

## Material Safety Data Sheet

According to 1907/2006, Article 31

**Trade Name: Xantho-Flav Extract 8 – 15 %**

Printing date: 02/02/2011

Revision: 25.08.2009

### 1 Identification of substance / preparation and of the company / undertaking

#### Product details:

**Trade name: Xantho-Flav Extract, Xantho-Flav Extract 8 – 15 %****Application of the substance / the preparation:** Food additive, dietary supplement for functional food and functional drinks, additive for beverages, basic material for the pharmaceutical industry

#### Supplier/Manufacturer:

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### 2 Hazards identification

**Hazard description:** not applicable

#### Information pertaining to particular dangers for man and environment:

According to current European laws and regulations the product is not dangerous or toxic material (based on available data).

#### Classification system:

The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

### 3 Composition / Data on components

#### Chemical characterization

##### Description:

Hop extract containing 8 – 15 % xanthohumol; ethanol residues &lt; 0.5%.

**Dangerous components:** Void

### 4 First aid measures

#### General information:

No special measures required.

#### After inhalation:

Supply fresh air; consult doctor in case of complaints.

#### After skin contact:

Wash with water and soap.

#### After eye contact:

Rinse opened eye for several minutes under running water. Seek medical treatment.

#### After swallowing:

Rinse out mouth and then drink plenty of water. If symptoms occur or after swallowing of larger quantities consult a doctor.

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### Information for doctor:

**Treatment:** Symptomatic treatment

## 5 Fire fighting measures

### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

### Special hazards caused by the material, its products of combustion or resulting gases:

Dangerous decomposition product see chapter 10: stability and reactivity

**Protective equipment:** Wear self-contained respiratory protective device.

**Additional information:** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

### Person-related safety precautions:

Ensure adequate ventilation. Avoid formation of dust. Use respiratory protective device against the effects of fumes/dust/aerosol.

### Measures for environmental protection:

Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground / soil.

### Measures for cleaning/collecting:

Ensure adequate ventilation. Pick up mechanically. Send for recovery or disposal in suitable receptacles.

## 7 Handling and storage

### Handling

#### Information for safe handling:

Ensure good ventilation / exhaustion at workplace. Prevent formation of dust. Any deposit of dust which cannot be avoided must be regularly removed. Avoid inhalation of dust. Keep the working area dry and clean.

#### Information about protection against explosions and fires:

Dust can combine with air to form an explosive mixture. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

### Storage

#### Requirements to be met by storerooms and receptacles:

Store cool and dry.

#### Information about storage in one common storage facility:

Not required.

#### Further information about storage conditions:

Protect from humidity and water. Protect from contamination.

**Maximum storage temperature:** 5° C

**Minimum storage temperature:** 0° C

**Storage time:** Up to 2 years when stored correctly

**Storage class:** 11 Combustible solids

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### 8 Exposure controls and personal protection

**Additional information about design of technical systems:**

No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional Occupational Exposure Limit Values for possible hazards during processing:**

Observe general threshold limit for dust.

**Additional information:** The lists that were valid during the creation were used as basis.**Personal protective equipment****General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not inhale dust / smoke / mist.

Use skin protection cream for skin protection.

To avoid bacterial contamination it is recommended to use gloves and mask.

**Breathing equipment:** Not necessary if room is well-ventilated. At formation of dust: Dust protection mask**Protection of hands:** Protective gloves. After use of gloves apply skin-cleaning agents and skin cosmetics.**Material of gloves:** PVC or PE gloves. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.**Penetration time of glove material:** -**Eye protection:** Goggles recommended during refilling.**Body protection:** Protective work clothing.

### 9 Physical and chemical properties

**General Information**

**Form:** Powder  
**Colour:** Green  
**Odour:** Characteristic

**Value/Range Unit Method****Change in condition:****Melting point/Melting range:** undetermined**Boiling point/Boiling range:** not applicable**Flash point:** not applicable**Self igniting:** Product is not self-igniting.**Danger of explosion:** Product is not explosive. However, formation of explosive air/dust mixtures is possible.**Density:** Not determined**Solubility in / Miscibility with Water:** Insoluble

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**Additional information:** Soluble in ethanol. Soluble in isopropyl alcohol. The main substance of content xanthohumol has fungicide, antioxidant and bacteriostatic properties.

### 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications. Conditions to be avoided: see chapter 7

**Dangerous reactions:** As the product is supplied it is not capable of dust explosion; however, the risk of dust explosion cannot be excluded completely if the atmosphere is enriched with fine dust. Therefore avoid formation of dust!

**Dangerous products of decomposition:**

In the case of fire or at high temperatures the formation of the following decomposition products is possible. Carbon monoxide and carbon dioxide

### 11 Toxicological information

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

LD50/oral (rat): &gt; 2000 mg/kg

**Primary irritant effect:**

**on the skin:** No irritating effect.

**on the eye:** Eye irritation is possible after mechanical influence (dust).

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12 Ecological information

**Information about elimination (persistence and degradability):**

**Other information:** The product is biodegradable

**Ecotoxicological effects:**

**Aquatic toxicity:** Presently there are no ecotoxicological values available.

**General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

### 13 Disposal considerations

**Product:**

**Recommendation:** Disposal according to instructions of local authorities.

**European waste catalogue:** 02 03 99: wastes not otherwise specified

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**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

**Land transport ADR/RID (cross-border)****ADR/RID class:** No hazardous good according to the regulation.**Maritime transport IMDG:****IMDG Class:** No hazardous good according to the regulation.**Marine pollutant:** No**Air transport ICAO-TI and IATA-DGR:****ICAO/IATA Class:** No hazardous good according to the regulation.

### 15 Regulations

**Markings according to EC guidelines:**

Observe the general safety regulations when handling chemicals. The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

**Risk phrases:** R 36 Irritation to eyes**Safety phrases:**  
S 25 Avoid contact with eyes  
S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

### National regulations

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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