

GUIDE

Guide  
on green public procurement

# Garden Tools

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# **Garden Tools**

**This guide is based on the January 2017 edition of the Blue Angel eco-label criteria for garden tools (DE-UZ 206).**

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# 1. Introduction

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Garden tools generate noise which, in residential areas, recreational areas and elsewhere can constitute a major source of noise pollution that is often found to be highly disturbing. The Blue Angel eco-label for garden tools provides guidance that makes it easier to purchase particularly low-noise garden tools.

This guide is based on the Blue Angel eco-label criteria, whose requirements are more stringent than the provisions of the applicable EU law, i.e. Directive 2000/14/EC, which relates to noise emission in the environment by equipment for use outdoors.

Given that garden tools that are powered by internal combustion engines do not meet the optimized and stringent noise criteria of the Blue Angel eco-label, such equipment no longer falls within its purview. The scope of the eco-label as well as this guide covers garden tools with electric motors (mains or battery powered).

Garden tools that meet the requirements of the Blue Angel eco-label and this guide comply with other key product criteria such as the use of low-emission materials for equipment manufacturing, as well as durable, repair-friendly and recyclable design and construction. Rechargeable battery-powered garden tools use low-emission and long-lasting batteries, the availability of replacement batteries is ensured.

Inasmuch as it is presumed that such devices will comply with the applicable laws, the provisions of such laws are not expressly stated as requirements in this guide. This applies to the following in particular:

- ▶ The German law known as Geräte- und Maschinenlärmschutzverordnung (32. BImSchV)<sup>1</sup> to implement Directive 2000/14/EC<sup>2</sup>
- ▶ The German law known as the Produktsicherheitsgesetz (ProdSG)<sup>3</sup> to implement Directive 2006/42/EC<sup>4</sup>

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1 32. Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes vom 29. August 2002 (BGBl. I p. 3478, as amended by Article 83 VO 31. August 2015 (BGBl. I p. 1474, 1488).

2 Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors. Official Journal L 162 , 03/07/2000 P. 0001 – 0078.

3 Gesetz über die Bereitstellung von Produkten auf dem Markt vom 8. November 2011, BGBl. I S. 2178, as amended by Artikel 435 VO vom August 2015 (BGBl. I p. 1474, 1538).

4 Directive 2006/42/EC of the European Parliament and the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC. Official Journal of the European Union | L 157/24.

- ▶ The German law known as the Batteriegesetz (BattG)<sup>5</sup> to implement Directive 2006/66/EC<sup>6</sup>
- ▶ Commission Regulation (EU) No 1103/2010<sup>7</sup> of 29 November 2010 establishing, pursuant to Directive 2006/66/EC of the European Parliament and of the Council, rules as regards capacity labelling of portable secondary (rechargeable) and automotive batteries and accumulators
- ▶ The German laws known as the Elektro- und Elektronikgeräte-Gesetz (ElektroG)<sup>8</sup> and the Elektro- und Elektronikgeräte-Stoff-Verordnung (ElektroStoffVO)<sup>9</sup> to implement Directive 2012/19/EU<sup>10</sup> and Directive 2011/65/EU<sup>11</sup>
- ▶ and the substance requirements set forth in REACH (1907/2006/EC)<sup>12</sup> and in Regulation (EU) No 1272/2008.<sup>13</sup>

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5 Batteriegesetz vom 25.06.2009 (BGBl. I p. 1582), as last amended by Article 2 Gesetz vom 20. November 2015 (BGBl. I p. 2071)

6 Directive 97/68/EC 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC. Official Journal of the European Union | L 266/1.

7 Commission Regulation (EU) No 1103/2010 of 29 November 2010 establishing, pursuant to Directive 2006/66/EC of the European Parliament and of the Council, rules as regards capacity labelling of portable secondary (rechargeable) and automotive batteries and accumulators.

8 Gesetz über das Inverkehrbringen, die Rücknahme und die umweltverträgliche Entsorgung von Batterien und Akkumulatoren (BGBl. I, p. 1739) as last amended by Article 3 of Verordnung vom 20. Oktober 2015 (BGBl. I p. I p. 1739).

9 Elektro- und Elektronikgeräte-Stoff-Verordnung vom 19. April 2013 (BGBl. I p. 1111).

10 Directive 2012/19/EC of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE). Official Journal of the European Union | L 197/38.

11 Directive 2011/65/EC of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. Commission Delegated Directive 2015/863/EC of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances adds further substances to the list of prohibited substances in Annex II. These bans will come into effect on 22 July 2019.

12 Regulation (EC) No 1907/2006 (REACH) of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

13 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

## 2. How to use this guide

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This guide contains key information and recommendations for contracting authorities concerning the incorporation of environmental aspects into tender and contractual documents. The tenderer questionnaire concerning green procurement of rechargeable battery and mains powered garden tools (annexed hereto and available as a Microsoft Word document from [www.beschaffung-info.de](http://www.beschaffung-info.de)) is intended for use as an annex to the specifications. To this end, in terms of the environmental requirements for the deliverables in question you need only include a reference in the specifications in order to meet the legal requirement that the deliverables be described clearly and completely.<sup>14</sup> Such a reference could be worded as follows:

*The [chainsaws, garden shears, lawnmowers, grass trimmers, lawn edge cutters, lawn trimmers, lawn edge cutters, rechargeable-battery operated brushcutters, electrical scythes and trimmers, scarifiers, shredders, pole pruners (cross out the inapplicable items)] must meet the minimum criteria set forth in the appended “Tenderer questionnaire concerning green public procurement of [rechargeable battery-powered, mains-powered (cross out the inapplicable item)]” in order to be taken into consideration for the contract award decision in question. The evaluation criteria referred to in the questionnaire will be applied to the tender evaluation process. By way of proof, you are to submit a completed questionnaire for each tendered product/ all tendered products (cross out the inappli-*

*cable item), along with the required elements of proof. You may forego such proof if the product in question bears the January 2017 version of the Blue Angel garden tools DE-UZ 206 eco-label. Such proof can likewise be foregone if the product in question bears an equivalent eco-label that meets all labelling related minimum criteria listed in the tenderer questionnaire.*

The suggested wording in square brackets needs to be adapted or fleshed out by the relevant procurement office.

The tenderer questionnaire also makes it easier for procurement offices to assess tenders.

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<sup>14</sup> Article 121(1) German Act on Unfair Competition (GWB).

## 3. Scope

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This guide applies to the following garden and landscape maintenance equipment powered by an electric motor (mains or battery) in accordance with Directive 2000/14/EC: chainsaws, garden shears, lawnmowers, electrical scythes and trimmers, garden scarifiers, garden shredders, and pole pruners.

This guide also applies to modular devices (drive units and interchangeable tools) whose tool combinations meet the requirements for Blue Angel eco-label garden tools (DE-UZ 206, January 2017 edition).

The various devices are defined in the next section.

