E-3.1 Environmental scenario for industrial use of borates in the production of diboron trioxide-containing catalysts

	ERCs	Description
Systematic title based on use descriptor	1	Manufacture of chemicals
	3	Formulation in materials
	6a	Industrial use resulting in manufacture of another substance (use of intermediates)
	6b	Industrial use of reactive processing aids

E-3.2 Controlling environmental exposure

Product characteristics	Granular, powder or dissolved form	
Amounts used	200 T B/y	
Frequency and duration of use	330 days per year	
Environment factors not influenced by risk management	Not relevant	
Other given operational conditions affecting environmental exposure	Appropriate process control systems are implemented.	
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	**Release factor to water after on-site treatment**	Not relevant
	Release factor to air after on-site treatment	2.7 g/T
Organizational measures to prevent/limit release from site	Regular operator training. Spillages of powder or granulated borates should be swept or vacuumed up immediately and placed in containers for disposal in order to prevent unintentional release to the environment.	
Conditions and measures related to municipal sewage treatment plant	Not relevant; no water emissions	
Conditions and measures related to external treatment of waste for disposal	Diboron trioxide containing waste is filled into containers and disposed off at dedicated licensed waste treatment facility and incinerated. Diboron trioxide containing waste suitable for recycling may be recycled either internally or at licensed recycling facility.	

E-3.3. Exposure estimation

		PEC	PNECadd	RCR
ES1: Environmental Exposure Estimations	**Aquatic environment**	Not relevant	2 020 µg/L	Not relevant
	Terrestrial environment	0.01 mg/kg dw	5.4 mg/kg dw	0.001

E-3.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

The DU works inside the boundaries set by the ES if either the proposed risk management measures or emissions (expressed in g/T) as described above are met or the DU can demonstrate on his own that his implemented risk management measures or emissions are adequate. Detailed guidance for evaluation of ES can be acquired via your supplier or from the ECHA website (guidance R16). For environmental exposure, a DU-scaling tool (free download: http://www.arche-consulting.be/Metal-CSA-toolbox/du-scaling-tool) is available.