



## SECTION 1. Identification of the substance/mixture and of the company/enterprise

### 1.1. Product identifier

Product name : ITTIOSOL  
Product code: refer to sales department

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Clarifying Agents  
Sectors of use:  
Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]  
Product category:  
Process aid for enological use  
Not recommended uses  
Do not use for purposes other than those listed

### 1.3. Details of the supplier of the safety data sheet

AEB BIOCHEMICAL USA  
111 N Cluff Avenue  
Lodi CA 95240 (USA)  
Tel: +1 2096258139 Fax: +1 2092248953  
Email: [info@aebusa.com](mailto:info@aebusa.com) - Internet: [www.aeb-group.com](http://www.aeb-group.com)

Produced by  
AEB SpA  
Via Vittorio Arici 104 S. Polo  
25134 Brescia

### 1.4. Emergency telephone number

Centralino/Switchboard/Telefonzentrale: +1 2096258139

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

None

Hazard Class and Category Code(s):

Non hazardous

Hazard statement Code(s):

Non hazardous

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

None

Hazard statement Code(s):

Non hazardous

Supplemental Hazard statement Code(s):

EUH031 - Contact with acids liberates toxic gas.

Precautionary statements:



None in particular.

Contains:

FISH GELATIN - (<Fish and products thereof except (b) fish gelatine or Isinglass used as fining agent in beer and wine>in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications), CITRIC ACID, POTASSIUM BISULPHITE - (<Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO<sub>2</sub>>in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications), ASCORBIC ACID

Only for professional use

For limited use in foodstuffs: enological use

### 2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

## SECTION 3. Composition/information on ingredients

### 3.1 Substances

Irrilevant

### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
FISH GELATIN	> 20 <= 30%					
CITRIC ACID MONOHYDRATE	> 5 <= 10%	Eye Irrit. 2, H319		5949-29-1	201-069-1	01-2119457 026-42-XXX X
POTASSIUM BISULPHITE	> 0,1 <= 1%	Eye Irrit. 2, H319		7773-03-7	231-870-1	
ASCORBIC ACID	> 0,1 <= 1%			50-81-7	200-066-2	

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

### 4.2. Most important symptoms and effects, both acute and delayed

No data available.



#### **4.3. Indication of any immediate medical attention and special treatment needed**

No data available.

### **SECTION 5. Firefighting measures**

#### **5.1. Extinguishing media**

Suggested extinguishing media:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

#### **5.2. Special hazards arising from the substance or mixture**

No data available.

#### **5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

### **SECTION 6. Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear gloves and protective clothing

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

#### **6.2. Environmental precautions**

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

#### **6.3. Methods and material for containment and cleaning up**

6.3.1 Containment:

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

#### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information



## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact and inhalation of vapors  
At work do not eat or drink.  
See also paragraph 8 below.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

### 7.3. Specific end use(s)

Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources.

Manufacture of food products:

Handle with care.

Store in a clean, dry, ventilated area away from heat and direct sunlight.

Keep container tightly closed.

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

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Related to contained substances:

CITRIC ACID MONOHYDRATE:

Contains no substances with occupational exposure limit value

POTASSIUM BISULPHITE:

TLV STEL: 0.25 ppm (SO<sub>2</sub>)

- Substance: CITRIC ACID MONOHYDRATE

PNEC

Sweet water = 0,44 (mg/l)

sediment Sweet water = 3,46 (mg/kg/sediment)

Sea water = 0,044 (mg/l)

sediment Sea water = 34,6 (mg/kg/sediment)

ground = 33,1 (mg/kg ground)

### 8.2. Exposure controls



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (spectacles cage) (EN 166).

(b) Skin protection

(i) Hand protection



When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

When handling the pure product wear full protective skin clothing.

(c) Respiratory protection

Not required when proper ventilation is provided. Alternatively use protective mask

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

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Related to contained substances:

CITRIC ACID MONOHYDRATE:

Eye protection:

Use protective visors closed, do not use eye lenses.

Skin protection:

Wear clothing that guarantee full protection for the skin, eg. cotton,

Rubber, PVC or viton.

Protection of hands:

Use protective gloves that provide for full protection, eg. PVC, neoprene or rubber.

Respiratory protection:

Where possible, install sources of local exhaust ventilation and air exchange systems general.