## 4. Definitions

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- ▶ **Rated capacity:** For a five hour discharging period of a rechargeable battery, refers to minimum available capacity expressed in milliampere hours (mAh) or ampere hours (Ah).
- ▶ **Electric trimmers and scythes:**<sup>15</sup> Portable, hand-held device, used to cut and/or trim grass, weeds, bush or similar vegetation. The device's rotary cutting tool can be either rigid or flexible, and can be constructed of either metal (for cordless devices only) or plastic. The cutting tool is intended for use for purposes of cutting parallel or vertical to the ground (realized as an edge cutter).
- ▶ **A-weighted sound power level:** Sound power level P (unit of measurement: watts (W)) is a physical property of a sound source. It constitutes the amount of energy that a given apparatus has the capacity to output as sound during a given period. Sound power level LW (unit of measurement: decibels (dB)) is a mathematical variable that simplifies the task of calculating sound power levels from various sources. As a rule, noise levels are adjusted to human spectral perception, in a process known as A-weighting. Directive 2000/14/EC stipulates that manufacturers of garden tools are required to indicate the A-weighted sound power level LWA (unit of measurement: decibels (dB)),

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15 The general term “electric trimmers and scythes” is used because there is no standardized definition for these tools. The usual terms used for these products in commercial settings are as follows: grass trimmers; grass edge cutters; hedge trimmers; hedge cutters; battery-operated brush cutters; electric scythes; electric trimmers.

in a uniform fashion directly on the product.

- ▶ **Garden shredder:** A motor driven device that is operated in a stationary position and that is equipped with one or more cutting assemblies to reduce bulk organic materials to smaller pieces. As a rule, the machine has a feed intake opening through which the material is fed (possibly via an auxiliary device), a unit that crushes the material via cutting, chopping, grinding or the like, and a discharge chute through which the crushed material is discharged. A collecting device can be attached to the device.
- ▶ **Hedge trimmer:** A hand-held device with an integrated motor, used by one person to trim hedges and bushes, via one or more linear reciprocating cutter blades.
- ▶ **Pole pruner:** Hand-held device that is used to prune trees whose branches are above human height. The device's tool, which is equipped with a motorized saw chain, is mounted at the upper end of a pole or telescopic pole. Pruners are operated from the ground by guiding the machine with both hands via a handle that is mounted at the lower end of the pole or telescopic pole.
- ▶ **Candidate list:** List of SVHCs (substances of very high concern) issued by the ECHA (European Chemical Agency) that are eligible for registration.
- ▶ **Declaration of conformity:** Defined in ISO/IEC 17000 as elaboration of confirmation by a given tenderer; whereby confirmation is defined, in the said standard, as a declaration of conformity by a tenderer, resulting from an assessment-based determination that the relevant requirements are met. Given that there are no limits or restrictions on the contents of a declaration of conformity, it can pertain to the conformity of products, processes, persons, jobs, and/or management systems.
- ▶ **Chain saw:** Motorized tool equipped with a saw chain that is used to cut wood. The device consists of an integrated compact unit comprising a handle, motor and cutting tool, and is held with both hands.
- ▶ **No-load:** Regulation (EU) No 278/2009 defines no load as a state in which the input of an external power supply is connected to the mains power source, but the output is not connected to a primary load.
- ▶ **Polymer blends:** Special mixtures of two or more plastics whose properties are superior to those of its constituent plastics.
- ▶ **Polycyclic aromatic hydrocarbons (PAHs):** Polycyclic aromatic hydrocarbons (PAHs) can enter gardening tools via petroleum refining oils that are used as softeners in plastic or rubber. PAHs are carcinogenic, mutagenic and reprotoxic. They are also not readily biodegradable and can accumulate in living organisms.
- ▶ **Lawnmower:** A walk-behind or ride-on grass cutting machine or a machine with grass-cutting attachment(s) for cutting grass. The device orients itself via the ground to determine cutting

height, via wheels, air cushions, slide rails or the like. The cutting elements are rigid cutters or non-metallic threads or blades. The cutting surfaces operate approximately parallel to the ground, or in the case of cylinder mowers and riding mowers, rotate horizontally.

- ▶ **Self-discharge:** A self-acting process that causes batteries and accumulators to discharge more or less quickly, even if no consumer (current-using equipment) is connected. The self-discharge rate of a battery determines how much of its original charged capacity will be usable after the battery has been stored. Self-discharge is one of the most important characteristics of batteries and accumulators. Users need to be informed of the self-discharge properties of a given battery/accumulator in order to be able to purchase the right device for a given application.
- ▶ **Deep discharge:** State in which a cell in an accumulator is discharged in such a way that, regardless of amperage, the accumulator's voltage drops below its final discharge voltage. Deep discharge can damage batteries to varying de-

grees, depending on battery type. For example, while in lead-acid batteries sulphation can cause a loss of capacity, a lithium-ion battery may experience internal short-circuiting while being recharged. A deep discharge can even result in reversal of the polarity of the lowest-capacity cells. In some cases (depending on battery type), a single deep-discharging event can render a battery completely unusable. Particular caution is needed in situations where an electric device does not shut down automatically when the voltage supply dips below an acceptable level. Self discharge can cause certain batteries to become deeply discharged, even when not in use.

- ▶ **Garden scarifier:** A walk-behind or ride-on powered machine with an assembly to slit or scratch the surface of the lawn.

# 5. Proof of compliance

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When tendering, contracting authorities have the option to state that tenderers can demonstrate compliance with the relevant performance requirements by submitting certificates from a conformity assessment body pursuant to Article 33 Procurement Regulation<sup>16</sup> (VgV 2016) or via labels pursuant to Article 34 VgV and Article 24 UVgO 2017<sup>17</sup>).

## 5.1 Proving compliance via certification from a conformity assessment body

Pursuant to Article 33 Procurement Regulation (VgV), compliance with technical requirements can be substantiated by a conformity assessment body such as TÜV, VDE, or a certified test lab or by a certificate of conformity issued by such a body. In cases where a contracting authority stipulates that a specific conformity assessment body must issue the certification in question, such authority must also recognize certificates of conformity issued by equivalent conformity assessment bodies (Article 33(1)(sentence 2)). Contracting authorities are also required to allow other forms of proof such as manufacturers' technical documentation pursuant to Article 34(2) Procurement Regulation (VgV) 2016. This presupposes the following:

- ▶ That the tenderer does not have access to the required certifications or to proof supplied by an equivalent body; or
- ▶ That the tenderer's inability to obtain proof from a conformity assessment body by the relevant bid submission deadline was due to circumstances beyond the tenderer's control.

In both such scenarios, the burden of proof rests on the tenderer – which means that if the tenderer is unable to prove that the deliverables being offered do not meet the mandated technical requirements, the tenderer's offer will be excluded from the contract award procedure.

