Product Technical Data Sheet	
Product name: Hyaluronic Acid	**AC code: AC05142a**

1.Technical Data Sheet		
CAS number	9004-61-9	
Molecular weight	1.5 - 2.0 Million Da	
Molecular Formula	(C14H21NO11)n	
Compliance (Food / Pharmacopoeia / FCC / Feed)	Food / Pharmacopoeia / Cosmetic	
Source (animal, plant, mineral, petrochemical)	Bacteria	
Brief introduction: Promotes facial skin health, improves skin moisture and antioxidants; Lubricate joints: The results showed that hyaluronic acid and the peptides and glycopeptides in synovial fluid play an important role in lubrication; To delay the aging and functional decline of human tissues and organs caused by the decrease of hyaluronic acid.		
Item	**Standard**	**Analysis Method**
Appearance & Solubility		
Appearance	White or almost white powder, flavorless	
Solubility	Sparingly soluble or soluble in water, practically insoluble in acetone and in anhydrous ethanol	
Typical Analysis		
Identification	A. Infrared absorption spectrophotometry B. It gives reaction(a)of sodium	/
Transparency (in 0.1% aq.sol)	≥ 99.0%	Enterprise Standard
Hyaluronic Acid	≥ 95%	Enterprise Standard
Glucuronic Acid	≥ 45%	Enterprise Standard
Particle Size	≥ 80 mesh	Enterprise Standard
PH Value	6.0 ~ 7.5	Enterprise Standard
Molecular Weight	1.5 - 2.0 Million Da	Enterprise Standard
Protein	≤0.1%	Enterprise Standard
Loss on drying	≤10.0%	Enterprise Standard
Residue on Ignition	≤20.0%	Enterprise Standard
Nitrogen	3.0% ~4.0%	Enterprise Standard
Chlorides	≤ 200ppm	Enterprise Standard
Ammonium	≤ 200ppm	Enterprise Standard
Sulfate (SO4)	≤ 300ppm	Enterprise Standard
Iron	≤ 10ppm	Enterprise Standard
Heavy metals		
Heavy Metals	10ppm max	GB T5009
Lead	≤ 3.0 ppm	GB T5009.12 - 2017
Arsenic	≤ 1.0 ppm	GB T5009.11 – 2014
Cadmium	≤ 1.0 ppm	GB T5009.15 – 2014

Mercury	≤ 0.1 ppm	GB T5009.17 - 2014
Microorganism		
Total Plate Counts	≤1000cfu/g	GB 4789.2 – 2016
Total Molds & Yeasts	≤100 cfu/g	GB 4789.15 – 2016
E.Coli	Negative/g	GB 4789
Salmonella	Negative/g	GB 4789
Staphylococcus aureus	Negative/g	GB 4789
Storage & Shelf Life		
Package	5kgs/tin, 10kgs/carton	
Shelf life	36 months(unopened packaging)	
Storage	Store in a ventilated, dry place, off the ground and away from the wall, and not mixed with toxic, harmful, odorous, volatile, and corrosive items	

2.Origin & ingredient

Country of origin of the product: China Origin statement: available ☒

This product is a pure material ☒		This product is a compound material ☐	
Animal origin	☐bovine	Specific Source: /	
	☐porcine	Specific Source: /	
	☐ovine	Specific Source: /	
	☐Others:	Specific Source: /	
Synthetic	☐	Starting material:	origin: /
Biotechnological processing	☐ Catalysis By Enzymes	Name Of Enzyme: / Sources Of Enzymes: /	
	☒ Fermentation	Source Of Medium: / Strain: Bacteria	
Botanical Origin	Botanical Name:	/	
	Part:	/	
	Wild Or Cultivated:	/	
	Country Of Origin:	/	
	Solvent Used:	/	

For compound material, all compounds are listed (e.g. antioxidants; coating materials and with their functions):

Each ingredient including food additives	**Percentage %**	**Function (e.g. Nutrient, Binder, Diluent, carrier)**	**Source Material(s)**	**Country of Origin of the Source Material**
Hyaluronic Acid	100%	Nutrient	Bacteria	China
Remarks:	Compounds may change according to customized formula from customer			
Processing aid used ☐				

