SMBS (E223) HACCP Implementation Plan

NO	CRITICAL CONTROL POINT	HAZARD	CRITICAL LIMIT	PREVENTIVE ACTIONS FOR CRITICAL LIMIT	SURVEILLANCE				CORRECTIVE ACTIONS	RECORDS	VERIFICATION	RELATED DOCUMENTS
					WHAT	WHEN	FREQUENCY	WHO				
CCN-1	Raw material acceptance	Chemical contamination in sulfur: Arsenic (As), Selenium (Se) , acidity (as H2SO4) should be within limits. The vehicles should be suitable.	For sulfur; Arsenic (As) content : max. 3ppm (m/m) Seleniım (Se) content: Max. 3ppm (m/m) Acidity (as H2SO4) max 0.1% (m/m)	For sulfur: working with trusted supplier, taking samples from sulfur trucks. Suitability/cleaning of the vehicle. If the conditions are not met, the vehicle is not allowed into the facility and material is returned	Chemical contamination	Analysis	For each lot	Quality Control staff	The process of acceptance of raw material is as follows: samples are taken from the trucks, and analysed. Inconvenient raw materials are not accepted.	Oracle Raw Material Analysis results	Is verified wtih CoAs taken from the supplier on monthly basis	Raw Material Specification (Sulfur-Liquid) (3.004.01.08) Inorganic Salt Facility Material Acceptance and Storage Instruction (ÇT-E.1.7.019) Supplier Evaluation Instruction, Control of the non-conformities, and call-back procedure (P-021)
CCN-2	Raw material acceptance	Chemical contamination in soda: Purity (Na2CO3), NaCl content, Na2SO4 content, Heavy metals (**) (as Pb), Iron (Fe) content	For soda: Purity (Na2CO3): min 99% (m/m), NaCl content: max 0.5% (m/m), Na2SO4 content: max 0.4% (m/m), Heavy metals (**) (as Pb): max. 5 ppm, Iron (Fe) content max 20 ppm	For soda: working with trusted supplier, taking samples from soda silobus. Suitability/cleaning of the vehicle. If the conditions are not met, the vehicle is not allowed into the facility and material is returned	Chemical contamination	Analysis	For each lot	Quality Control staff	The process of acceptance of raw material is as follows: samples are taken from the trucks, and analysed. Inconvenient raw materials are not accepted.	Oracle Raw Material Analysis results	Is verified wtih CoAs taken from the supplier on monthly basis	Raw Material Specification Sodium Carbonate (3.004.01.003) Inorganic Salt Facility Material Acceptance and Storage Instruction (ÇT-E.1.7.019) Supplier Evaluation Instruction, Control of the non-conformities, and call-back procedure (P-021) Supplier declaration
CCN-3	Raw material acceptance	Chemical contamination in caustic: Purity (NaOH), Na2CO3 content, Chlorine content (Cl-), Iron content (Fe), Mercury (Hg)	Chemical contamination in caustic: Purity (NaOH),: 46%-50% (m/m) Na2CO3 content max 0.75% (m/m) Chlorine content (Cl-), max 0.0060% (m/m) Iron content (Fe), max 10 ppm Mercury (Hg) max 0.5 ppm	For caustic: Caustic analysis in Chlorine-Alkali Facility (quality control) For caustic supplied from 3rd parties analysis based on samples taken. Suitability and cleaning of the vehicles. If the conditions are not met, the vehicle is not allowed into the facility and material is returned . For the caustic taken from Chlorine-Alkali facility, the material is not stored in raw material tanks in case of non-conformity.	Chemical contamination	Analysis	For each lot	Quality Control staff	The process of acceptance of raw material is as follows: samples are taken from the trucks, and analysed. Inconvenient raw materials are not accepted.	Oracle Raw Material Analysis results	For caustic, analysis are run by an external laboratory annually	Raw Material Specification Sodium Hydroxide (3.004.01.05) Inorganic Salt Facility Material Acceptance and Storage Instruction (ÇT-E.1.7.019) Supplier Evaluation Instruction, Control of the non-conformities, and call-back procedure (P-021) Supplier declaration
CCN-4	Transition from SodiumSulfite to Sodium Metabisulfite (Crystalization)	Having crystals out of PH range	PH min.:4,0 PH max.:5,5	Caustic and soda feed based on sulfur feed	PH	Analysis, online monitoring	Once every 4 hours	Shift foreman	Crystal pH is determined 4-5.5 on the basis of % 10 solution according to Turkish Food Codex. This value is set as 4-5,5 in our product specification. PH is monitored online from DCS. PH meter is verified with samples taken from the field. This value is also monitored by quality control lab. In case of increase or decrease in this values feed for the crystal separation (centrifuge). Alkali feed (caustic, soda) is decreased if the value is high, increased if low, and solution PH is constantly monitored.	Inorganic Salts Facility, SMBS Unit Analysis Tracking Form	Control of the calibration records of PH meter of Inorganic Salts Facility, SMBS Unit	Sodium Metabisulfite - Food Grade (3.003.01.11)
CCN-5	Sieving the product	Physical contamination Rupture of the sieve	Robustness of the sieve	Sieve control, withdrawal bigbags control (in case any problem at the sieves i.e. tear, withdrawal bigbags would fill in an hour) Changing the sieve	Physical Contamination	Observation	Daily	Filling and packaging staff	Visual inspection and recording	Food Management Management System Sieve Control Form, Maintenance Records	Continuous visual inspection of the screen	Food Management Management System Sieve Control Form, Maintenance Records
CCN-6	Detecting product by passing metal detector	Physical Contamination/ Failure of metal dedector	Non-iron metal ≥ 1.5 mm Stainless steel ≥ 1.8 mm Iron ≤ 1	Control of metal detector	Physical Contamination	Control	Monthly	Technician - Calibration	Visual inspection and recording	Food Management Management System Sieve Control Form, Maintenance Records	Verification of the metal detector	Food Management Management System Sieve Control Form, Maintenance Records
CCN-7	Packaging	Nonconformity of the chemical parameters of the crystal	Product specifications	Quality Control Analysis	Chemical contamination	Analysis	For each lot	Quality Control staff	In case of out-of-limit values, actions are taken in line with Non-conforming Product Instructions	Inorganic Salts Facility, SMBS Unit Analysis Tracking Form	Analysis are run by an external laboratory annually	Inorganic Salts Facility, SMBS Unit Analysis Tracking Form Control of the non-conformities, and call-back procedure (P-021)