## 5.2 Proof via labels

Under the Procurement Regulation (VgV 2016), contracting authorities have the option to require compliance with the technical specifications of a specific label such as the Blue Angel eco-label (VgV 2016, UVgO 2017). In such cases, contracting authorities are required to accept labels that mandate equivalent requirements for the deliverables in question (Article 4 Procurement Regulation (VgV)), Article 24 (4) UVgO 2017). This applies in particular to labels from other EU

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16 Verordnung über die Vergabe öffentlicher Aufträge (Vergabeverordnung – VgV) vom 12. April 2016 (BGBl. I, p. 624).

17 Unterschwellenvergabeordnung (UVgO). Given that UVgO sets forth procedural rules, its coming into effect will be contingent upon implementation of the provisions of the amended version of the *Allgemeine Verwaltungsvorschriften zu §55 der Bundeshaushaltsordnung bzw. für die Länder* in the relevant regional-state laws. At the federal level, UVgO came into effect on 2 September 2017 (BMF-Rundschreiben vom 01.09.2017 – II A 3 - H 1012-6/16/10003:003). The German Länder plan to amend their budgetary regulations to harmonize with the coming into force of UVgO.

member states. In cases where the deliverables in question do not need to meet the totality of the requirements mandated by a given label, then the contracting authority in question must specify which labels requirements are to be met (Article 3 VgV 2016; Article 24(3) 3 UVgO 2017).

In cases where a tenderer is unable to provide, by a reasonable deadline and for reasons beyond the tenderer's control, either the required label or an equivalent thereof, the contracting authority must accept other suitable forms of proof such as technical documentation or test reports from a recognized body (Article 34(5) (Article 34(5) VgV 2016; Article 24(3) 5 UVgO 2017). In such cases it falls to the tenderer to prove that the alternative form of proof in question meets the requirements of the relevant label.

### **5.3 Recommended evidential requirements**

Exclusive verification of compliance with the performance specifications by a label, such as the Blue Angel environmental label, can only be recommended if there is a sufficient number of products from different manufacturers that bear the label. Only then, a competition amongst the tenderers can be guaranteed.

Hence when it comes to garden tools, procurement offices should first check on the Blue Angel website ([www.blauer-engel.de](http://www.blauer-engel.de)) whether a sufficient number of products (e.g. four or more) bear the Blue Angel eco-label and are commercially available. If this proves not to be the case, then in addition to the Blue Angel eco-label or equivalent eco-labels, individual substantiations should be accepted as proof of compliance with the performance specifications. Such proof can take the form of, for example, certificates from conformity assessment bodies (e.g. test-lab test results) or manufacturers' technical documentation.

The tenderer questionnaire that is annexed to this guide takes all three of these substantiation options into account, i.e. Blue Angel eco-label, equivalent label, individual substantiations.

## 6. Environmental requirements

### 6.1 Environmental requirements pertaining to contractual deliverables

#### 6.1.1 Noise emissions

##### Criterion: Minimum

**Proof of compliance: Blue Angel garden tools eco-label (DE-UZ 206, January 2017 version); equivalent label from an accredited testing organization,<sup>18</sup> along with proof of labelling of the required A-weighted sound power level, pursuant**

**to Article 11 of Directive 2000/14/EC (e.g. via a photograph of the rating plate).**

The required weighting of garden tools noise emissions in such cases relates to the labelling<sup>19</sup> of the A-weighted sound power level, in dB, pursuant to Article 11 Directive 2000/14/EC. A-weighted sound power level LWA (a) must be determined and specified as a single-figure noise emission value in accordance with the device-specific testing procedures listed in Table 1; and (b) is not to exceed the relevant test value indicated for each tool in Table 1.

Table 1:

**Test values for operating noise of garden tools**

Type of tool	Device-specific test procedure	Test values for the indicated and labelled sound power level $L_{WA}$ in dB
Chain saws	DIN EN 62841-4-1	99
Garden shears	DIN EN 62841-4-2	93
Lawnmowers	DIN EN 60335-2-77	88
Cutting width < 40 cm		91
Cutting width > 40 cm		
Electric trimmers and scythes	DIN EN 50636-2-91	91
Garden scarifiers	DIN EN 50636-2-92	92
Garden shredders	DIN EN 50434	92
Pole pruners	DIN EN 62841-4-1	95

<sup>18</sup> In such cases, an accredited testing organization is an organization that is either (a) ISO 17025-certified for the procedure; or (b) referred to in Article 15 Directive 2000/14/EC.

<sup>19</sup> Labelling of guaranteed sound power level is described in Directive 2000/14/EG, Annex IV.

### 6.1.2 Recyclable and repair-friendly product design and construction

#### Criterion: Minimum

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or manufacturer's declaration**

The tools must meet the requirements set forth in the following document: *VDI-Richtlinie 2243 "Konstruieren recyclinggerechter technischer Produkte"* and are to be designed and manufactured in such a way that the intended processes for material reuse and recycling are taken into account. Such measures include the following:

- ▶ Housing parts and large-format assemblies made of plastic need to consist of a uniform polymer (homopolymer or copolymer) so that they can be recycled, using existing technologies, for the manufacture of high-quality, durable industrial products. Polymer blends<sup>20</sup> are permitted.
- ▶ Plastic components that are intended for recycling (housing components and large-format assemblies) are to be labelled in accordance with ISO 11469.
- ▶ The main wearing parts must be easy to repair or replace. This includes easy dismantling of the tool and components and ready accessibility of wearing parts.

Recyclable and repair-friendly design and construction must take into account the relevant safety requirements for consumers. The "repair-friendliness" requirement applies to both manufacturers and repair services/service centres, and is also deemed to have been met if the relevant repairs can only be carried out using specialized tools and in special facilities.

### 6.1.3 Prohibited pollutants

#### Criterion: Evaluation

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or manufacturer declaration stating that the garden tool contains none of the substances listed in Annex III of Directive 2011/65/EU (RoHS Directive).**

The requirements set forth in the said Directive<sup>21</sup> are to be met, to the exclusion of the exceptions listed in Annex III of the Directive.

### 6.1.4 Material requirements concerning housing and housing component plastics

#### Criterion: Minimum

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, device or plastics manufacturer's declaration to the effect that the prohibited substances are not used in the device plastics. The chemical name of any flame retardants that are used – including their CAS num-**

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20 Polymer blends are special mixtures of two or more plastics whose properties are better than the properties of the constituent plastics per se.

21 Implemented in German law via Elektro- und Elektronikgeräte-Stoff-Verordnung vom 19. April 2013 (BGBl. I, p. 1111).

## **bers and rankings (H-phrases) – is to be indicated.**

In plastic constitutive components, no substances must be used that are classified as follows:

- a) category 1A and 1B carcinogens in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008<sup>22</sup>
- b) category 1A and 1B mutagenic substances, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008
- c) category 1A and 1B reprotoxins, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008
- d) substances of particular concern on any other grounds pursuant to REACH Annex XIII criteria, insofar as such substances are listed in the candidate list<sup>23</sup> in REACH Article 59(1).