Name of processing aids:	Purpose:	Source:
/	/	/

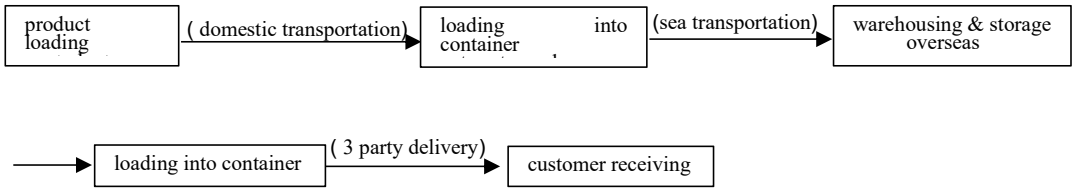
3.Nutrition Data	
Nutritional Composition	☒Per 100g ☐Per Serving
☒Energy(Kj) ☐ Energy(Kcal)	1261
Fat(G)	0
Carbohydrates(G)	75.4
Protein(G)	0.03
Sodium (G)	0

4.Manufacture Details		
Manufacturer Name:	Qingdao Acerbio Technology Ltd	
Address:	Tianmu Road, Laiyang Development District, Yantai, Shandong	
Main Products:	Fermentation Products including Coenzyme Q10, Hyaluronic Acid, L-Ergothioneine	
Capacity Of Production	200mt per year	
Number Of Employees in Production: 40		Number Of Employees in QA / QC.:12
Quality And Food Safety Management System Certificated By Accredited Authority. E.G.: ISO Series, GFSI Series HACCP GMP、CGMP FAMI-QS、GMP+	ISO9001 Series: ☐ISO9001 ☐ISO22000 ☐ISO14001 ☐ISO45000 GFSI Series: ☒BRC ☐FSSC22000 ☐ IFS ☐SQF ☐GMP ☐HACCP ☐FAMI-QS ☐GMP+	
Product Related Certificates	☒HALAL ☐KOSHER ☐IP ☐ORGANIC	
Suitable For Vegan	☒YES ☐NO	
We Confirm Above Mentioned Certificates Or Related Statement And Keep Available	☒	

5.Process quality and food safety	
Flow chart: This product specification has listed the detailed process flow chart of each step of the actual production process from raw material pretreatment to finished product warehousing, including possible additives, processing aids, steps to remove foreign matters, CCP, water used, compressed air etc.	Integrity flow chart available ☒

CCP in place		
CCP info.	CL	Location in process

Foreign body control	
Have implemented control procedures for glass, fragile plastic materials	☒

Pest control	
Conducted by manufacturer:☒ by external contractor☐ Name of contractor:	
Batch no.& traceability	
Batch size:	500kgs
Batch definition:	Signification of the batch no. by an example: In 78909301. If you subtract 7，8，9，0，9 and 3, you get the last two digits of the year, month, and date in the production date, such as 2021/09/06, that is the production date. 01 is the batch number of the production on that day
We confirm that we perform batch and traceability management on the whole process from raw material receiving, production process, storage and transportation, by focusing on raw materials, semi-finished products, production processing and transportation, related records and product labels. Take traceability exercise on a annual basis.	
Supply chain custody	
list all the stages in the process of supply chain including detail of every link back to farm, field or ocean. Every time the raw material is moved, paid for, handled, stored or processed, and final to customer 	

6. GMO declaration	YES	NO
The product does not contain or consist of GMO	☐	☒
The product is not produced from GMO or not contain ingredients produced from GMO (irrespective of whether there is NDA or protein of GM origin in the final production)	☐	☒
This product is not produced by means of GM microorganism including precursor substances, e.g. with GMOs or Genetically Modified microorganisms processing aids(bacteria, yeast,..)	☐	☒
This product is not produced with the help of enzymes, which were obtained from GMOs	☐	☒
Does the product contain any ingredients from animal? If yes, are genetically modified crops contained in the feed for the animal?	☐ ☐	☒ ☒
We confirm that this product complies with regulations EC/18292003 and EC1830/2003 and keep NON-GMO statement available		☒

7.Allergen declaration

We have carefully reviewed this product according to According Annex II of Reg. (EU)1169/2011 as amended by Reg. (EU) 78/2014 as regards indication of ingredients present in foodstuffs and confirm the following:

	Direct incorporation as a base raw material or in a derivative form	CROSS CONTAMINATION

