


Safety Data Sheet:

Epigallocatechin Gallate

1. Identification of the Substance and the Manufacturer

1.1. Product identifiers

Product name	Epigallocatechin Gallate	Formula	C ₂₂ H ₁₈ O ₁₁
Product Code	EP	RTECS	KB5200000
CAS #	989-51-5	Molecular weight	458.40 g/mol
ECHA#	619-381-5	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> Chemical name: Epigallocatechol, 3-gallate Chemical name: [(2R,3R)-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)-3,4-dihydro-2H-chromen-3-yl] 3,4,5-trihydroxybenzoate Epigallocatechin 3-gallate Tea catechin Epigallocateic acid 		

Source	Extracted from Green Tea (leaves)	Version Date	29 January, 2025
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1.2. Intended uses of the Substance and uses advised against

1.2.1. Intended use:	1.2.2. Uses advised against:
Research and development. Laboratory reagent. Reference material. Manufacturing of substances. To be used by professionals only	Not a drug, Not a food additive Not to be used in humans or animals.

1.3. Contacts

1.3.1. Details of the supplier of the SDS
<div> FERMENTEK Ltd 4 Yatziv street, POB 47120 Jerusalem 97800, Israel </div> <div> Tel: +972 2 5853953 Fax: +972 2 5853943 eMail: Fermentek@Fermentek.com Safety@Fermentek.com Website: Fermentek.com </div>

This company is the manufacturer of the product and the supplier of the safety data sheet

1.3.2. Emergency Telephone number

For chemical emergency spill, leak, fire, exposure, or accident calls CHEMTREC day or night:
 Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887


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2. Hazards' identification

2.1. Classification of the Substance

2.1.1. GHS Classification: According to EU Reg. 1272/2008 and US OSHA 1910.1200)

Acute Toxicity, Ingestion	Cat.4	H302	Harmful if swallowed
Skin Irritation	Cat.1	H317	May cause an allergic skin reaction
Eye Irritation	Cat.2	H319	Causes serious eye irritation

2.2. GHS Label elements, including precautionary statements.

2.2.1. Pictogram: {  } Signal word: { Warning }

2.2.2. Hazard Statements

H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

GHS Precautionary Statements

P203	Obtain, read, and follow all safety instructions before use.
P261	Avoid breathing dust or mist.
P264	Wash {hands} thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection

2.2.3. GHS Response Phrases:

H303	P301+P317: IF SWALLOWED: Get medical help.
H317	P302+P352: IF ON SKIN: wash with plenty of water P333+P313: If skin irritation or rash occurs: Get medical help. P362+P364:
H319	P305+P351+P338: Take off contaminated clothing and wash it before reuse. P337+P317: If eye irritation persists: Get medical help.

3. Composition/information on ingredients

Substance	
Substance Name:	Epigallocatechin Gallate
Concentration	<=100%
CAS Registry#:	989-51-5
EC#:	619-381-5
Molecular Formula:	C ₂₂ H ₁₈ O ₁₁
Molecular Weight:	458.40 g/mol
Classification	Ac Tox. 4; Eye irr 2; Skin irr 1
Mixture?	Substance


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4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	First-aiders need to protect themselves. If medical attention is required, show this safety data sheet to the doctor in attendance.
Eye contact:	Rinse out with plenty of water. Remove contact lenses.
Skin Contact:	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Ingestion:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.
Inhalation:	If inhaled, move the person into fresh air.

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

General symptoms	None known
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	No data available
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5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	None known

5.2. Other information

Hazardous combustion products	Carbon oxides Formula C22H18O11
Advice for firefighters	Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.

6. Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

Personal precautions	Use personal protective equipment as required. Keep people away from and upwind of spill/leak.
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6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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6.3. Methods and material for containment and cleaning up

Methods for containment:	Prevent further leakage or spillage if safe to do so. Cover the powder spill with a plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up:	Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Cover liquid spill with sand, earth or other non-combustible absorbent material (e.g., sand, earth, diatomaceous earth, and vermiculite). Cover the powder spill with a plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.


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7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.
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7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at -20 °C.
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Suitable packaging	Must only be kept in original packaging.
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Incompatible materials:	None known based on information available.
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8. Exposure Controls/Personal Protection

8.1. Control parameters

Control parameters	Components with workplace control parameters
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8.2. Exposure controls

Appropriate engineering controls	Showers, Eyewash stations, Ventilation systems Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Use fume-hood for routine work.
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8.3. Personal protective equipment

[PPE=Personal Protection Equipment]

PPE: 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).
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PPE: Hand Protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands
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PPE: Eye Protection:	Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)
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PPE: Skin and Body 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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.
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9. Physical and chemical properties

9.1. Physical/chemical properties

Physical State at room temperature	Solid
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Appearance	Powder, White
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No further safety relevant data are available

10. Stability and reactivity

Reactivity:	No information available.
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Chemical stability:	Stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Sunlight.
Incompatible materials	Strong reducers and oxidizers
Possibility of Hazardous Reactions	None under normal processing
Hazardous combustion products	See section 5

11. Toxicological information

11.1. Information on toxicological effects

To the best of our knowledge, the toxicological effects of this product have not been thoroughly studied yet.