Halogen containing polymers are not permitted and halogenated compounds must not be used as flame retardants. No flame retardants are to be used which, pursuant to tables 3.1 and 3.2 of Annex VI of Regulation (EC) No 1272/2008, are classified as very toxic to aquatic organisms and to which H410 is ascribed.

The following elements are exempt from this rule:

- 
- 22 Regulation (EC) No 1272/2008 Annex VI, Part 3, Table 2. The currently valid list of harmonized hazardous-substance categories and labels pursuant to Annex 1 of Directive 67/548/EEC (Dangerous Substances Directive), is available at [http://www.reach-info.de/ghs\\_verordnung.htm](http://www.reach-info.de/ghs_verordnung.htm), in the current version.
  - 23 The candidate list as at the time a new request is submitted applies. The REACH candidate list is available at <http://echa.europa.eu/web/guest/candidate-list-table>
  - 24 Ausschuss für Produktsicherheit (AfPS) (Product Safety Commission)
  - 25 [www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?\\_\\_blob=publication-file&v=4](http://www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?__blob=publication-file&v=4)

- ▶ Process related and technically unavoidable impurities;
- ▶ Fluoroorganic additives such as anti-dripping reagents that are used to improve the physical characteristics of plastics, insofar as a 0.5 weight percentage is not exceeded.
- ▶ Plastic parts weighing 25 grams or less.

## **6.1.5 Avoidance of pollutants in handles**

### **Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report pursuant to AfPS<sup>24</sup> GS 2014:01 PAK<sup>25</sup>; whereby it must be demonstrated that the AfPS category 2 requirements for “materials that do not fall into category 1 with foreseeable skin contact are met for longer than 30 seconds (long-term skin contact) or for repeated short-term skin contact,” in accordance with the “other products according to ProdSG” sub-category.**

Use of polycyclic aromatic hydrocarbons in the materials used to make handles must be avoided. It must be demonstrated that the following maximum material concentrations in handles are not exceeded:

Sum total of 18 polycyclic aromatic hydrocarbons: Less than 10 mg/kg

This total amount consists of the following polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(e)pyrene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, benzo-ghi-perylene.

### 6.1.6 Battery requirements

The requirements set forth below pertain solely to batteries in rechargeable-battery-operated garden tools.

#### 6.1.6.1 Battery removability

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, manufacturer's declaration or product documentation (with instruction manual).**

It must be possible for the user to remove or separate the rechargeable battery from the tool without damaging it.

#### 6.1.6.2 Battery capacity labelling

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or photo of the battery showing the battery's**

### **capacity in ampere hours; plus product documentation**

The capacity in ampere hours (Ah) and energy content in watt hours (Wh) are to be clearly, legibly and permanently labelled on rechargeable batteries, pursuant to Regulation (EU) No 1103/2010. The battery capacity is also to be indicated in the product documentation.

Rated capacity must also be indicated.

#### 6.1.6.3 Testing the capacity of the rechargeable battery (rated capacity)

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report from a certified testing organization<sup>26</sup>, proving that three specimens of the battery in question were analyzed and that all three meet the mandated requirements.**

Battery capacity is to be measured in accordance with the latest version of EN 61960, following an initial discharge and charging cycle (0.2 A discharge) (pursuant to section 7.3.1 "Discharge performance at 20 °C (rated capacity)" for three batteries (in accordance with EN 61960, Table 4 "Sample size") and is to equate to at least 100% of the rated capacity specified by the manufacturer. The steps required in the said standard must be repeated four times, in order for the requirement to be met.

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<sup>26</sup> Test reports must be issued by a "certified testing organization," which in such cases constitute the following: (a) test labs that meet the general requirements for the competence of testing and calibration labs pursuant to DIN EN ISO/IEC 17025; or (b) test labs of a particular tenderer or manufacturer that are certified by an independent organization as an SMT (supervised manufacture's testing laboratory).

Rated battery capacity is to be indicated.

#### 6.1.6.4 Low level of self-discharge (charge retention)

##### Criterion: Minimum

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report from a certified testing organization<sup>26</sup> (pursuant to EN 61690), proving that three specimens of the battery in question were analyzed and that all three meet the mandated requirements.**

The batteries must display a low level of self-discharge. In this regard, three different batteries (pursuant to EN 61960 sample size requirements) are to be tested under the conditions specified in the next paragraph and are to retain at least 90% of their rated capacity, as measured following the conditioning cycles. All three batteries must meet the requirements of the test procedure.

Test conditions: Battery self-discharge is to be tested in accordance with the conditions set forth in EN 61960. However, the tests must be conducted at a higher operating (ambient) temperature (40°C +/-2°C) than that indicated in EN 61960. Rechargeable batteries with an automatic discharge function must be tested for their charge retention following automatic discharge. During such tests, the batteries must be stored (separately or connected to the tool) in accordance with their anticipated use or as described in the product documentation.

Tested self-discharge must be indicated.

#### 6.1.6.5 Warranty

##### Criterion: Minimum

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or manufacturer's declaration**

The tenderer is to grant a battery warranty for the battery for a period of 24 months as from the purchase date, subject to its proper use. After this 24 month period or 500 charging cycles, the battery's residual capacity must be 80 per cent of its rated capacity.

The tenderer commits himself to ensure that replacement of batteries is possible for at least five years, as from the date upon which the production of the relevant devices ceases.

#### 6.1.6.6 Heavy-metal concentrations

##### Criterion: Minimum

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report from a certified testing organization,<sup>26</sup> proving that four specimens of the battery in question were analyzed and that all four meet the mandated requirements.**

The heavy-metal content of batteries must not exceed the limits set forth in the table below.

Table 2:

**Permissible heavy-metal concentrations in batteries**

Type of metal	Concentration
Mercury	≤ 0.1 ppm
Cadmium	≤ 1.0 ppm
Lead	≤ 5 ppm

Heavy-metal concentrations are to be determined using the methods described in UBA 2013<sup>27</sup> or EPBA/NAJ/NEMA 1998<sup>28</sup>.

**6.1.6.7 Taking back waste batteries**

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or manufacturer’s declaration**

The manufacturer’s take-back and notification obligation must be met in accordance with the Battery Act (BattG).

**6.1.6.8 General safety requirements**

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report issued by a certified testing organization<sup>26</sup> and describing the testing method used.**

Rechargeable batteries and battery cells are to meet all EN/IEC 62133 test requirements that apply to the battery in question.

**6.1.6.9 Charger no-load power consumption**

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or test report issued by a certified testing organization<sup>26</sup> pursuant to Regulation (EC) No 278/2009.**

No-load charger power consumption must meet the following requirements: ≤ 1.0 watts

Test conditions: No-load power consumption is to be measured for ten minutes at 230V ± 1%.

**6.1.6.10 Protection against over- and deep discharging of the battery**

**Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label or a test report from a certified testing organization.<sup>26</sup>**

Rechargeable batteries are to be protected against over- and deep discharging. Testing must be performed, in accordance with DIN EN 60335-2-29, using the charger in conjunction with the battery.

