

## Sugarbeet molasses – for distilleries – product specifications

Name of the product	Molasses – for distilleries
Product characteristics	Beet sugar production by-product containing remnants of syrups from the sugar refining processes
Applications	For distilleries
Basic input materials	Sugarbeet, water
Basic characteristics of the technological process	Sugar-sucrose is industrially separated from the basic raw material, sugarbeet, in the following technological processes: 1. Cleaning and chopping the sugarbeet 2. Extracting “raw juice” 3. Purifying and filtering the sugar juice 4. Evaporating 5. Crystallisation 6. Centrifuging
Sensory requirements	Colour, appearance – dark brown to black; Taste – distinguished bitter-sweet; Odour – typical, without strange odours; Consistency – viscid syrup fluid, may contain small crystals of sucrose; Frothed, caramelised, infected or contaminated (by solid particles) product cannot be delivered for fermentation processing.
Declared properties in compliance with ČSN 56 5840	Dry mass (refractometer): min. 75% Saccharose (polarometer): min. 43% (for alcohol and yeast production: min.46 %) Invert sugar: max. 2.5% (for alcohol and yeast production: max. 1 %) Conductometric ashes: min. 9% Sulphites and sulphur dioxide: max. 0,1 % pH: 7,1 to 8,8 (for alcohol and yeast production: 7,1 to 8,5) Nitrites: negative Calcic and magnesium salts : max. 1,0 % Volatile acids, such as acetic acid: max. 0,8 %
Microbiological requirements	Number of microorganisms in 1g of mass: maximum 10 000
Packaging (including specifications of the applied containers)	The product is filled into road or railway tankers, barrels or other suitable containers. All of them must be in a good condition, clean and microbiologically approved.
Product distribution	Molasses is distributed in barrels or tankers.

	The allowed means of transport must comply with the hygiene requirements on food transportation as stipulated in the Act No.110/97 Coll. as amended, and the requirements of the Gov. Regulation 38/2001 Coll., as amended, - On materials in contact with loose foodstuffs.
Storing conditions	The product is stored in clean, microbiologically suitable and closed molasses tanks, steel containers or barrels. It is not allowed to apply any admixtures before dispatch. Storing temperature limit is max. 35°C; pH value of the stored product must be at least 8; diluting with water is not allowed.
Minimal durability	2 months under stipulated storing conditions

### **Molasses (treacle) – animal feed – product specifications**

Name of the product	Molasses – animal feed – product of the industrial processing of sugar beet
Producer's Register No.	<b>10541</b>
File number	<b>10541-1</b>
Product characteristics	Beet sugar production by-product containing remnants of syrups from the sugar refining processes. Animal feed is a product of the vegetable or animal origin providing nutrition for animals.
Applications	Animal feed
Usage guideline	The product can be fed directly or used as an ingredient of the fodder mixtures for domestic animals and livestock.
Basic input materials	Sugar beet, water
Basic characteristics of the technological process	Sugar-sucrose is industrially separated from the basic raw material, sugarbeet, in the following technological processes: 1. Cleaning and chopping the sugarbeet 2. Extracting “raw juice” 3. Purifying and filtering the juice 4. Evaporating 5. Crystallisation 6. Centrifuging
Declared properties required by EU 767/2009	All sugar declared as saccharose Water content: if above 28 % Insoluble ashes fraction in HCl, if above 3.5 % in dry mass

	Unwanted elements and substances	Max. rate mg/kg (ppm) of mass with water content 12 %
Chemical requirements	Arsenic	2
	Lead	10
	Fluorine	150
	Mercury	0.1
	Cadmium	1
	Aflatoxin B1	0.02
	Hydrocyanic acid	50
	Aldrine	0.01
	Chlordane	0.02
	DDT	0.05
	Endosulfan	0.1
	Endrine	0.01
	Heptachlorine	0.01
	Hexachlorbenzene HCB	0.01
	Hexachlorcyclohexan HCH alfa isomers beta isomers gama isomers	 0.02 0.01 0.2
	Dioxin	0.75 ng WHO-PCDD/F TEQ /kg
Sum of dioxins and PCB with dioxin effects	1.25 ng WHO-PCDD/F-PCB-TEQ/kg	
Packaging (including specifications of the applied containers)	The product is filled into road or railway tankers, barrels or other suitable containers. All of them must be in a good condition, clean and microbiologically approved.	
Product distribution	Product is distributed in barrels or tankers. The means of transportation must comply with hygiene requirements for the animal feed transport.	
Storing conditions	The product is stored in clean, microbiologically suitable and closed molasses tanks, steel containers or barrels. It is not allowed to apply any admixtures before dispatch. Storing temperature limit is max. 35°C; pH value of the stored product must be at least 8; diluting with water is not allowed.	
Minimal durability	2 months under stipulated storing conditions	