.2	1.2
Gross Energy	MJ/kg DM	23.1	21.2	24.1

#### **Applications :**



Animal Feed Industry

Due to its high protein content and excellent digestivity, corn gluten meal is commonly used in feed for poultry and in aquafeed. Corn gluten meal is also used in pet food as an additional source of protein.



Corn gluten meal is frequently used as a herbicide to prevent unwanted weed formation, and is used as a fertilizer due to its high nitrogen content.

#### Category: Meal

### **Soy Protein Concentrate**

Soy protein concentrate is a type of protein that is made by removing water-soluble carbohydrates from defatted and dehulled soybeans. It is made up of about 70% soy protein and retains most of the fiber within the original soybean. It is usually available as an off-white powder, with bland odour and taste. It is widely used in animal feed as an additional source of protein or as a milk replacement.

: 2106.10.00
: 9010-10-0
: India, China
: 25kg bags

#### **Specifications:**

•		
Property	Unit	Value
Appearance		Yellow or milk white powder
Odor		Odorless
Purity	%	≥68
Moisture	%	≤8
Particular Size	%	95% pass 100 mesh
Ash	%	≤6
рН		6.0 - 7.5

#### **Applications :**



Animal Feed Industry

Soy protein concentrate is easily digestible and suitable for use in pet foods. Most pet food products and animal diets contain soy derived products as an additional source of protein and fibers. Soy protein concentrates can also be used as feed for aquaculture and livestock such as swine, poultry and ruminants.



Milk Replacement Products

The low soluble carbohydrate content and lower immunogenicity in soy protein concentrates allow it to be used in milk replacements for both humans and baby animals such as calves and pigs. The proteins are used to incorporate fat into formulations by forming fat emulsions and to provide protein for nutrition.

#### Category: Meal

### Fish Meal

Fish meal is a commercial product mostly from dried and grindered fish, which is commonly used in feed production as protein source. Fish meal is critical raw material for animal production and reproduction due to high protein contents. It is made from the bones and offal left over from fish caught by commercial fisheries.

HS Code	: 2309.90.32
CAS No.	:97675-81-5
Origin	: India, China
Packaging	: 1000kg jumbo bags



#### Specifications:

Specifications.		
Property	Unit	Value
Appearance		Light brown powder
Crude Protein	%	70 (min)
Crude Fat	%	13.5 (max)
Moisture	%	10 (max)
Chloride (Salt)	%	4 (max)
Ash	%	14 (max)
TVN	%	0.18 (max)
Water Soluble Protein	%	18 (min)
Cadaverine	ppm	1000 (max)
Histamine	ppm	150 (max)
Antioxidant	ppm	150 (ethoxyquin)
Quality of Raw Material		TVN max. 50 mg N/100g
Salmonellae		Not Proved

#### **Applications :**







#### Animal Feed Industry

Fish meal is used to feed farmed fish, swine, and poultry. It also used as fertilizer and as preparation of certain antibiotics for the pharmaceutical industry.

#### Category: Meal

### **Meat Bone Meal**



Meat bone meal is a commercial product mostly made by cooking, defatting, sterilizing, grinding, and sifting by-products of terrestrial animals. MBM is primarily used in the formulation of animal feed to improve the amino acid profile of the feed. It also used as an alternative low-cost protein source for pet food. MBM contains high digestible protein, long-chain fatty acid, essential vitamins, and minerals.

HS Code	: 2301.20.11
CAS No.	: 92113-16-1
Origin	: China, India
Packaging	: 1000kg jumbo bags

Property	Unit	Value
Appearance		Light brown powder
Protein	%	45 (min)
Ash	%	36 (max)
Fat	%	12 (max)
Moisture	%	8 (max)
Fiber	%	3 (max)
Calcium	%	10 (min)
Phosphorous	%	5 (min)
Antioxidant	ppm	200 (min)
Protein Digestibility	%	85 (min) in Pepsin

### Specifications:

#### **Applications :**



#### **Pet Food Industry**

MBM is widely used in the United States as a low-cost animal protein in dog food and cat food. While feeding meat and bone meal to livestock animals (ruminants, pigs, poultry, and fish) is restricted or banned in many countries.

# L-Lysine HCL

Lysine (biologically active in its L-stereoisomer form) is one of the essential amino acids not synthesized biologically in the body. L-lysine is commonly commercially produced as L-lysine monohydrochloride (L-lysine HCl), with purity higher than 98.5 wt.%, which corresponds to 78.8 wt.% of free lysine. L-lysine HCL is typically used as a supplement in animal feed, allowing the use of lower cost plant proteins to improve animal weight gain and improve animal production.



HS Code	: 2922.41.00
CAS No.	: 657-27-2
Origin	: China
Packaging	: 25kg bags

#### **Specifications:**

Property	Unit	Value
Appearance		Light brown powder
Protein	%	45 (min)
Ash	%	36 (max)
Fat	%	12 (max)
Moisture	%	8 (max)
Fiber	%	3 (max)
Calcium	%	10 (min)
Phosphorous	%	5 (min)
Antioxidant	ppm	200 (min)
Protein Digestibility	%	85 (min) in Pepsin

#### **Applications :**



#### Animal Feed Industry

L-lysine HCL is commonly used in animal feed industry as a supplement for poultry, swine and aquaculture. Benefits of L-lysine HCL are: sparing effect of the crude protein content, replacement of animal proteins by vegetable proteins, promotor growth animals and improve meat quality.

#### Category: Protein - Amino Acid

### **L-Lysine Sulfate**

L-lysine sulfate containing 51% lysine (equivalent to 65% feed grade

HS Code	: 2922.41.00
CAS No.	: 60343-69-3
Origin	: China
Packaging	: 25kg bags

Specifications:	
Property	

Property	Unit	Value
Appearance		Yellow-brown powder
L-lysine Content (dried basis)	%	55 (min)
Other Amino Acid	%	≥10
Loss on Drying	%	≤4
Burn Residue	%	≤4
Ammonium Salt (as Nh4+)	%	≤1
Lead (Pb)	ppm	≤0.002
Passing Rate of 2000µm	%	≥90
Arsenic	%	≤0.0002
рН		3 - 6

#### **Applications :**



L-Lysine sulfate is widely used as nutritional supplement in Agriculture/Animal Feed. It improves growth in pig feed, poultry feed, fish feed and egg production.



L-Lysine sulfate is used as nutritional supplement to fortify Lysine, flavor enhancer to improve flavor in food production. It also worked as nutritional supplement in beverage. It provides nutrients in mayonnaise and milk.



In pharmaceutical industry, L-Lysine sulfate is used as nervous system drugs and nutritional therapy



L-Lysine sulfate is also used as intermediate in various other industries. It is used to manufacture various organic chemicals.

Category: Protein - Amino Acid

### **L-Threonine**

Threonine is an amino acid with the chemical formula of  $C_4H_9NO_3$  and is used in the biosynthesis of proteins. It contains an  $\alpha$ -amino group, a carboxyl group, and a side chain containing a hydroxyl group, making it a polar, uncharged amino acid. Threonine is synthesized from aspartate in bacteria such as E. coli.

HS Code	: 2922.49.10
CAS No.	: 72-19-5
Origin	: China
Packaging	: 25kg bags

#### **Specifications:**



specifications.		
Property	Unit	Value
Appearance		White to light brown, crystal brown
Loss on Drying	%	1.0 (max)
Residue on Ignition	%	0.5 (max)
Heavy Metals	ppm	20 (max)
As	ppm	2 (max)
Solubility	mg/ml	50

#### **Applications :**



L-Threonine is mainly used in animal feed industry as a supplement for poultry, swine and aqua. Benefits of L-Threonine are:

- improvement amino acid balance,
- stimulates lysine absorption and digestion,
- reduces nitrogen excretion which is beneficial to the environtment,
- prevent deficiency threonine,

Animal Feed Industry • serves as a source of energy and regulate feed intake,

#### Category: Protein - Amino Acid

# **DL-Methionine**

Methionine is a substrate for other amino acids such as cysteine and taurine and is an essential amino acid. Methionine is also important in angiogenesis which is the growth of new blood vessels. In plants and microorganisms, methionine biosynthesis belongs to the aspartate family, along with threonine and lysine (via diaminopimelate, but not via  $\alpha$ -aminoadipate)

HS Code	: 2930.40.00
CAS No.	: 59-51-8
Origin	: China
Packaging	: 25kg bags

		CAS No. Origin Packaging	: 59 : Cl : 2!
Unit	Va	lue	
	White or light	t grey powder	
%	≥9	99	
%	≤(	).3	
%	≤(	).2	
mg/kg	≤ž	20	
mg/kg	5	2	
	% % % mg/kg	White or light   %   2   %   3   %   4   %   4   %   4   %   4   %   4   %   %   4   % <td>Origin PackagingUnitValueImage: Constant of the second second</td>	Origin PackagingUnitValueImage: Constant of the second

#### **Applications :**



DL-Methionine is mainly used in animal feed industry as a supplement for poultry, swine and aqua. Benefits of DL-Methionine are:

- increases hemoglobin syntesis,
- improves kidney function,
- increases urine acidity which prevents kidney stone formation,
- more effective digestion,
- Animal Feed Industry reduced feed costs,
  - less harm to the environment

#### Category: Vitamin

### **Choline Chloride Corn Cob**



**Specifications:** 

Choline is classified as Vitamin B complex (often called vitamin B4). Vitamin is one of micronutrients which important in feed formulation to completed nutrients for basic animal life and maintaning lifestock health. Choline chloride is synthesized in the liver, it is naturally available. It is however required in greater amounts than the body produces. Therefore choline chloride is an essential B-Vitamin and a required dietary supplement.

: 2309.90.10
: 67-48-1
: China
: 25kg bags

Property	Unit	Value
Appearance		Yellowish brown granular powder
Choline Chloride	%	60
Particle 20 Mesh Passed	%	80 - 100
Moisture	%	≤3.0
Trimethylamine (TMA) Residual Free Amine (as TMA)	ppm	≤250
Density	%	0.4 - 0.6

#### **Applications** :



prevent abnormal accumulation of in (fatty Animal Feed Industry functions and enchance growth.