27 Umweltbundesamt [UBA] (2013): Überprüfung der Quecksilber-, Cadmium- und Blei-Gehalte in Batterien. Analyse von Proben handelsüblicher Batterien und in Geräten verkaufter Batterien; UBA-Texte | 09/2013. <https://www.umweltbundesamt.de/sites/default/files/medien/461/publikationen/4438.pdf>

28 European Portable Battery Association [EPBA], Battery Association of Japan [BAJ], National Electrical Manufacturers Association [NEMA] (1998): Battery Industry Standard Analytical Method for the determination of Mercury, Cadmium and Lead in Alkaline Manganese Cells Using AAS, ICP-AES and “Cold Vapour” <https://www.epbaeurope.net/wp-content/uploads/2016/09/standard-analytical-method-april-1998.pdf>

### 6.1.6.11 Charging status indicator

#### **Criterion: Minimum**

**Proof of compliance: Blue Angel eco-label for garden tools (DE-UZ 206, January 2017 version), equivalent label, or manufacturer's declaration**

During the charging process, there must be an indicator showing the charging status of the rechargeable battery (at least whether the battery is fully charged or not). This indicator must be located on the battery.

## 6.2 Tender evaluation

Tender evaluations may take into account criteria justified by the subject of the contract, such as environmental characteristics and life cycle costs.<sup>29</sup>

For electrically operated garden tools, it is recommended that the requirements set forth in section 6.1.3 be used to evaluate whether the product in question is free of harmful substances. Such evaluation should be performed using a point system or the like.

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<sup>29</sup> See Article 16(8) VOL/A; Articles 43(2) and (4) 2 & 4 UVgO 2017; Article 127 GWB 2016, in conjunction with Article 58(2) VgV 2016.

## Annex 1: Tenderer questionnaire concerning green public procurement of rechargeable battery-powered garden tools

### General information

Product name	
Manufacturer	
Tenderer	
Tenderer's address	

### Information on verification

<b>Does the product have a Blue Angel eco-label?</b>	
<p>The product being offered is certified by the January 2017 edition of the Blue Angel eco-label for garden tools (DE-UZ 206). Hence the minimum and evaluation criteria set forth in the “Requirements” section below are met. Further documents (annexes) for demonstrating compliance with the criteria set forth under “Requirements” need not be submitted. The statistics provided in response to the request for them in sections 6.2, 6.3 and 6.4 are truthful and accurate. The required proof (see the “Comments” column) is being submitted with this offer, for purposes of confirmation.</p> <p>Label use contract no.: ___</p>	<input type="checkbox"/> Yes
<b>Does the product have an equivalent label?</b>	
<p>The product being offered bears an equivalent label, which is hereby submitted with this offer for the product being offered as an alternative to the Blue Angel eco-label.</p> <p>Label name and label use contract no.: ___</p> <p>In the table contained in the “Requirements” section below, the tenderer furthermore states, by marking the checkboxes in the right-hand column of the table, that the label being submitted meets the requirements entailed by the minimum criteria set forth in this document – and that therefore such label is equivalent to the Blue Angel eco-label.</p> <p>The statistics provided in response to the request for them in sections 6.2, 6.3 and 6.4 are truthful and accurate. The required proof (see the “Comments” column) is being submitted with this offer, for purposes of confirmation.</p> <p>Insofar as the evaluation criterion set forth in section 3 is met, separate proof thereof is to be submitted (in the “Comments” column), in the event such criterion is not a constituent of the equivalent label.</p>	<input type="checkbox"/> Yes

**Does the product not have an equivalent label?**

The product being offered is certified neither by the January 2017 edition of the Blue Angel eco-label for garden tools (DE-UZ 206) nor by an equivalent label.

In the table in the “Requirements” section below, check the box in the right-hand column to confirm that the product meets the following minimum criteria and, if applicable, the attendant evaluation criteria. The required proof (see the “Comments” column) is being submitted with this offer, for purposes of confirmation. The statistics provided in response to the request for them in sections 6.2, 6.3 and 6.4 are truthful and accurate.

Yes

## Requirements

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
1	<p><b>Noise emissions</b></p> <p>The required weighting of garden tools noise emissions in such cases relates to the labelling<sup>31</sup> of the required A-weighted sound power level, in dB, pursuant to Article 11 Directive 2000/14/EC. A-weighted sound power level <math>L_{WA}</math> is to be determined and specified as a single-figure noise emission value in accordance with the device test procedures listed in the table below. The labelled A-weighted sound power level <math>L_{WA}</math> is not to exceed the counterpart test values specified in the table.</p>	<p>Minimum criterion Proof via an expert report from an accredited testing organization<sup>32</sup>, along with proof of A-weighted sound power level labelling pursuant to Article 11 Directive 2000/14/EC (e.g. via a photograph of the rating plate)</p>	<input type="checkbox"/>

<sup>30</sup> By way of proof, you have to attach the documents listed under „comments“ to the completed questionnaire.

<sup>31</sup> Labelling of guaranteed sound power level is described in Directive 2000/14/EG Annex IV.

<sup>32</sup> In such cases, an accredited testing organization is an organization that is either (a) ISO 17025-certified for the procedure; or (b) referred to in Article 15 Directive 2000/14/EC.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
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Type of garden tools	Tool-specific testing procedure	Test values for the indicated and labelled A-weighted sound power level $L_{WA}$ in dB
Chain saws	DIN EN 62841-4-1	99
Garden shears	DIN EN 62841-4-2	93
Lawnmowers Cutting width < 40 cm	DIN EN 60335-2-77	88
Cutting width > 40 cm		91
Electric trimmers and scythes	DIN EN 50636-2-91	91
Garden scarifiers	DIN EN 50636-2-92	92
Garden shredders	DIN EN 50434	92
Pole pruners	DIN EN 62841-4-1	95



**Note: You will need to modify this table in order to use it for tenders. Solely the products being procured are to be left in, and all other rows must be deleted.**

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
2	<p><b>Recyclable and repair-friendly product design and construction</b></p> <p>The devices are to meet the requirements set forth in the following document: VDI-Richtlinie 2243 “Konstruieren recyclinggerechter technischer Produkte” and must be designed and manufactured in such a way that the intended processes for material reuse and recycling are taken into account. Such measures include the following:</p> <ul style="list-style-type: none"> <li>▶ Housing parts and large-format assemblies made of plastic need to consist of a uniform polymer (homopolymer or copolymer) so that they can be recycled, using existing technologies, for the manufacture of high-quality, durable industrial products. The use of polymer blends<sup>33</sup> is allowable.</li> <li>▶ Plastic components that are intended for recycling (housing components and large-format assemblies) are to be labelled in accordance with ISO 11469.</li> <li>▶ The main wearing parts are to be easy to repair and their components are to be easy to replace. In other words, the products are to be easy to dismantle, their assemblies are to be easy to remove, and their wearing parts are to be easy to reach.</li> </ul> <p>Recyclable and repair-friendly design and construction are to be realized in such a way that user safety is assured. The requirement whereby a given product is to be “repair-friendly” pertains to both manufacturers and repair services/service centres, and is also deemed to have been met if the relevant repairs can only be carried out using specialized tools and in special facilities.</p>	<p>Minimum criterion Proof of compliance via a manufacturer’s declaration</p>	<p><input type="checkbox"/></p>