	(don't forget the carriers, the additives and the processing aids)		Presence on the production line		Presence on the production workshop		Presence on the production factory	
	Yes (precise nature)	No	Yes (precise the nature)	No	Yes (precise the nature)	No	Yes (precise the nature)	No
Cereals containing gluten(1) and products thereof		N		N		N		N
Crustaceans and products thereof		N		N		N		N
Eggs and products thereof		N		N		N		N
Fish and products thereof (2)		N		N		N		N
Peanuts and products thereof		N		N		N		N
Soybeans and products thereof (3)		N		N		N		N
Milk and products thereof (including lactose)(4)		N		N		N		N
Nuts (5) or products thereof		N		N		N		N
Celery and products thereof		N		N		N		N
Mustard and products thereof		N		N		N		N
Sesame seeds and product thereof		N		N		N		N
Sulphur dioxide and sulphites at concentrations of more than 10mg/kg or 10 mg/l expressed as SO2		N		N		N		N
Lupines and products thereof		N		N		N		N
Mollusc and product thereof		N		N		N		N

(1) Cereals which contain gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) except: wheat-based glucose syrups including dextrose, wheat-based maltodextrins, glucose syrups based on barley, cereals used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

(2) Except: fish gelatine used as carrier for vitamin or carotenoid preparations, fish gelatine or Isinglass used as fining agent in beer and wine;

(3) Except fully refined soybean oil and fat, natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, natural D-alpha tocopherol succinate from soybean sources; vegetable oils derived phytosterols and phytosterol esters from soybean sources; plant stanol ester produced from vegetable oil sterols from soybean sources;

(4) Except when used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages, lactitol;

(5) almond (Amydalus communis L.) hazelnuts (Corylus avellana), walnut (Juglans regia), cashew (Anacardium occidentale), pecan nuts (Carya illinaiesis), brazil nut (Bertholletia excelsa), pistachio nut (Pistacia vera), macadamia nut and queensland nut (Macadamia terniflora) and products thereof, except nuts used for making distillates or ethyl alcohol of agricultural origin for spirit drinks and other alcoholic beverages;

8.NON IRRAIDATION (According to EU directive 1999/2/EC & 1999/3/EC)		
This product has not been treated with ionising radiation	☐YES	☒NO
None of the raw materials we used for this product have been treated with ionising radiation.	☐YES	☒NO
We confirm above Non-Irradiation statement is available	☒	

9.NANOMATERIAL (according to EU Regulation (EU) No. 1169/2011)		
This product does not contain any nanomaterials as defined in EU food	☐YES	☒NO

legislation		
This product has not been made with nanotechnology	☐YES	☒NO
We confirm above Non-Nanomaterial statement is available	☒	

10. Residual solvents (according to UE Directive 2009/32 modified by(UE)2010/59; EP5.4;USP476;ICH Q3C(R7))	
For this product following solvents are used during production process: Solvent A: max residual level:	☒solvent used ☐solvent not used
We confirm solvent residual of this product complies with:	☒EP5.4 ☒USP <476> ☒ICH Q3C(R7) ☐Directive 2010/59/EU ☒NA
We confirm Solvent residual statement is available	☐

11.Pesticide residual (according to EC 396/2005; EP07; USP <561>)	
This product is of vegetable origin	☒YES ☐NO
We confirm pesticide residual of this product complies with:	☒EC 396/2005 ☒EP 07/2008 ☒USP<561> ☐N/A
Pesticide residual statement available	☐

