

FEED. Risk assessment of the chain of starch manufacturing

EXAMPLE 2.4: A PEA PRODUCT, FOCUS ON RECEPTION, PROCESS, STORAGE AND LOADING STEPS

RISK BASED APPROACH PEA PROCESSING				Process stage: RECEPTION (Pea)			
Hazard	Category	Chance	Seriousness	Risk Class.	Legislation	Control Measure	Remarks
Foreign bodies	P	Low	High	3		Closed process, sieving, magnets, cleaning steps.	Visual checks.
Toxic plants / seeds	C	Low	Medium	2	Dir. 2002/32/EC	PRP for incoming raw materials. Analysis via monitoring programme.	Visual checks.
Heavy Metals above the specified limit	C	Low	High	3	Dir.2002/32/EC	PRP for incoming raw materials. Analysis via monitoring programme.	Purchasing specifications. Regulatory compliance.
Pesticides residues (authorised) above MRL	C	Medium	Medium	3	Reg. 396/2005/EC	PRP for incoming raw materials. Analysis via monitoring programme.	Purchasing specifications. Regulatory compliance.
Pesticides residues (unauthorised)	C	Very low	High	2	Directive 2002/32/EC	A monitoring program should be in place.	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may be present in the environment.
Mycotoxins above the specified limit	C	Low	High	3	Dir. 2002/32/EC	PRP for incoming raw materials. Analysis via monitoring programme.	Purchasing specifications. Regulatory compliance.



FEED. Risk assessment of the chain of starch manufacturing

Lubricants from equipment	C	Low	High	3		PRP for maintenance. Use of food grade lubricant	Purchasing specifications. Prerequisite program.
Pests	B	Medium	Medium	3		Closed buildings, PRP for Pest control. Covered storage and loading	Checks on pest activity.

RISK BASED APPROACH FOR PEA PROCESSING	Process stage: PROCESS (Dry cleaning, Grinding, Sieving, Refining, Drying)
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Hazard	Category	Chance	Seriousness	Risk Class.	Legislation	Control Measure	Remarks
Foreign bodies	P	Low	High	3		Closed process, sieving, dedicated transport lines, dry cleaning of pea. Glass procedure. Good maintenance practices PRP for personal hygiene clothes).	Visual checks.
Lubricants	C	Low	High	3		PRP for maintenance. Use of food grade lubricant.	Purchasing specifications.
Processing aids	C	Low	Medium	2		On-line monitoring (follow up excessive use of processing aids) pH control, work instructions and training personnel.	Purchasing specifications.
Cleaning and disinfection agents	C	Low	Medium	2		PRP for cleaning and sanitation Consumption rates. Use of food contact authorized.	Purchasing specifications.
Neoformed Chemicals (direct drying)	C	Medium	Medium	3		Burner control. Gas specifications. End-product analyses. Indirect dryer.	
Contaminants in water	B/ C	Low	High	3	Reg. 183/2005/EC	Analysis via monitoring programme.	Apply water of suitable quality.



FEED. Risk assessment of the chain of starch manufacturing

Pests	B	Low	Medium	2		PRP for Pest control. Closed process / closed workshops.	Checks on pest activity.
Pathogenic microbiological organisms, including Salmonella	B	Low	High	3		Process control (Temperature, pH. Time and Moisture content). PRP for cleaning and sanitation. Drying/evaporating steps: control moisture content of product. Process monitoring on micro organisms. Final product monitoring on micro organisms.	

RISK BASED APPROACH FOR PEA PROCESSING				Process stage: STORAGE AND LOADING			
Hazard	Category	Chance	Severity	Risk Class.	Legislation	Control Measure	Remarks
Foreign bodies	P	Low	High	3		Closed process, sieving.	Visual checks.
Lubricants	C	Low	High	3		PRP for maintenance. Use of food grade lubricant.	Purchasing specifications.
Pests	B	Moderate	Moderate	3		PRP for Pest control.	Checks on pest activity.
Pathogenic microbiological organisms, including Salmonella	B	Low	High	3		PRP for personnel hygiene, PRP for cleaning and PRP for maintenance. Control of temperature and ventilation. A monitoring programme	Good storage practices for bulk storage



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