33 Polymer blends are special mixtures of two or more plastics whose properties are superior to those of its constituent plastics.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
3	<p><b>Excluded pollutants</b></p> <p>The requirements set forth in the said Directive 2011/65/EC (RoHS Directive)<sup>34</sup> are to be met, to the exclusion of the exceptions listed in Annex III of the Directive.</p>	<p>Evaluation criterion Proof, via a manufacturer's declaration, that the product contains none of the substances listed in Annex III of Directive 2011/65/EC (RoHS Directive)</p>	<input type="checkbox"/>
4	<p><b>Material requirements concerning housing and housing component plastics</b></p> <p>In plastic constitutive components, no substances are to be used that are classified as follows:</p> <p>a) category 1A and 1B carcinogens in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008<sup>35</sup></p> <p>b) category 1A and 1B mutagenic substances, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008</p>	<p>Minimum criterion Plastic or product manufacturer's declaration that the excluded</p>	<input type="checkbox"/>

34 Implemented in German law via Elektro- und Elektronikgeräte-Stoff-Verordnung vom 19. April 2013 (BGBl. I, p. 1111).

35 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, Annex VI: Harmonised classification and labelling for certain hazardous substances, Part 3: Harmonised classification and labelling tables Tables, Table 3.2. The currently valid list of harmonized hazardous-substance categories and labels pursuant to Annex 1 of Directive 67/548/EEC (Dangerous Substances Directive), is available at [http://www.reach-info.de/ghs\\_verordnung.htm](http://www.reach-info.de/ghs_verordnung.htm), in the current version.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
	<p>c) category 1A and 1B reprotoxins, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008</p> <p>d) Substances of particular concern on any other grounds pursuant to REACH Annex XIII criteria, insofar as such substances are listed in the candidate list<sup>36</sup> in REACH Article 59(1).</p> <p>Halogen containing polymers are not to be used, and halogenated compounds are not to be used as flame retardants. No flame retardants are to be used which, pursuant to tables 3.1 and 3.2 of Annex VI of Regulation (EC) No 1272/2008, are classified as very toxic to aquatic organisms and to which H410 is ascribed.</p> <p>The following elements are exempt from this rule:</p> <ul style="list-style-type: none"> <li>▶ Process related and technically unavoidable impurities</li> <li>▶ Fluroorganic additives such as anti-dripping reagents that are used to improve the physical characteristics of plastic, insofar as a 0.5 weight percentage is not exceeded.</li> <li>▶ Plastic parts weighing 25 grams or less</li> </ul>	<p>substances are not used in the device plastics. The chemical name of any flame retardants that are used – including their CAS numbers and rankings (H-phrases) – are to be indicated.</p>	

36 The candidate list as at the time a new request is submitted applies. The REACH candidate list is available at <http://echa.europa.eu/web/guest/candidate-list-table>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
5	<b>Avoidance of pollutants in handles</b>		
	<p>Use of polycyclic aromatic hydrocarbons in the materials used to make handles is to be avoided. It must be demonstrated that the following maximum material concentrations in handles are not exceeded:</p> <p>Sum total of 18 PAHs: Less than 10 mg/kg</p> <p>This total amount consists of the following polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(e)pyrene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, benzo-ghi-perylene.</p>	<p>Minimum criterion Proof via manufacturer's declaration in conjunction with a test report pursuant to AfPS<sup>37</sup> GS 2014:01 PAK<sup>38</sup>; whereby it is to be demonstrated that the AfPS category 2 requirements for "materials that do not fall into category 1 with foreseeable skin contact are met for longer than 30 seconds (long-term skin contact) or for repeated short-term skin contact," in accordance with the "other products according to ProdSG" sub-category.</p>	<input type="checkbox"/>

37 Ausschuss für Produktsicherheit (AfPS) (Product Safety Council)

38 [www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?\\_\\_blob=publication-File&v=4](http://www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?__blob=publication-File&v=4)

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
<b>6</b>	<b>Rechargeable battery requirements</b>		
6.1	Battery removability		
	<p>It must be possible for the user to remove or separate the rechargeable battery from the tool without damaging it.</p>	<p>Minimum criterion Proof via manufacturer's declaration and product documentation, with instruction manual</p>	<input type="checkbox"/>
6.2	Battery capacity labelling		
	<p>The capacity in ampere hours (Ah) and energy content in watt hours (Wh) must be clearly, legibly and permanently labelled on the battery, pursuant to Regulation (EU) No 1103/2010. The battery capacity is also to be indicated in the product documentation.</p> <p>The rated capacity is ___ Ah.</p>	<p>Minimum criterion Proof via a photo of the battery showing that the battery's capacity is indicated in ampere hours; plus product documentation</p>	<input type="checkbox"/>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
6.3	<p><b>Battery capacity testing</b></p> <p>Battery capacity is to be measured in accordance with the latest version of EN 61960, following an initial discharge and charging cycle (0.2 A discharge) (pursuant to section 7.3.1 “Discharge performance at 20 °C (rated capacity)” for three batteries (in accordance with EN 61960, Table 4 “Sample size”) for three batteries and must equate to at least 100% of the rated capacity specified by the manufacturer. The steps required in the said standard can be repeated four times, in order for the requirement to be met.</p> <p>The tested battery capacity is ___ Ah.</p>	<p>Minimum criterion Proof via a test report from a certified testing organization<sup>39</sup> indicating that three batteries were analyzed and that all three meet the mandated requirements</p>	<input type="checkbox"/>
6.4	<p><b>Low level of self-discharge</b></p> <p>The batteries must display a low level of self-discharge. In this regard, three different batteries (pursuant to EN 61960 sample size requirements) are to be tested under the conditions specified in the next paragraph and are to retain at least 90% of their rated capacity, as measured following the conditioning cycles. All three batteries must meet the requirements of the test procedure.</p>	<p>Minimum criterion Proof via a test report from a certified testing organization<sup>39</sup> indicating that three batteries were analyzed and that all three meet the mandated requirements</p>	<input type="checkbox"/>

<sup>39</sup> Test reports must be issued by a “certified testing organization,” which in such cases constitute the following: (a) test labs that meet the general requirements for the competence of testing and calibration labs pursuant to DIN EN ISO/IEC 17025; or (b) test labs of a particular tenderer or manufacturer that are certified by an independent organization as an SMT (supervised manufacture’s testing laboratory).

