

35. ES 35: Service life (worker at industrial site); Service life of hardmetal articles in industrial settings

35.1. Title section

Article category: Machinery, mechanical appliances, electrical/electronic articles (AC 2)

Environment	
1: Service life of hardmetal articles in industrial settings	ERC 12a
Worker	
2: Handling and use of hardmetal articles	PROC 24
Exposure scenario of the uses leading to the inclusion of the substance into the article	
ES 32: Use at industrial sites; Base metals and alloys; Production of hardmetal powder	
ES 33: Use at industrial sites; Base metals and alloys; Production of sintered hardmetal articles	
ES 34: Use at industrial sites; Base metals and alloys; Production of hardmetal powder for surface technology	

35.2. Conditions of use affecting exposure

35.2.1. Control of environmental exposure: Service life of hardmetal articles in industrial settings (ERC 12a)

Amount used, frequency and duration of use (or from service life)
Daily amount per site <= 10 tonnes/day
Annual amount per site <= 1E3 tonnes/year
Conditions and measures related to biological sewage treatment plant
Municipal sewage treatment plant is assumed.
Assumed domestic sewage treatment plant flow >= 2E3 m3/day
Conditions and measures related to external treatment of waste (including article waste)
Dispose of waste product or used containers according to local regulations.

35.2.2. Control of worker exposure: Handling and use of hardmetal articles (PROC 24)

Product (article) characteristics
Maximum emission potential covered in this ES: Low (abrasion based).
Limit the concentration of the substance in mixture to <= 25 %.
Physical form covered in this ES: Bound in article.
Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374.; For further specification, refer to section 8 of the SDS.
Use suitable eye protection.; For further specification, refer to section 8 of the SDS.
Wear respiratory protection providing a minimum assigned protection factor of 10 (a minimum efficiency of 90%) unless inhalation exposure to the substance can be excluded. For further specification, refer to section 8 of the SDS.

35.3. Exposure estimation and reference to its source

35.3.1. Environmental release and exposure: Service life of hardmetal articles in industrial settings (ERC 12a)

Release route	Release rate	Release estimation method
Water	0 kg/day	Estimated release factor
Air	0 kg/day	Estimated release factor
Soil	0 kg/day	Estimated release factor

35.3.2. Worker exposure: Handling and use of hardmetal articles (PROC 24)

Route of exposure and type of effects	Exposure estimate	RCR
Inhalation, local, long term	0.1 µg/m ³ (Measured data)	< 0.01

35.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance: Please refer to Section 0.3 of this "ES for Communication".