SAFETY DATA SHEET



Create Date: 2020-07-12

SECTION 1: COMPANY AND PRODUCT INFORMATION

1.1	Product identifiers			
	Product name	: Chlorogenic acid		
	Cat. Number	: ZXB-06-104		
	CAS number	: 327-97-9		
	Synonyms	: 1,3,4,5-Tetrahydroxy-cyclohexanecarboxylic acid 3-(3,4- dihydroxycinnamate)		
1.2	1.2 Relevant identified uses of the substance or mixture and uses advised against			
	Identified uses	: For research and laboratory use only.		
1.3	Details of the supplier of the safety data sheet			
	Address	: Hinter den Gärten 56		
		89173 Lonsee		
		Deutschland		
	Email	: info@zellx.de		
	Phone	: +49(0)731 55211521		
	Fax	: +49(0)731 55211719		
1.4	Emergency telephone number			

Emergency phone : +49(0)731 55211521

SECTION 2: HAZARDS IDENTIFICATION

2.1 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not classified as hazardous under the GHS.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance	CAS#	EC#	Concentration
Chlorogenic acid M.F: C ₁₆ H ₁₈ O ₉ M.W: 354.320 g/mol	327-97-9	206-325-6	-

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid

In case of inhalation

If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

In case of ingestion

Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

All known important symptoms are described in Section 2 and/or Section 11. No other important symptoms to report.

4.3 Indication of any immediate medical attention and special treatment needed

No special treatment indicated. Provide treatment in accordance with exhibited systems.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Conditions of flammability

Not flammable or combustible.

5.2 Suitable extinguishing media

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

5.3 Special hazards arising from the substance

During a fire, highly toxic gases may be generated by thermal decomposition or combustion

- Carbon oxides.

5.4 Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

For personal protection see section 8

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material, discard. For proper disposal see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling Always wear personal protective equipment. For precautions see section 2 & 8

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store at room temperature.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

This product is not known to contain any substances with occupational exposure limit values.

8.2 Engineering controls

This product is not known to contain any substances with occupational exposure limit values.

8.3 Personal protective equipment

- Eye/face protection : Use only conforming to EN166 safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection : Use gloves when handling product. Inspect gloves before use to ensure suitability for use. Remove without exposing skin to the gloves outer surface. Discard used gloves according to all pertinent laws and/or current good practices (cGXP). Wash hands with soap and water. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Body protection : Wear appropriate clothing. Ensure clothing is in good condition, with no holes or tears. When selecting clothing, consider the concentration and amount of substance to be handled.
- Respiratory protection : Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties			
a)	Appearance	:	Off white	
b)	Physical states	:	Solid (powder)	
c)	Odor	:	Not available	
d)	Odor threshold	:	Not available	
e)	Melting point	:	210°C	
f)	Boiling point range	:	Not available	
g)	Freezing point	:	Not available	
h)	рН	:	Not available	
i)	Flash point	:	Not available	
j)	Evaporation rate	:	Not available	
k)	Lower Explosion Limit	:	Not available	
	Upper Explosion Limit	:	Not available	
m)	Vapor pressure	:	Not available	
n)	Vapor density	:	Not available	
o)	Relative density	:	Not available	
p)	solubility	:	Soluble in warm water	
q)	Partition coefficient:	:	Not available	
	n-octanol/water			
r)	Autoignition temperature	:	Not available	
s)	Decomposition temperature	:	Not available	
t)	Viscosity	:	Not available	

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity is known.

10.2 Chemical stability

Product is stable when stored and used as recommended.

10.3 Condition to avoid

Incompatible materials.

10.4 Possibility of hazardous reactions

No hazardous reactions are known.

10.5 Incompatible materials

Strong oxidizing agents are incompatible with this product.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Acute toxicity Intraperitoneal : RAT LD50: 4000 mg/kg 11.2 Skin corrosion/irritation

No skin/corrosion irritation data available.

- **11.3 Respiratory or skin sensitization** No sensitization data available.
- **11.4 Germ cell mutagenicity** Hamster; ovary; Cytogenetic analysis.
- 11.5 Carcinogenicity

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH : No component of this product present at levels greater than or equal to 0.1%

is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP : No component of this product present at levels greater than or equal to 0.1%

is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA : No component of this product present at levels greater than or equal to 0.1%

is identified as a carcinogen or potential carcinogen by OSHA.

11.6 Reproductive toxicity

Developmental Toxicity-Rat-Intraperitoneal; Specific Developmental Abnormalities: Musculoskeletal system.

11.7 Specific target organ toxicity – single exposure

No specific organ toxicity data available.

11.8 Specific target organ toxicity – repeated exposure

No specific organ toxicity data available.

11.9 Aspiration hazard

No aspiration hazard data available.

11.10 Likely routes of exposure

Respiratory organs, mouth, skin, and eyes.

11.11 Symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.12 Additional information

RTECS: GU 8480000

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No toxicity data available.

12.2 Persistence and degradability

Inherent biodegradability.

- **12.3 Bioaccumulative potential** Does not bioaccumulate.
- **12.4 Mobility in soil** No soil mobility data available.
- 12.5 Other adverse effect

None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Recommendation

Dispose of product in accordance with local rules and regulations.

SECTION 14: TRANSPORTATION INFORMATION

14.1 DOT (US)

This material is considered to be non-hazardous for transport.

14.2 IMDG

This material is considered to be non-hazardous for transport.

14.3 IATA

This material is considered to be non-hazardous for transport.

SECTION 15: REGULATORY INFORMATION

15.1 SARA

SARA 302 Components SARA 302: This product and components are not subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards SARA 311/312: No SARA Hazard.

15.2 Right to know components

Massachusetts	: Chlorogenic acid, CAS No.: 327-97-9
Pennsylvania	: Chlorogenic acid, CAS No.: 327-97-9
New Jersey	: Chlorogenic acid, CAS No.: 327-97-9
California proposition 65 components	: This product contains no chemicals which are known to the State of California to cause cancer, or birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION

16.1 Disclaimer

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16.2 Preparation Information

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