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
	<p>Test conditions: Battery self-discharge must be tested in accordance with the conditions set forth in EN 61960. However, the tests are to be conducted at a higher operating (ambient) temperature (40°C +/-2°C) than that indicated in EN 61960. Rechargeable batteries with an automatic discharge function must be tested for their charge retention after the automatic discharge. During such tests, the battery must be stored (separately or connected to the tool) in accordance with its anticipated use or as described in the product documentation.</p> <p>The tested self-discharge is ___ %.</p>		
6.5	<p><b>Warranty</b></p> <p>The tenderer is to grant a battery warranty for the battery for a period of 24 months as from the purchase date, subject to its proper use. After this 24 month period or 500 charging cycles, the battery's residual capacity must be 80 per cent of its rated capacity.</p> <p>The tenderer will ensure that the replacement batteries for the relevant devices are available for at least five years, as from the date upon which the production ceases.</p>	<p>Minimum criterion Proof of compliance via a manufacturer's declaration</p>	<p><input type="checkbox"/></p>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)								
6.6	<p><b>Heavy-metal concentrations</b></p> <p>The heavy-metal content of batteries must not exceed the limits set forth in the table.</p> <p>Permissible heavy-metal concentrations in batteries</p> <table border="1" data-bbox="264 690 722 876"> <thead> <tr> <th>Type of metal</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>Mercury</td> <td>≤ 0.1 ppm</td> </tr> <tr> <td>Cadmium</td> <td>≤ 1.0 ppm</td> </tr> <tr> <td>Lead</td> <td>≤ 5 ppm</td> </tr> </tbody> </table> <p>Heavy-metal concentrations must be determined using the methods described in UBA 2013<sup>40</sup> or EPBA/NAJ/NEMA 1998.<sup>41</sup></p>	Type of metal	Concentration	Mercury	≤ 0.1 ppm	Cadmium	≤ 1.0 ppm	Lead	≤ 5 ppm	<p>Minimum criterion</p> <p>Proof via a test report from a certified testing organization<sup>39</sup> indicating that at least four batteries were analyzed and that all four meet the mandated requirements</p>	<input type="checkbox"/>
Type of metal	Concentration										
Mercury	≤ 0.1 ppm										
Cadmium	≤ 1.0 ppm										
Lead	≤ 5 ppm										
6.7	<p><b>Ensuring take-back of waste batteries</b></p> <p>The manufacturer's take-back and notification obligation must be met in accordance with the German Battery Act (BattG).</p>	<p>Minimum criterion</p> <p>Proof of compliance via a manufacturer's declaration</p>	<input type="checkbox"/>								

40 Umweltbundesamt [UBA] (2013): Überprüfung der Quecksilber-, Cadmium- und Blei-Gehalte in Batterien. Analyse von Proben handelsüblicher Batterien und in Geräten verkaufter Batterien; UBA-Texte | 09/2013. <https://www.umweltbundesamt.de/publikationen/ueberpruefung-quecksilber-cadmium-blei-gehalte-in>

41 European Portable Battery Association [EPBA], Battery Association of Japan [BAJ], National Electrical Manufacturers Association [NEMA] (1998): Battery Industry Standard Analytical Method for the determination of Mercury, Cadmium and Lead in Alkaline Manganese Cells Using AAS, ICP-AES and "Cold Vapour" <https://www.epbaeurope.net/wp-content/uploads/2016/09/standard-analytical-method-april-1998.pdf>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
6.8	General safety requirements		
	Rechargeable batteries and battery cells are to meet all EN/IEC 62133 test requirements that apply to the battery in question.	Minimum criterion Proof via a test report, from a certified testing organization <sup>39</sup> , indicating the testing method that was used	<input type="checkbox"/>
6.9	Charger no-load power consumption		
	No-load charger power consumption must meet the following requirements: ≤ 1.0 watts Test conditions: No-load power consumption must be measured for ten minutes at 230V ± 1%.	Minimum criterion Proof via a test report from a certified testing organization <sup>37</sup> pursuant to Regulation (EC) No 278/2009	<input type="checkbox"/>
6.10	Protection against over- and deep discharging of the battery		
	Batteries are to be protected against over- and deep discharging. Testing must be performed, in accordance with DIN EN 60335-2-29, using the charger in conjunction with the battery.	Minimum criterion Proof via a test report from an independent testing organization <sup>39</sup>	<input type="checkbox"/>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>30</sup> (to be completed by the tenderer)
6.11	Charging status indicator		
	<p>During the charging process, there must be an indicator showing the charging status of the rechargeable battery (at least whether the rechargeable battery is fully charged or not). This indicator must be located on the battery.</p>	<p>Minimum criterion Proof of compliance via a manufacturer's declaration</p>	<input type="checkbox"/>

## Annex 2: Tenderer questionnaire concerning green public procurement of mains-powered garden tools

### Information on verification

Product name	
Manufacturer	
Tenderer	
Tenderer's address	

### Information on verification

Does the product have a Blue Angel eco-label?	
<p>The product being offered is certified by the January 2017 edition of the Blue Angel eco-label for garden tools (DE-UZ 206). Hence the minimum and evaluation criteria set forth in the “Requirements” section below are met. Further documents (annexes) for purposes of demonstrating compliance with the criteria set forth in the “Requirements” need not be submitted.</p> <p>Label use contract no.: __</p>	<input type="checkbox"/> Yes
Does the product have an equivalent label?	
<p>The product being offered bears an equivalent label, which is hereby submitted with this offer for the product being offered as an alternative to the Blue Angel eco-label.</p> <p>Label name and label use contract no.: __ In the table contained in the “Requirements” section below, the tenderer furthermore states, by marking the checkboxes in the right-hand column of the table, that the label being submitted meets the requirements entailed by the minimum criteria set forth in this document – and that therefore such label is equivalent to the Blue Angel eco-label. Insofar as the evaluation criterion set forth in section 3 is met, separate proof thereof is to be submitted (in the “Comments” column), in the event such criterion is not a constituent of the equivalent label.</p>	<input type="checkbox"/> Yes

**Does the product not have an equivalent label?**

The product being offered is certified neither by the January 2017 edition of the Blue Angel eco-label for garden tools (DE-UZ 206) nor by an equivalent label.

In the table in the “Requirements” section below, check the box in the right-hand column of the table to confirm that the product meets the following minimum criteria and, if applicable, the attendant evaluation criteria. The required proof is being submitted with this offer, for purposes of confirmation.

Yes

## Requirements

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
1	<p><b>Noise emissions</b></p> <p>The required weighting of garden tools noise emissions in such cases relates to the labelling<sup>43</sup> of the required A-weighted sound power level, in dB, pursuant to Article 11 Directive 2000/14/EC. A-weighted sound power level <math>L_{WA}</math> is to be determined and specified as a single-figure noise emission value in accordance with the device test procedures listed in the table below. The labelled A-weighted sound power level <math>L_{WA}</math> must not exceed the counterpart test values specified in the table.</p>	<p>Minimum criterion</p> <p>Proof via an expert report from an accredited testing organization,<sup>44</sup> along with proof of A-weighted sound power level labelling pursuant to Article 11 of Directive 2000/14/EC (e.g. via a photograph of the rating plate)</p>	<input type="checkbox"/>

<sup>42</sup> Proof is to be submitted in the form of the questionnaires in the documents listed under “Comments.”

