



Food Additives in Chocolate

An-Najah National University



By: Mohammed Sabah

<i>No</i>	<i>Name</i>	<i>ADI Mg/kg</i>	<i>Function & Characteristics</i>	<i>Side Effects</i>	<i>Source</i>
E 100	Curcumin	1 mg/kg	Color - Yellow and Orange	Safe	Natural
E 120	Cochineal, Carminic acid, Carmines	5 mg/kg	Color - Red	Dangerous -May increase hyperactivity in affected children.	Natural
E 133	Brilliant Blue FCF	12.5 mg/kg	Color - Blue	Suspicious -May increase hyperactivity in affected children. -May cause allergies	Synthetic
E 150a	Plain caramel	200 mg/kg	Color - Brown and Black	Suspicious	Synthetic
E 160a(ii)	Beta-carotene Beta-apo-8-carotenal Ethyl ester of beta-apo-8-carotenoic acid	5 mg/kg	Color- Orange-yellow	Safe ?	Natural
E 160e	Beta-carotene Beta-apo-8-carotenal(C 30)	2.5 mg/kg	Color- Orange-yellow	Safe	Synthetic
E 163	Anthocyanins	2.5 mg/kg	Color - red-purple	Safe	Natural
E 171	Titanium dioxide	None determined	Color -White colour	Suspicious	Synthetic
E 202	Potassium sorbate	25 mg/kg	Preservative	Dangerous -Headaches -Intestinal problems -allergies	Synthetic
E 222	Sodium hydrogen sulphite	0.7 mg/kg	Preservative	Dangerous -Headaches -Intestinal problems -allergies	Synthetic



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				-Destroys Vitamin B12	
E 322	Lecithins	No limit	-Emulsifiers - Stabilisers	Safe	Natural
E 304	Fatty acid esters of ascorbic acid	1.25 mg/kg	Antioxidants- Vitamin C	Safe	Synthetic
E 310	Propyl gallate	1.4 mg/kg	Antioxidants	Dangerous - increase hyperactivity in affected children. - cause allergies	Synthetic
E 330	Citric acid	No limit	Acidity regulators	Safe	Natural
E 420	(i) Sorbitol (ii) Sorbitol syrup	no limits	-Emulsifier -Stabilizer -Sweetener -Bulking agent	Suspicious: -may cause flatulence -may cause diarrhea -can act as a laxative	Natural
E 422	Glycerol	Not specified	-Sugar Alcohols -Emulsifier -Sweetener	Safe	-Natural -Synthetic
E 442	Ammonium phosphatides	30 mg/kg	Emulsifiers and Stabilisers - Cellulose and derivatives	Safe	Synthetic
E 450	Diphosphates	70 mg/kg	-Emulsifier -Acid -Acidity regulator -Stabilizer -Raising agent	Dangerous disturb several metabolic processes	Synthetic
E 471	Mono and diglycerides of fatty acids	None determined	-Emulsifiers and -Stabilisers - Salts -Esters of Fatty Acids	Safe	Synthetic
E 475	Polyglycerol esters of fatty acids	25 mg/kg	Emulsifiers	Safe	-Natural -Synthetic
E 476	Polyglycerol	7.5 mg/kg	-Emulsifiers and	Safe	-Natural



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	polyricinoleate		-Stabilisers		-Synthetic
E 500	Sodium carbonates	None determined	-Acid \-alkali -Acidity regulator -raising agent	Safe	Synthetic
E 503	Ammonium carbonates	None determined	-Acid \-alkali -Acidity regulator -Anti-caking agent	Safe Can act as a laxative	Synthetic
E 504	Magnesium carbonates	None determined	-Acid -Acidity regulator -Anti-caking agent	Safe Can act as a laxative	Synthetic
E 572	Magnesium stearate	None determined	-Anti-caking agent -Emulsifier	Safe	Synthetic
E 900	Dimethyl polysiloxane	1.5 mg/kg	-Foaming agent -Anti-foaming agent -Anti-caking agent	Safe	Synthetic
E 903	Carnauba wax	None determined	-Glazing agents -Coating	Suspicious -May cause allergies	Synthetic
E 904	Shellac	None determined	-Glazing Agents -Coating	Safe	Natural