12. ES 12: Service life (professional worker); Welding in professional settings

12.1. Title section

Article category: Metal articles (AC 7)

Environment	
1: Welding in professional settings	ERC 10a, ERC 11a
Worker	
2: Welding in professional settings	PROC 25
Exposure scenario of the uses leading to the inclusion of the substance into the article	
ES 7: Use at industrial sites; Various products; Various sectors; Production and industrial use of cobalt containing alloys, steels and tools	

12.2. Conditions of use affecting exposure

12.2.1. Control of environmental exposure: Welding in professional settings (ERC 10a, ERC 11a)

Conditions and measures related to biological sewage treatment plant
Municipal sewage treatment plant is assumed.
Conditions and measures related to external treatment of waste (including article waste)
Dispose of waste product or used containers according to local regulations.

12.2.2. Control of worker exposure: Welding in professional settings (PROC 25)

Product (article) characteristics
Maximum emission potential covered in this ES: High (temperature based).
Limit the concentration of the substance in mixture to <= 25 %.
Physical form covered in this ES: Molten.
Physical form of product; Gaseous
Amount used (or contained in articles), frequency and duration of use/exposure
Limit the duration of exposure <= 240 min.
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.
APF of RPE = 40 (97.5% respiratory protection).
Specific RPE may be required depending on the type of the conducted welding process and compliance with national regulations has to be assured. Please refer to e.g. http://european-welding.org/wp-content/uploads/2016/10/Communication-statements_july_2010.pdf.

12.3. Exposure estimation and reference to its source

12.3.1. Environmental release and exposure: Welding in professional settings (ERC 10a)

Release route	Release rate	Release estimation method

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

12.3.2. Worker exposure: Welding in professional settings (PROC 25)

Route of exposure and type of effects	Exposure estimate	RCR
Inhalation, local, long term	36 µg/m³ (MEASE)	0.9

12.4. 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”.