

iMIS Food - Chemical Hazards - Bacterial Toxins Table

Name	Group	Origin	Food Products	Health Effects	Thresholds	Regulation (EU)	Prevention & Control	Characteristics
Staphylococcal enterotoxins	Intoxication	<i>S. aureus</i>	Deli salads, cooked ham, pastries.	Food poisoning (vomiting, cramps).	MIDo: <1 ug.	<ul style="list-style-type: none"> • Reg. (EC) 2073/2005 (vegetative cells) • Reg. (EC) 852/2004 (GHP) 	<ul style="list-style-type: none"> • Temperature control. • Hand hygiene. 	Extremely heat resistant.
Botulinum neurotoxins	Intoxication	<i>C. botulinum</i>	Canned foods, vacuum-packed fish.	Botulism (paralysis).	Lethal dose: 30-100 ng.	<ul style="list-style-type: none"> • Reg. (EC) 852/2004 (GHP) • Reg. (EC) 853/2004 (GHP) 	<ul style="list-style-type: none"> • Validated canning. • pH control. 	Destroyed by heat.
Cereulide	Intoxication	<i>B. cereus</i>	Rice, pasta, starchy stews.	Emetic syndrome (vomiting).	MIDo: 8-10 ug/kg bw.	<ul style="list-style-type: none"> • Reg. (EC) 2073/2005 (vegetative cells) • Reg. (EC) 852/2004 (GHP) 	<ul style="list-style-type: none"> • Rapid cooling. • Hot holding. 	Extremely heat resistant.
Shiga toxins	Toxico-infection	STEC/VTEC	Ground beef, sprouts, raw milk.	Haemorrhagic colitis.	MID: 10-100 cells.	<ul style="list-style-type: none"> • Reg. (EC) 2073/2005 (vegetative cells) • Reg. (EC) 853/2004 (GHP) 	<ul style="list-style-type: none"> • Cooking meat >70°C. • Farm hygiene. 	Destroyed by heat.
Perfringens enterotoxin	Toxico-infection	<i>C. perfringens</i>	Stews, gravies, large meat batches.	Perfringens food poisoning.	TPT: >1,000,000 cells.	<ul style="list-style-type: none"> • Reg. (EC) 853/2004 (GHP) • Reg. (EC) 852/2004 (GHP) 	<ul style="list-style-type: none"> • Rapid cooling. • Small portions. 	Destroyed by heat.
Histamine	Biogenic amine	<i>Morganella</i> spp.	Tuna, mackerel, fish sauce.	Scombroid poisoning.	NOAEL: 50 mg/meal.	<ul style="list-style-type: none"> • Reg. (EC) 2073/2005 (toxin) • Reg. (EC) 853/2004 (GHP) 	<ul style="list-style-type: none"> • Rapid chilling. • Testing. 	Heat resistant.