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## SUPEROXIDE DISMUTASE (Porcine)

### SPECIFICATION SHEET

I.U.B. 1.15.1.1

### DESCRIPTION

Superoxide Dismutase has antioxidant properties and is involved in the prevention of cellular damage caused by free radicals. It works by catalyzing the breakdown of superoxide radicals into oxygen and hydrogen. This enzyme is derived from an animal source (porcine).

### PHYSICAL PROPERTIES

A light tan to brown colored, free-flowing powder, soluble in water, with characteristic odor and taste.

### ENZYMATIC PROPERTIES

The pH stability range is from 6.8 to 8.0. The temperature stability is up to 40°C.

### ACTIVITY

One unit will inhibit the rate of reduction of cytochrome c by 50% in a coupled system, using xanthine and xanthine oxidase at pH 7.8 at 25°C in a 3.0 ml reaction volume. The xanthine oxidase concentration should produce an initial (uninhibited) AA550nm of 0.025 @ 0.005 per minute. The acceptance criteria for all enzyme assays is: NLT 85.0% and NMT 115.0% of the declared units of enzyme activity.\*

**COUNTRY OF ORIGIN** Denmark

### STORAGE/SHELF LIFE/STANDARD PACK SIZE

Product is stable for two years (24 months) if stored at or below 10°C in sealed poly bags in boxes or drums away from sunlight and high humidity. Product is packed in 25 kilo fiber drums or double-wall bags.

### HANDLING PRECAUTIONS

Avoid the formation of aerosol and dust of the product. Repeated inhalation of enzyme aerosol or dust may cause allergic type reactions in sensitized individuals. For detailed information please refer to the SDS.

Description	Specification	Method
Activity:	NLT 8,000 U/GM	McCord
Identity:	Superoxide Dismutase	FTIR
Moisture:	NMT 10%	Ohaus MB-45
Metals:		
Lead	NMT 5 ppm	SW-846 6020
Microbiological Data:		
TPC	<10,000 CFU/g	Soleris / AOAC 990.12
E.coli	Negative/10g	Soleris / AOAC 991.14
Entero	<100 CFU/g	AOAC 2003.01
Salmonella**	Negative/25g	BAM Ch. 5 / AOAC 2011.03
Yeast	<1,000 CFU/g	Soleris / AOAC 997.02
Mold	<1,000 CFU/g	Soleris / AOAC 997.02
Coliforms	<100 CFU/g	Soleris / AOAC 991.14

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\*\*If Entero test results exceed 100 CFU/g then Salmonella testing is completed.

Product Code: 112016/12.15.20

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