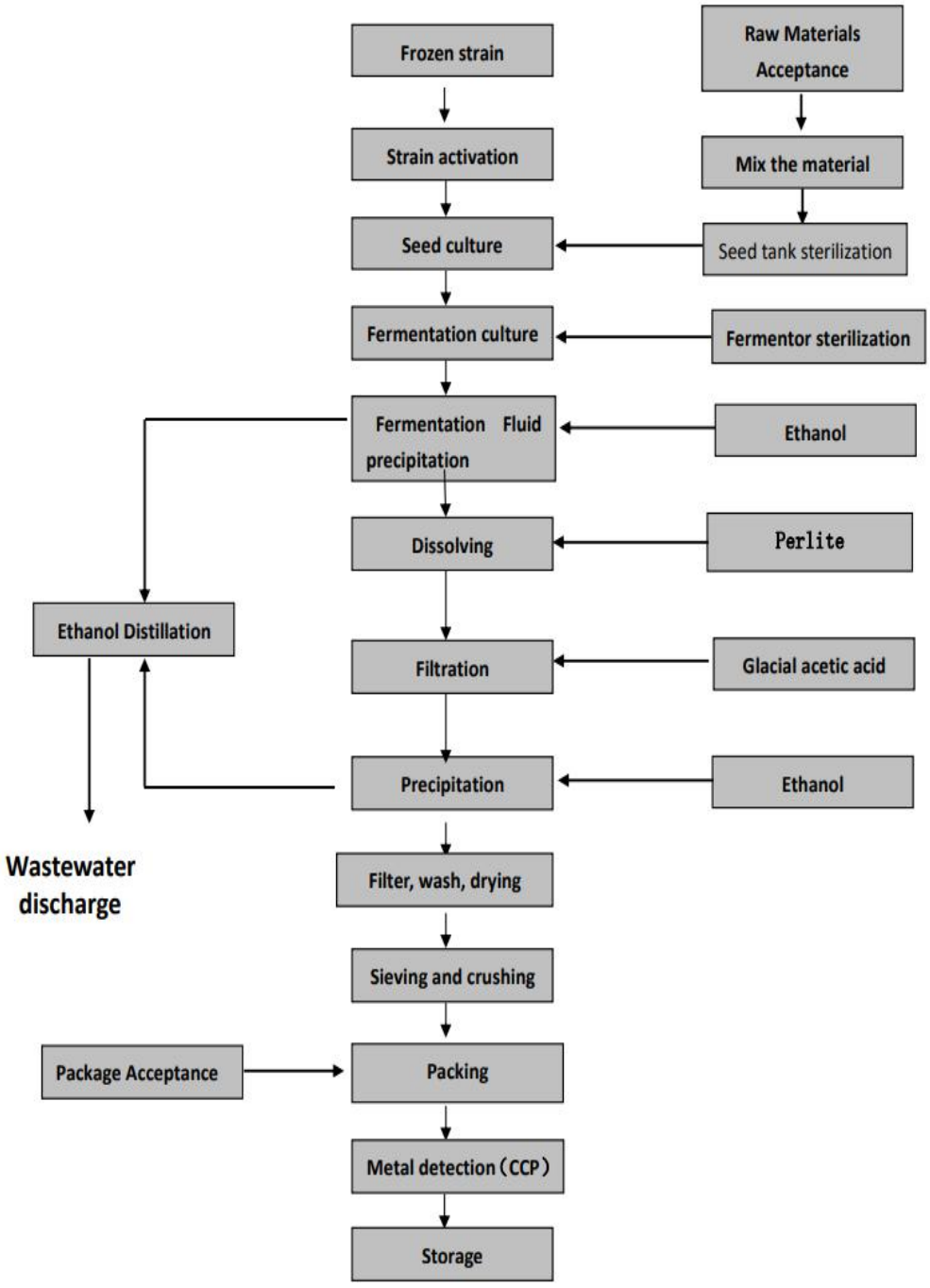
12.BSE/TSE information (according to EU legislation 999/2001; EP general chapter 5.2.8)	
Cattle, sheep, goats and animals that are naturally susceptible to infect with transmissible spongiform encephalopathy agents or susceptible to infection through the oral route other than humans and non-human primates are defined as “ESE-relevant animal species Pigs ad birds are not naturally susceptible to infection via the oral route; therefore, they are not TSE-relevant animal species. Dogs, rabbits and fish are not TES-relevant animal species.”	
the product contains no ingredients of ruminant origin and no materials derived from, or exposed to ruminants affected by or under quarantine for Transmitting Transmissible Spongiform Encephalopathy (TSE) / Bovine Spongiform Encephalopathy (BSE)	☐YES ☒NO ☐NA
In the manufacturing of this product, there is no any raw or source material and /or reagent used that is of animal origin i.e. bovine, serum-albumin, enzymes, culture broths including those used to prepare working or master cell tanks	☐YES ☒NO
Equipment/systems/tools use for processing or storage of the material	☐YES

do not come into contact at any time with materials of animal origin (e.g., components of media filler used to check such system)	☒NO
The material is not purified by using solvents, chromatographic media or buffers that contain components of animal origin	☐YES ☒NO
We confirm this product complies with:	☒ EU legislation 999/2001 & ☐ EP general chapter 5.2.8
We confirm BSE/TSE statement is available	☒YES