If these measures are not sufficient to maintain concentrations of vapors below exposure limit, you will need to make use of appropriate respiratory protection tract.

Thermal Hazards:

no

Environmental exposure controls:

no

POTASSIUM BISULPHITE:

Eye protection: safety goggles. Use closed safety masks, do not use eye lenses.

Skin protection: Wear clothing granting a total protection of the skin, eg. cotton, rubber, PVC or viton.

Hand protection: Use protective gloves granting a total protection, e.g. in PVC, rubber or neoprene.

Respiratory protection: where there is inadequate ventilation or prolonged exposure, employ a device for the respiratory protection, e.g. CEN/FFP-2 (S) or CEN/FFP-3 (S).

Thermal hazards: none

Environmental exposure controls: none

ASCORBIC ACID:

Technical protective measures

Ventilate working environments. Dust collection system. Avoid the accumulation of electrostatic charges.

Exposure limit values

Not applicable

Individual protections

Goggles:

PVC/rubber gloves: -request the manufacturer break times and 374/EN permeation part III)

Dust mask:

Eye rinse bottle with pure water.

General protective regulations and labour hygiene

Do not eat, drink or smoke when handling.

Wash hands thoroughly after work and change clothes.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Light yellow liquid	



Physical and chemical properties	Value	Determination method
Odour	not determined	
Odour threshold	not determined	
pH	5,0 ± 0,5 (sol 1%; 20°C)	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	not determined	
Flash point	irrelevant	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	irrelevant	
Upper/lower flammability or explosive limits	irrelevant	
Vapour pressure	irrelevant	
Vapour density	irrelevant	
Relative density	1,15 ± 0,5 (20°C)	
Solubility	in water	
Water solubility	miscible	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	irrelevant	
Decomposition temperature	irrelevant	
Viscosity	not determined	
Explosive properties	irrelevant	
Oxidising properties	irrelevant	

## 9.2. Other information

No data available.

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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Related to contained substances:

FISH GELATIN:

No

CITRIC ACID MONOHYDRATE:

Stable under normal conditions

POTASSIUM BISULPHITE:

Stable under normal conditions

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

There are no hazardous reactions



**10.4. Conditions to avoid**

Nothing to report

**10.5. Incompatible materials**

None in particular.

**10.6. Hazardous decomposition products**

Does not decompose when used for intended uses.

**SECTION 11. Toxicological information**

**11.1. Information on toxicological effects**

ATE(mix) oral = ∞

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: CITRIC ACID MONOHYDRATE: Test: LD50-route: oral-species: Rat = 5400 mg/kg-source: Study report 1981 (ECHA)

-Note: OECD Guideline 401

Test: LD50-route:-species: rat > 2000 mg/kg-source: Study report 2006 (ECHA)

-Note: OECD Guideline 402

(b) skin corrosion/irritationCITRIC ACID MONOHYDRATE: Test: irritating to skin-species: rabbit No-source: Study report 1990 (ECHA)

-Note: in vivo, OECD Guideline 404

(c) serious eye damage/irritation: CITRIC ACID MONOHYDRATE: Test: irritating to eyes-species: rabbit Yes-source: Carpenter et al. (1946)

(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.

(e) germ cell mutagenicity: CITRIC ACID MONOHYDRATE: Test: genotoxicity-species: rat No-source: 1975-Note: in vivo Study report,

OECD

Guideline 475

(f) carcinogenicity: CITRIC ACID MONOHYDRATE: Test: Carcinogenicity data not available

(g) reproductive toxicity: CITRIC ACID MONOHYDRATE: Tests: reproductive toxicity No-source: Wright, Hughes 1976 (ECHA)

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.

(j) aspiration hazard: based on available data, the classification criteria are not met.

Health Hazards:

Eye contact: Accidental contact of product with eyes may cause irritation.

Skin Contact: Product is not an irritant. Prolonged or repeated contact may defeat and irritate the skin and cause dermatitis in some cases.

Ingestion: The ingested product may cause irritation of the mucous membranes of the throat and digestive system leading to digestive symptoms and abnormal bowel disorders.

Inhalation: Prolonged exposure to vapours or mists of product may cause respiratory irritation.