11.1.1. Acute Toxicity

Acute toxicity:	Oral, mouse; LD50 = 2170 On Skin, rat, LD50 > 1860 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization/corrosion:	No data available

11.1.2. Chronic toxicity

Chronic toxicity	No data available
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11.1.3. CRM (Carcinogene, Mutagene, Reproductive hazards)

Germ cell mutagenicity:	Mutagenicity has been reported in human cell cultures.
Carcinogenicity:	No data available
Reproductive toxicity / Teratogenicity:	Reproductive effects on newborn rats have been reported. Reproductive toxicity: - Effects on Newborn - viability index (e.g., # alive at day 4 per # born alive) Effects on Newborn - growth statistics (e.g.%, reduced weight gain)

11.2. Additional information

RTECS number	KB5200000
General symptoms	Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other oxidoreductases, - transaminases

12. Ecological Information

Eco-Toxicity	No data available
Other adverse effects	No data available

13. Disposal Considerations

13.1. Waste treatment methods

Waste Disposal	Dispose of in accordance with local regulations
Contaminated packaging	Dispose of as unused product

14. Transport information

14.1. UN Number, Proper Shipping Name, Transport Hazard Class, packing group

Notice: Some other authors claim this substance is ENVIRONMENTALLY HAZARDOUS. We could not find any supporting information for this claim.

	US DOT	ADR/RID	IATA	
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UN Number UN proper shipping name	Not hazardous goods (Epigallocatechin Gallate)	Not hazardous goods (Epigallocatechin Gallate)	Not hazardous goods (Epigallocatechin Gallate)	
Transport Hazard Class & Packing Group	Not hazardous goods (Epigallocatechin Gallate)	Not hazardous goods (Epigallocatechin Gallate)	Not hazardous goods (Epigallocatechin Gallate)	

15. Regulatory information

15.1. Safety, health, and environmental regulations/legislation

USA EPA / TSCA	This product is not listed on the USA EPA TSCA (it is for research)
Canada DSL/NDSL	Not on Domestic Substances List Not on Non-Domestic Substances List
EU ECHA Status	This product is registered with the EU ECHA, Number 619-381-5 REACH: PreRegistered ANNEX III (criteria for 1 - 10 tonne registered substances): Listed Reasons for listing: <ul style="list-style-type: none"> a) Suspected hazardous to the aquatic environment. b) Suspected mutagen. c) Suspected persistent in the environment. d) Suspected toxic for reproduction.

16. Other information

16.1. Department issuing this SDS.

Quality systems and regulatory affairs

16.2. General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.

The information given here is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification.

The 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 process, unless specified in the text.

16.3. The users'/employers' responsibility:

A risk assessment should be performed by the employer/user prior to the use of this product.

All recommendations included in this document, are advisory in nature.

The type of protective equipment must be selected based on the amount and concentration of all dangerous materials being used in the workplace.

16.4. No-Copyright statement

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16.5. Abbreviations and acronyms:

<i>Acute Tox.:</i>	<i>Acute toxicity</i>
<i>CAS:</i>	<i>Chemical Abstracts Service</i>
<i>DOT:</i>	<i>US Department of Transportation</i>
<i>EINECS:</i>	<i>European Inventory of Existing Commercial Chemical Substances</i>
<i>Eye Dam.:</i>	<i>Serious eye damage/eye irritation</i>
<i>HSDB</i>	<i>Hazardous Substances Data Bank</i>
<i>HMIS:</i>	<i>Hazardous Materials Identification System (USA)</i>
<i>IATA:</i>	<i>International Air Transport Association</i>
<i>IMDG:</i>	<i>International Maritime Code for Dangerous Goods</i>
<i>LC50:</i>	<i>Lethal concentration, Median</i>
<i>LD50:</i>	<i>Lethal dose median</i>
<i>LD50:</i>	<i>Lethal dose, Median</i>
<i>NDG</i>	<i>Not dangerous goods (for transport)</i>
<i>NFPA:</i>	<i>National Fire Protection Association USA</i>
<i>NIOSH:</i>	<i>National Institute for Occupational Safety</i>
<i>OSHA:</i>	<i>Occupational Safety & Health</i>
<i>PBT:</i>	<i>Persistent, Bioaccumulative, and Toxic</i>
<i>PEL: -</i>	<i>Permissible Exposure Limit</i>
<i>REL:</i>	<i>Recommended Exposure Limit</i>
<i>Repr.:</i>	<i>Reproductive toxicity</i>
<i>RTECS:</i>	<i>Registry of Toxic Effects of Chemical Substances</i>
<i>Skin Irrit:</i>	<i>Skin corrosion/irritation</i>
<i>STOT/SE</i>	<i>Specific target organ toxicity/Single exposure</i>
<i>STOT/RE</i>	<i>Specific target organ toxicity/Repeated exposure</i>
<i>TDL0</i>	<i>Toxic dose, least published</i>

16.6. End of SDS