13.Contaminants information (according to UE regulation NO.1881/2006 and NO.629/2008 as regards maximum levels for certain contaminants in foodstuff)	
●Aflatoxin B1 <5ppb ●Aflatoxins B1 + B2 + G1 + G2 <10ppb ●Ochratoxin A <15ppb	☐YES ☒NO ☒NA
●Melamine	☐YES
For polycyclic aromatic hydrocarbons, in cocoa fibre, banana chips, food supplements and their preparations, dried herbs *and dried spices*: ●Maximum level of 10 µg/kg of benzo(a)pyrene ●50 µg/kg for the sum of PAH4 (PAH4; benzo[a]pyrene,chrysene, benz[a]anthracene and benzo[b]fluoranthene) in food supplements	☐YES ☒NO ☒NA
We confirm this product complies with NO.1881/2006 and NO.629/2008 and keep compliance statement available	☐YES

ACERBIO

Flow Chart of Hyaluronic Acid



Material Safety Data Sheet (MSDS)

Hyaluronic Acid

1. PRODUCT IDENTIFICATION

Product Name: Hyaluronic Acid

INCI Declaration: Hyaluronic Acid

CAS Number: 9004-61-9

2. PHYSICAL & CHEMICAL PROPERTIES

Melting Point: no data available

Boiling Point: no data available

Vapor Pressure: no data available

Vapor Density: no data available

Particle Size: 80mesh

Density: about 0.5g/ml

Solubility in water: Sparingly soluble or soluble in water, practically insoluble in acetone and in anhydrous ethanol

pH Value: 6.0-7.5

Appearance & Odor: white or almost white very hygroscopic

3. STABILITY & REACTIVITY

Reactivity: no data available

Chemical stability: Stable under normal storage and operating conditions at room temperature or in a closed container.

Possibility of hazardous reactions: no data available

Conditions to avoid: Avoid exposure to sunlight, avoid contact with open flames and high heat; do not store in the same place as toxic, harmful, odorous, volatile, and corrosive items.

Incompatible materials: Avoid mixing with substances that are prone to decomposition and denaturation, such as strong oxidizing agents, strong reducing agents, cationic surfactants, strong acids, and strong alkalis.

Hazardous decomposition products

Other decomposition products - no data available.

4. HANDLING & STORAGE

Provide appropriate exhaust ventilation at places where dust is formed.

Store in a ventilated, dry place, off the ground and away from the wall, and not mixed with toxic, harmful, odorous, volatile, and corrosive items.

5. ACCIDENTAL RELEASE MEASURES

Avoid breathing vapors, mist or gas.

When the product leaks, collect spills and clean it to restore the environment. Collect and treat the collected leaks as general waste.

Adsorbed with sand or other non-combustible adsorbent, collected in a container and processed.

6. EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU)

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 (Without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

7. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]. This substance is not classified as dangerous according to Directive 67/548EEC

Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

Hazard statement(s)

This substance is not classified as dangerous according to Directive 67/548/EEC.

Precautionary statement(s)

Not available

8. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with 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.

9. FIRE FIGHTING MEASURES

Extinguishing media/ Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Special hazards arising from the substance or mixture

Combustion forms carbon oxides, namely carbon dioxide and carbon monoxide.

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

no data available

10. TOXICOLOGICAL INFORMATION

Information on toxicological effects

The toxicological properties of this material have not been fully investigated.

Acute toxicity

no skin irritation or corrosion

Skin corrosion/irritation

no skin corrosion/irritation

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no germ cell mutagenicity and teratogenicity

Germ cell mutagenicity

no data available

Carcinogenicity

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Aspiration

no data available

Additional Information

RTECS: Not available.

11. DISPOSAL CONSIDERATIONS

Nature of waste

Industrial waste: yes; hazardous waste: not

Waste disposal methods

No special treatment, incineration or burial as required.

Waste disposal precautions

According to local and national regulations, the specific treatment methods can be consulted with the local environmental protection department.

12. TRANSPORT INFORMATION

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous good

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

Special precautions for user

no data available.

13. DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company s knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.