

# Theaflavin

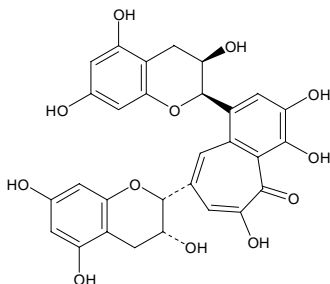
BLACK TEA EXTRACT

## SPECIFICATION SHEET

### Product Description

A patented black tea extract containing high concentrations of theaflavins, catechins and other tea polyphenols.

### Molecular Structure: Theaflavin



### Specifications

Appearance	: reddish brown powder	
Assay	: 95.5 - 101.0%	
Theaflavin Content	: > 25%	(2)
Catechin Content	: > 25 %	
Caffeine	: < 4.5%	
Total Polyphenols	: > 75%	
Lead	: .25 ppm max	
Heavy Metals	: .20 ppm max	
E Coli	: < 3 cfu/g	(1)
Total Coliform	: < 10 cfu/g	(3)
Salmonella	: negative / 25 g	(1)
Staphylococcus	: negative / 25 g	(1)
Yeast & Mold	: < 100 colonies /g	(1)
Aerobic Total Plate Count	: < 1000 cfu/g	(1)

(1) Method of analysis according to USP.

(2) HPLC standard, Merck 9344, 9345

(3) Most Probable Number (MPN) Method Bacteriological Analytical Manual, 8<sup>th</sup> Edition, Chapter 4, FDA, AOAC International.

**Main characteristics**

Solubility in water : 500 mgrams / 200 ml (20°C)  
Mesh Size : NLT 90% through 80 mesh

There is no evidence to demonstrate or suggest a hazard when employed at levels that are currently in use.

**Allergen**

The AFS Black tea extract is **free** from the following known allergens:

Milk	Eggs
Fish	Shellfish / Shrimp
Nuts	Wheat
Soybeans	Lactose

For the full list of free allergens in the AFS Black tea theaflavin extract please refer to AFS BTT Allergen Statement.

**Packing**

Available in 5 or 25 kg fiber drums with PTFE amber bags.

**Storage**

Highly hygroscopic. Store in well-closed containers in a dry place at ambient temperature (15-20°C). Material should be re-tested after storage for two years.

**Applications**Pharma & Nutritional Supplements

Black Tea Theaflavin extract is a natural-derived plant flavanoid for use in tablet or capsule form.

Conventional Foods and Beverages

Black tea Theaflavin is a 100% all natural extract derived from tea leaves (*Camellia sinensis*). It has a relatively high solubility in water and alcohol solutions which makes it an ideal choice for heart healthy food and beverage formulations.





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## MATERIAL SAFETY DATA SHEET

### SECTION 1. ----- CHEMICAL IDENTIFICATION-----

NAME: Black Tea Theaflavin Extract (*Camelia sinnsis* O.)

### SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS = 4670-05-7, 35323-91-2, 490-46-0, 989-51-5, 1257-08-5, 970-74-1  
> 25% Total theaflavins  
> 90% Total Polyphenols

SYNONYMS tea extract, black tea extract, theaflavin extract, theaflavins, catechins,  
polyphenols

### SECTION 3. ----- HAZARDS IDENTIFICATION -----

DATA NOT AVAILABLE

### SECTION 4. ----- FIRST-AID MEASURES-----

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS  
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.  
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND  
COPIOUS AMOUNTS OF WATER.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS  
CONSCIOUS. CALL A PHYSICIAN.  
WASH CONTAMINATED CLOTHING BEFORE REUSE.

### SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA  
WATER SPRAY.  
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.  
SPECIAL FIREFIGHTING PROCEDURES  
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO  
PREVENT CONTACT WITH SKIN AND EYES.

### SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY  
RUBBER GLOVES.  
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.  
AVOID RAISING DUST.  
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

### SECTION 7. ----- HANDLING AND STORAGE-----

REFER TO SECTION 8.

### SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

CHEMICAL SAFETY GOGGLES.  
COMPATIBLE CHEMICAL-RESISTANT GLOVES.  
NIOSH/MSHA-APPROVED RESPIRATOR.

SAFETY SHOWER AND EYE BATH.  
MECHANICAL EXHAUST REQUIRED.  
AVOID INHALATION.  
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.  
AVOID PROLONGED OR REPEATED EXPOSURE.  
WASH THOROUGHLY AFTER HANDLING.  
KEEP TIGHTLY CLOSED.  
STORE IN A COOL DRY PLACE.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----  
APPEARANCE AND ODOR  
REDDISH BROWN POWDER, ODORLESS

SECTION 10. -----STABILITY AND REACTIVITY -----  
STABILITY: STABLE  
HAZARDOUS POLYMERIZATION WILL NOT OCCUR

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----  
ACUTE EFFECTS  
MAY CAUSE EYE IRRITATION.  
MAY CAUSE SKIN IRRITATION.  
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ----- ECOLOGICAL INFORMATION -----  
DATA NOT YET AVAILABLE.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----  
DISSOLVE OR MIX THE MATERIAL WITH ADEQUATE AMOUNTS OF WATER FOR  
COMPLETE SOLUBILITY, DISPOSE VIA REGULATED WATER TREATMENT FACILITY.  
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----  
CONTACT Applied Food Sciences, Inc. FOR TRANSPORTATION INFORMATION.

SECTION 15. ----- REGULATORY INFORMATION -----  
DATA NOT AVAILABLE

SECTION 16. ----- OTHER INFORMATION-----  
THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL  
INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE.