SAFETY INFORMATION

1 - IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY :

• USES OF THE SUBSTANCE :
The collagen is mainly used in food, pharmaceutical or cosmetics applications.

2 - HAZARDS IDENTIFICATION :
The collagen is not classified as hazardous substance following european regulation.

• MOST IMPORTANT ADVERSE HUMAN HEALTH AND ENVIRONMENTAL EFFECTS : none
• OTHER HAZARDS : none

3 - COMPOSITION / INFORMATION ON INGREDIENTS :

  - COLLAGEN 100 %
  - Dehydrated substance of animal protein type
  - Substance exempted from registration following regulation 1907/2006/EC (REACH)
  - N° EINECS : 270-082-2
  - N° CAS : 68410-45-7
  - Hazard contributing ingredients : none

4 - FIRST AID MEASURES :
Non-toxic powder / microgranulates, neither through eye nor skin contact, nor by inhalation or ingestion. Slightly sticky, it can be removed by rinsing with warm water.

5 - FIREFIGHTING MEASURES :
• SUITABLE EXTINGUISHING MEDIA :
All media such as water, powders, or foams, without any other hazards, methods or specific protection, as in the case of a classic fire extinguishment.

E-MAIL ADDRESS OF THE REACH RESPONSIBLE IN THE COMPANY : camille.maffre@weishardt.com

EMERGENCY TELEPHONE NUMBER :
- The above-mentioned phone numbers for the 2 plants are usable during working hours
- The national emergency phone numbers are available under the following link :
6 - ACCIDENTAL RELEASE MEASURES :

- PERSONAL PRECAUTIONS : no specific precaution.
- ENVIRONNEMENTAL PRECAUTIONS : no specific precaution.
- METHOD FOR CLEANING UP : rinsing with water or incineration.

7 - HANDLING AND STORAGE :

- HANDLING :
  - Technical measures : to be handled in its original packaging.
  - Precautions : pour slowly to avoid formation of dust (non - toxic).
  - Safe handling advice : incompatible materials : none.

- STORAGE :
  - Technical measures : keep in its original packaging to protect from moisture.
  - Suitable storage conditions : keep in a closed and dry place, and at room temperature.
  - Storage conditions to be avoided : outdoors (product deterioration).
  - Incompatible products : none.
  - Recommended packaging materials : bags with a polyethylene inner lining.
  - Unsuitable packaging materials : all packaging that does not protect the product from moisture and external contamination.

8 - EXPOSURE CONTROL / PERSONAL PROTECTION :

- OCCUPATIONAL EXPOSURE CONTROL : no specific individual protection equipment.
- ENVIRONMENTAL EXPOSURE CONTROL : no specific equipment.
- No chemical safety report required following regulation.
- SPECIFIC HYGIENE MEASURE : any measure needed for handling of edible products.

9 - PHYSICAL AND CHEMICAL PROPERTIES :

- PHYSICAL APPEARANCE : powder / microgranulates
- COLOUR :  dry : white
- in solution : uncoloured to pale yellow
- ODOR : neutral
- pH at 1% concentration : 4,0 to 7,0
- MELTING POINT at 10% concentration : ambient temperature
- DECOMPOSITION TEMPERATURE : carbonization at 150°C
- FLASHPOINT : 255°C
- AUTOIGNITION TEMPERATURE : > 500° C
- EXPLOSION PROPERTIES : very low explosivity (ST1)
- DENSITY : 0,2 to 0,5 kg/liter depending on granulometry
- SOLUBILITY : soluble in aqueous liquid medium
10 - STABILITY AND REACTIVITY:

• STABILITY:
  Recommended conservation: 5 years. However, because of its low residual moisture content, collagen can be kept for a nearly unlimited period of time, if stored in the original unopened packaging in a dry place protected from humidity.

• HAZARDOUS REACTIONS: none.

• HAZARDOUS DECOMPOSITION PRODUCTS: by pyrolysis: none.

11 - TOXICOLOGICAL INFORMATION:

• TOXICITY (acute effects, sensibilisation effects or repeated dose toxicity): none.
• CMR EFFECTS (carcinogenic, mutagenic or toxic for reproduction): none.

12 - ECOLOGICAL INFORMATION:
Collagen is 100% biodegradable. Degradation of collagen in soil or water results in nitrogen presence.

• ENDOTOXICITY:
  No aquatic toxicity. Nitrogen coming from gelatine degradation is eliminated using classical waste water treatment equipments.
• MOBILITY: soluble in water at ambient temperature.
• PERSISTENCE AND DEGRADABILITY: biodegradability: 100%.
• BIOACCUMULATIVE POTENTIAL: none.
• PBT ASSESSMENT RESULTS: none.
• OTHER ADVERSE EFFECTS: none.

13 - DISPOSAL CONSIDERATIONS:

• DISPOSAL:
  Residues or waste disposal do not present any hazard. Landfilling or incineration of powder / microgranulates residues. Water rinsing, and sewage disposal of liquid residues.
• SOILED PACKAGING: recycling, incineration or landfilling possible.

14 - TRANSPORT INFORMATION:

• INTERNATIONAL REGULATION:
  Non hazardous product, not codified or classified. Regulation on carriage of dangerous goods is not applicable.

15 - REGULATORY INFORMATION:
Chemical safety assessment is not applicable to collagen and has not been done. Collagen is not classified as an hazardous substance regarding European regulation. Product conform to current standards in the countries of destination.

16 - OTHER INFORMATION:
None.