



Hop Allergen Risk Assessment

Allergen risk evaluation and management is a requirement for Good Agricultural Practices for producers supplying ingredients for processing. Hop producers are an intricate supplier of ingredients used in the brewing of beer. Risk is defined as a measure of the likelihood of a hazard doing harm and how much potential harm the hazard introduces. The following risk analysis is an estimate of the probability of an allergen being present as a result of the standard harvesting and handling practices of hops in the U.S. The evaluation of this risk analysis determined that the likelihood of an allergen (as identified by the USFDA) being present in hops is low to non-existent. If a producer chooses to use products or packaging materials that are not commonly used, the producer is responsible for identifying potential allergen risks that may otherwise not be present and how to prevent allergens from contaminating finished product (hops).

ASSESSMENT OF POTENTIAL ALLERGENS										RISK MANAGEMENT	
<p>The US FDA identifies major food allergens as; milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat and soybeans. The purpose of this hazard analysis is to determine the risks due to unintentional presence of allergens in the production of dried, baled hops as outlined per FDA 9 CFR 417.2. This hazard analysis serves as the foundation for a strong and successful Hazard Analysis of Critical Control Points (HACCP) plan. Historically, there have been no known confirmed allergens used in the standard production of dried hops.</p>										<p>Risk management is eliminating or reducing the risk of unintentional presence of allergens, including cross-contact and mislabelling of ingredients/processing aides. Allergens need to be managed from the production process to the finished product. Risks can be managed through employee training and supervision, product design and formulation, supply chain of raw materials, manufacturing facility and equipment, cleaning methods, and packaging products. If a known allergen is used, you can reduce the risk if you decrease how likely it is for allergen cross-contact to happen on your premises.</p>	
INGREDIENT/EQUIPMENT	ID of potential allergen introduced or controlled by ingredient or equipment							Are there potential allergens present?	Is this significant or likely?	Justification for Decision	What measures can be applied to avoid or prevent significant allergen hazards?
	Milk	Eggs	Fish	Shellfish	Tree Nuts	Peanuts	Wheat				
Wet/Raw Hops (Ingredient)								No	No	Hops, by nature, are not categorized as one of the USFDA major food allergens. Hops are recognized as a safe food ingredient by the USFDA GRAS and are exempted from the usual Federal Food, Drug, and Cosmetic Act (FFDCA) food additive tolerance requirements.	No known common allergens are used in the standard industry production and packaging (baling) of hops. Hops are a single, stand alone ingredient used in the brewing of beer.
Dried/Baled Hops (Finished Product)								No	No		
Transportation Equipment of Ingredients								No	No	No known allergens are used in the standard industry practice of picking, drying and handling of hops (baling). There are no additives or ingredients added to hops. Standard industry cleaning practices involve the use of compressed air, potable water, bleach (potentially), and mineral oil and/or food-grade non-allergen based products to remove hop residue from equipment, conveyor belts and floors. Inks used in the stenciling or labeling of bales do not contain any known food allergen based products.	Producers using any cleaning, lubricating and/or packaging and labeling products that may come in contact with hops, equipment, conveyor belts, cooling room floors or packaging materials shall verify through product labels that products do not contain any allergens that may potentially be a source of allergen contamination. Employees are trained to eat in designated break/lunch areas, to properly dispose of any food wrappers and containers, and to wash their hands before returning to work station. Vending machines shall be located in designated break/lunch areas only, and away from any harvesting, handling or storage facilities and packaging materials. Outside food vendors are instructed to park in designated areas and comply with all producers food safety policies and requirements. In the event of a known allergen contamination, producer must show documented record of cleaning of area and/or equipment, or disposal of packaging materials or product that potentially contaminated with known allergen.
Picking Facilities								No	No		
Drying Facilities								No	No		
Cooling Facilities								No	No		
Baling Facilities								No	No		
Packaging Materials								No	No		
Transportation Equipment of Finished Product								No	No		
Storage Facilities								No	No	Vehicles used in the transporting of hop bales from producer to customer for further processing and/or brewing are typically transported on flatbed trailers, and occasionally in refrigerated containers. Transportation vehicles are inspected prior to loading hop bales for transport to customer. Baled hops are transported to customer typically within 24-48 hrs of production. It is not common for producers to have on-site refrigerated storage.	Producers must ensure that transportation vehicles are not used to transport products that contain known food allergens. In the case of a known allergen contamination, vehicles must show documented record of cleaning prior to use when hauling hop bales. Producers who store bales onsite must demonstrate clear separation of hop bales away from storing any products that contain known food allergens, and must have record of facility inspection and cleaning to prevent the possibility of contamination with an allergen.
Other											

Based on the result of the risk assessment, there are no known allergens found in the standard industry practice of picking, drying, cooling, baling, storing and transporting of hops. Therefore, no allergen advisory labelling is needed. Each producer shall conduct an assessment of their own farm practices to evaluate if their practices differ from standard industry practices, and if known allergens may be present.

REVIEWED BY: Ann E. George, Executive Director, Hop Growers of America

REVIEW DATE: 6-20-2020

CHANGE RECORD			
REVISION NUMBER:	DATE:	DESCRIPTION OF CHANGE:	APPROVED BY: