

HH-24.1. Occupational scenario for industrial use of flux pastes to coat welding/brazing rods

Systematic title based on use descriptor	PROCs	
	9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing).
	14	Production of preparations/articles by tableting, compression, extrusion, pelletisation.

HH-24.2 Controlling worker exposure

Product characteristics	Paste used to coat the rods contains 1.48% boron.	
Amounts used	Hundreds of tonnes per year.	
Frequency and duration of use	Monthly, weekly, or daily.	
Human factors not influenced by risk management	None	
Other given operational conditions affecting workers exposure	Activities take place indoors at ambient conditions.	
Technical conditions and measures at process level (source) to prevent release	The extrusion and coating process is carried out in an enclosed system under pressure.	
Technical conditions and measures to control dispersion from source towards the worker	None	
Organisational measures to prevent /limit releases, dispersion and exposure	Appropriate training.	
Conditions and measures related to personal protection, hygiene and health evaluation	Clothing	Standard work clothes
	Gloves	Not required for normal industrial exposure
	Eye protection	Required where good hygiene practice or substance classification demands it
	RPE	P3 to prevent inhalation exposure to dust

HH-24.3. Exposure estimation

	INHALATION						
		Activity	Source/ Parameters	RMM	Value 8h TWA mg B/m ³	RCR DNEL = 1.45 mg B/m ³	
	Human Health Exposure Estimations	Modelled (ART)	Packing of the dried, coated rods	Coarse, Dry Residual dust on solid objects Normal handling Effective housekeeping No localised controls Any size workroom No restriction on general ventilation characteristics	-	0.043 (90P)	0.03
DERMAL							
		Activity	Source/ Parameters	RMM	Value mg B/day	RCR DNEL = 4800 mg B/day	
Modelled (MEASE)		Pneumatically transfer of substance from/to large vessels	Physical form	massive	-	4.8	0.001
			Content	1 - 5% boron			
			PROC	9			
			Duration	> 240 min			
			Use pattern	non dispersive			
			Handling	direct			
Contact level		extensive					

HH-24.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

If the parameters used in the MEASE model outlined above do not reflect conditions at the DU facility, the DU can use MEASE and input the parameters that do reflect conditions at the DU facility to check whether the DU works inside the boundaries set by the ES. Detailed guidance for evaluation of ES can be acquired via your supplier or from the ECHA website (guidance R14, R16).