

## 16. ES 16: Service life (consumers); diamond tools and other cobalt-containing tools other than hard metal

### 16.1. Title section

Article category: Machinery, mechanical appliances, electrical/electronic articles (AC 2), Metal articles (AC 7)

<b>Environment</b>	
1: Service life of diamond tools and other cobalt-containing tools other than hard metal used by consumers	ERC 10a, ERC 11a
<b>Consumer</b>	
2: Use of cutting tools	AC 2
3: Use of cutting tools	AC 7
<b>Exposure scenario of the uses leading to the inclusion of the substance into the article</b>	
ES 7: Use at industrial sites; Various products; Various sectors; Production and industrial use of cobalt containing alloys, steels and tools	
ES 8: Use at industrial sites; Various products; Manufacture of fabricated metal products, except machinery and equipment; Industrial use of cobalt in the production of diamond tools	

### 16.2. Conditions of use affecting exposure

#### 16.2.1. Control of environmental exposure: Service life of diamond tools and other cobalt-containing tools other than hard metal used by consumers (ERC 10a, ERC 11a)

<b>Conditions and measures related to external treatment of waste (including article waste)</b>
Dispose of waste product or used containers according to local regulations.
<b>Other conditions affecting environmental exposure</b>
Municipal sewage treatment plant is assumed.

#### 16.2.2. Control of consumer exposure: Use of cutting tools (AC 2)

<b>Product (article) characteristics</b>
Oral exposure is considered to be not relevant.
Physical form covered in this ES: bound in article
Inhalation exposure is considered to be not relevant.
Dermal exposure assumed to be negligible
<b>Information and behavioral advice for consumers</b>
Do follow the manufacturers recommended specification for material being cut, drilled or sawed.

#### 16.2.3. Control of consumer exposure: Use of cutting tools (AC 7)

<b>Product (article) characteristics</b>
Oral exposure is considered to be not relevant.
Physical form covered in this ES: bound in article

Inhalation exposure is considered to be not relevant.
Dermal exposure assumed to be negligible
<b>Information and behavioral advice for consumers</b>
Do follow the manufacturers recommended specification for material being cut, drilled or sawed.

### 16.3. Exposure estimation and reference to its source

#### 16.3.1. Environmental release and exposure: Service life of diamond tools and other cobalt-containing tools other than hard metal used by consumers (ERC 10a)

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

#### 16.3.2. Consumer exposure: Use of cutting tools (AC 2)

Route of exposure and type of effects	Exposure estimate	RCR
Inhalation, local, long term	0 µg/m <sup>3</sup> (Qualitative assessment)	< 0.01
Oral, systemic, long term	0 µg/kg bw/day (Qualitative assessment)	< 0.01

#### 16.3.3. Consumer exposure: Use of cutting tools (AC 7)

Route of exposure and type of effects	Exposure estimate	RCR
Inhalation, local, long term	0 µg/m <sup>3</sup> (Qualitative assessment)	< 0.01
Oral, systemic, long term	0 µg/kg bw/day (Qualitative assessment)	< 0.01

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

Guidance: none