#### Category: Vitamin

# **Choline Chloride Liquid**

Choline (2-hydroxyethyl-trimethyl ammonium hydroxide) maintain the physiological functions of animals' bodies as a low-molecular organic compound that can be synthesized in vivo, but usually required in feed as a single vitamin, the largest demand in feed additive. Choline chloride liquid is an ammonium salt liquid mixture. It delivers essential nutrients and electrolytes and accelerates cell growth in early development stages.

HS Code	: 2309.90.10
CAS No.	: 67-48-1
Origin	: China
Packaging	: 25kg bags

#### **Specifications:**

Property	Value
Choline Chloride	75% (min)
рН	6.0 - 8.0
ТМА	300 ppm (max)

### **Applications :**

#### Animal Feed Industry

Choline chloride liquid is used to feed farmed fish, swine, cattle and poultry with following benefits:

- prevents abnormal accumulation of in (fatty liver),
- prevents condition such as perosin and liver enlargement in chicks,
- essential requirement to maintain body functions and enhance growth,

• essential metabolic in the building and maintenance of cell structure, maturation of the cartilage matrix of bone.



#### Category: Vitamin

# **Folic Acid**

Folic acid is a tasteless, odourless, yellow-orange crystalline powder that is insoluble in alcohol, ether and other organic solvents. It is the synthetic form of vitamin and provides folates which are essential for DNA synthesis, repair and methylation. It is found naturally in many foods including dark leafy vegetables and a variety of fruits. Folic acid is widely used in feed, food and pharmaceutical applications.

HS Code	: 2936.29.10
CAS No.	: 59-30-3
Origin	: China
Packaging	: 25kg bags



Specifications:			
Property	Unit	Value	
Appearance		Yellow crystalline powder	
Water Content	%	≤8.5	
Residue on Ignition	%	≤0.30	
Chromatographic	%	≤2.0	
Assay	%	97.0 - 102.0	
Total Plate Count	cfu/g	≤1000	
Coliforms	MPN/100g	≤30	
Mold & Yeast	cfu/g	≤100	
Salmonella		Negative	

#### **Applications :**



**Animal Feed** Industry

Feed grade folic acid is used for anemia poultry will lead to loss of appetite, poor



**Food Industry** 



defects" birth defects.

### Category: Mineral **Monocalcium Phosphate**



Monocalcium phosphate, also known as acid calcium phosphate, is an inorganic compound and is commonly found in monohydrate form. Monocalcium phosphate produced by defluorinated phosporic acid. It's containing of high phosporus and calcium which important in animal production especially poultry production. It also strengthens bone structure and teeth. regulate acid-base and osmotic balance on livestock.

HS Code	: 2835.26.10		
CAS No.	: 7758-23-8		
Origin	: China		
Packaging	: 25kg bags		

Specifications.				
Property	Unit	Value		
Appearance		Light gray granular		
Total Phosphorus	%	22 (min)		
Water-soluble P Rate	%	75 (min)		
Calcium	%	13 (min)		
As F Unit	%	0.18 (max)		
As As Unit	ppm	10 (max)		
рН	%	3 (min)		
Water Content	%	2 (max)		
Particle size I pass 500µm	%	90 (min)		
Particle size II pass 10-60 mesh	%	90 (min)		

#### **Specifications:**

#### **Applications** :



Industry







many other industries like glass and

#### Category: Mineral

# **Dicalcium Phosphate**

Dicalcium phosphate is also known as calcium monohydrogen phosphate or dibasic calcium phosphate with the chemical formula CaHPO<sub>4</sub>. There are three forms of dicalcium phosphate i.e., dihydrate or mineral brushite, hemihydrate, and anhydrous or mineral monetite. Dicalcium phosphate is used in various applications such as animal feed industry, fertilizer industry, and food industry.

HS Code CAS No.	: 2835.25.00 : 7789-77-7
Origin	: China
Packaging	: 25kg bags

#### Specifications:

Property	Unit	Value
Appearance		Light gray granular
Total Phosphorus	%	18 (σ=0.25)
n Ammonium Citrate (Petermann)	%	99
n Citric Acid 2%	%	99
Calcium (Ca)	%	28
Ca/P	%	1.60
Chlorides (as NaCl)	%	0.03
H (1% solution in water)	%	7.30
Humidity (free water)	%	0.30
HCl insoluble ash	%	0.70

#### **Applications :**



Animal Feed Industry

In animal feed industry, dicalcium phosphate is used for poultry, swine and farmed fish. It's owing to various properties such as ease in feed digestibility and improves the nutritional quality.



This medication is used to prevent or treat low blood calcium levels also treat conditions caused by low calcium levels such as bone loss (osteoporosis), weak bones (osteomalacia/rickets), etc



Oral surgeons use dicalcium phosphate to aid in the healing process. It can also replace fluoride as the best way to prevent tooth decay. Manufacturers often add it to teeth whiteners as an abrasive to gently polish your teeth.



# **CONTACT US**

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