<sup>43</sup> Labelling of guaranteed sound power level is described in Directive 2000/14/EG Annex IV.

<sup>44</sup> In such cases, an accredited testing organization is an organization that is either (a) ISO 17025-certified for the procedure; or (b) referred to in Article 15 Directive 2000/14/EC.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
-----	-----------	----------	--

Type of garden tools	Equipment-specific testing procedure	Test values for the indicated and labelled A-weighted sound power level $L_{WA}$ in dB
Chain saws	DIN EN 62841-4-1	99
Garden shears	DIN EN 62841-4-2	93
Rasenmäher Cutting width < 40 cm	DIN EN 60335-2-77	88
Cutting width > 40 cm		91
Electric trimmers and scythes	DIN EN 50636-2-91	91
Garden scarifiers	DIN EN 50636-2-92	92
Garden shredders	DIN EN 50434	92
Pole pruners	DIN EN 62841-4-1	95

**Note: You will need to modify this table in order to use it for tenders. Solely the products being procured are to be left in, and all other rows are to be deleted.**

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
2	<p><b>Recyclable and repair-friendly product design and construction</b></p> <p>The devices are to meet the requirements set forth in the following document: VDI-Richtlinie 2243 “Konstruieren recyclinggerechter technischer Produkte” and must be designed and manufactured in such a way that the intended processes for material reuse and recycling are taken into account. Such measures include the following:</p> <ul style="list-style-type: none"> <li>▶ Housing parts and large-format assemblies made of plastics need to consist of a uniform polymer (homopolymer or copolymer) so that they can be recycled, using existing technologies, for the manufacture of high-quality, durable industrial products. The use of polymer blends<sup>45</sup> is allowable.</li> <li>▶ Device plastic components that are intended for recycling (housing components and large-format assemblies) must be labelled in accordance with ISO 11469.</li> <li>▶ The main wearing parts of the products are to be easy to repair and their components are to be easy to replace. In other words, the products are to be easy to dismantle, their assemblies are to be easy to remove, and their wearing parts are to be easy to reach.</li> </ul> <p>Recyclable and repair-friendly design and construction are to be realized in such a way that user safety is assured. The requirement whereby a given product is to be “repair-friendly” pertains to both manufacturers and repair services/service centres, and is also deemed to have been met if the relevant repairs can only be carried out using specialized tools and in special facilities.</p>	<p>Minimum criterion Proof of compliance via a manufacturer’s declaration</p>	<p style="text-align: center;">□</p>

<sup>45</sup> Polymer blends are special mixtures of two or more plastics whose properties are better than the properties of the constituent plastics per se.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
<b>3</b>	<b>Excluded pollutants</b>		
	The requirements set forth in the said Directive <sup>46</sup> are to be met, to the exclusion of the exceptions listed in Annex III of the Directive.	Evaluation criterion Proof, via a manufacturer's declaration, that the product contains none of the substances listed in Annex III of Directive 2011/65/EC (RoHS Directive)	<input type="checkbox"/>
<b>4</b>	<b>Material requirements concerning housing and housing component plastics</b>		
	In plastic constitutive components, no substances must be used that are classified as follows: a) Category 1A and 1B carcinogens in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008 <sup>47</sup> ;	Minimum criterion Plastic or product manufacturer's	<input type="checkbox"/>

46 Implemented in German law via Elektro- und Elektronikgeräte-Stoff-Verordnung vom 19. April 2013 (BGBl. I, p. 1111).

47 Regulation (EC) No 1272/2008 Annex VI, Part 3, Table 2. The currently valid list of harmonized hazardous-substance categories and labels pursuant to Annex 1 of Directive 67/548/EEC (Dangerous Substances Directive), is available at [http://www.reach-info.de/ghs\\_verordnung.htm](http://www.reach-info.de/ghs_verordnung.htm), in the current version.

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
	<p>b) Category 1A and 1B mutagenic substances, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008</p> <p>c) Category 1A and 1B reprotoxins, in accordance with Table 3.1 of Annex VI of Regulation (EC) No 1272/2008</p> <p>d) Substances of particular concern on any other grounds pursuant to REACH Annex XIII criteria, insofar as such substances are listed in the candidate list<sup>48</sup> in REACH Article 59(1).</p> <p>Halogen containing polymers are not to be used, and halogenated compounds are not to be used as flame retardants. No flame retardants are to be used which, pursuant to tables 3.1 and 3.2 of Annex VI of Regulation (EC) No 1272/2008, are classified as very toxic to aquatic organisms and to which H410 is ascribed.</p> <p>The following elements are exempt from this rule:</p> <ul style="list-style-type: none"> <li>▶ Process related and technically unavoidable impurities;</li> <li>▶ Fluoroorganic additives such as anti-dripping reagents that are used to improve the physical characteristics of plastic, insofar as a 0.5 weight percentage is not exceeded.</li> <li>▶ Plastic parts weighing 25 grams or less.</li> </ul>	<p>declaration that the excluded substances are not used in the device plastics. The chemical name of any flame retardants that are used – including their CAS numbers and rankings (H-phrases) – are to be indicated.</p>	

<sup>48</sup> The candidate list as at the time a new request is submitted applies. The REACH candidate list is available at <http://echa.europa.eu/web/guest/candidate-list-table>

No.	Criterion	Comments	Criterion met, proof of compliance submitted <sup>42</sup> (to be completed by the tenderer)
5	<b>Avoidance of pollutants in handles</b>		
	<p>Use of polycyclic aromatic hydrocarbons in the materials used to make handles is to be avoided. It is to be demonstrated that the following maximum material concentrations in handles are not exceeded:  Sum total of 18 polycyclic aromatic hydrocarbons: Less than 10 mg/kg  This total amount consists of the following polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(e)pyrene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, benzo-ghi-perylene.</p>	<p>Minimum criterion  Proof via manufacturer's declaration in conjunction with a test report pursuant to AfPS<sup>49</sup> GS 2014:01 PAK<sup>50</sup>; whereby it is to be demonstrated that the AfPS category 2 requirements for "materials that do not fall into category 1 with foreseeable skin contact are met for longer than 30 seconds (long-term skin contact) or for repeated short-term skin contact," in accordance with the "other products according to ProdSG" sub-category.</p>	<input type="checkbox"/>




49 Ausschuss für Produktsicherheit (AfPS)

50 [www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?\\_\\_blob=publication-file&v=4](http://www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/AfPS-GS-2014-01-PAK.pdf?__blob=publication-file&v=4)





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