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Related to contained substances:

CITRIC ACID MONOHYDRATE:

500 mg skin irritation/rabbit: 12:0 am moderate

Rabbit eye irritation 750 microg/24: severa

LD50 (rat) Oral (mg/kg body weight) = 5400



LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

ASCORBIC ACID:

May cause eye irritation.

May cause irritation to the skin especially when dampness

May cause irritation to mucous membranes 4-12 g/day may cause urinary stones in predisposed individuals.

Mutagenic not, carcinogenic, teratogenic and embryotoxic oral doses of 9 g/day do not produce toxic effects, although less may cause diarrhea.

RDA: 60 mg

GRAS

LD50 (oral, rat): 11900 mg/kg

LD50 (oral, rat): 8000 mg/kg

## SECTION 12. Ecological information

### 12.1. Toxicity

Use according to good working practices and avoid to disperse the product into the environment.

Related to contained substances:

FISH GELATIN:

Non-toxic

CITRIC ACID MONOHYDRATE:

Acute aquatic toxicity:

Endpoint: LC50-species: Fish = 440 mg/l

Endpoint: LC50-species: Daphnia = 1535 mg/l-h Duration: 24-Note: ECHA

Endpoint: NOEC-species: algae = 425 mg/l-notes: 8 d. (nominal)

cell density

C(E)L50 (mg/l) = 440

NOEC (mg/l) = 425

POTASSIUM BISULPHITE:

Use according to good working practices, avoiding to disperse the product into the environment.

ASCORBIC ACID:

Toxic for fish

LC50 (rainbow trout .96 h): 1020 mg/l (OECD No203)

### 12.2. Persistence and degradability

Related to contained substances:

FISH GELATIN:

Totally biodegradable

CITRIC ACID MONOHYDRATE:

Biodegradability: inherently biodegradable-Test: DOC-runtime: N.A.-%: 667-

Notes: N.A.

Biodegradability: N.A. Test: BOD5/DOC-runtime: N.A.-%: 72-Note: 5 days

Biological degradability: readily biodegradable Test: DOC-runtime: N.A.-%: 85-Note:%

14 d

POTASSIUM BISULPHITE:

None

ASCORBIC ACID:

100%, 15 days (Zahn-Wellens test, OECD No. 302B)

### 12.3. Bioaccumulative potential

Related to contained substances:

CITRIC ACID MONOHYDRATE:

Not bioaccumulative-Test: N.A. N.A.-duration: N.A.-Notes: N.A.

POTASSIUM BISULPHITE:

None





#### **12.4. Mobility in soil**

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Related to contained substances:

CITRIC ACID MONOHYDRATE:

Out of stock-Test: N.A. N.A.-duration: N.A.-Notes: N.A.

POTASSIUM BISULPHITE:

None

#### **12.5. Results of PBT and vPvB assessment**

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

#### **12.6. Other adverse effects**

No adverse effects

### **SECTION 13. Disposal considerations**

#### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

### **SECTION 14. Transport information**

#### **14.1. UN number**

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

#### **14.2. UN proper shipping name**

None

#### **14.3. Transport hazard class(es)**

None

#### **14.4. Packing group**

None

#### **14.5. Environmental hazards**

None

#### **14.6. Special precautions for user**

No data available.



#### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code**

Transport in bulk is not foreseen

### **SECTION 15. Regulatory information**

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

Leg. 3/2/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Decree No. 14/3/2003. 65 (Classification, packaging and labeling of dangerous substances). Leg. 2/2/2002 n. 25 (risks related to chemical agents at work). Ministerial Decree Jobs 26/02/2004 (occupational exposure limits); DM 04/03/2007 (Implementation of Directive no. 2006/8/EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP), Regulation (EC) n.790/2009.D.Lgs. September 21, 2005 n. 238 (Seveso Directive Ter).

#### **15.2. Chemical safety assessment**

Chemical safety assessment was carried out by the supplier

### **SECTION 16. Other information**

#### **16.1. Other information**

Description of hazard statements set out in paragraph 3

H319 = Causes serious eye irritation.

Classification based on data of all mixture components

Main normative references:

Directive 1999/45/EC.

Directive 2001/60/EC.

Regulation 1272/2008/EC.

Regulation 2010/453/EC.

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

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Changes to the previous edition: conformity Reg. 830