

## 1 | General Information and Overview

Product	Risk assessor
<p>Product name: <b>Circular saw</b></p> <p>Product category: <b>Power tools</b></p> <p>Description: <b>This is a risk assessment template for handheld electrical circular saws. It describes likely injury scenarios linked to non-conformities with the following clauses of EN 60745-2-5:2010:</b></p> <p><b>Clause 17.101 - endurance, lower guard</b>  <b>Clause 19-101 - mechanical hazards, guarding above the base plate</b>  <b>Clause 19-102 - mechanical hazards, guarding below the base plate</b>  <b>Clause 20.3 - drop test</b></p> <p><b>How to use</b>  Users of the template should select the scenario(s) corresponding to the non-conformities identified for the product under assessment. All other scenarios can be deleted.  The probabilities are estimated in the remaining scenarios.  The scenarios presented in the template are likely scenarios. Users should ensure that the scenarios are suitable, that the steps are correct and that the injury level is appropriate.</p> <p><b>Disclaimer:</b>  The template has been developed by a Joint Action working group composed of market surveillance experts. The intention is to support market surveillance officials assessing the risk with a particular product as part of a market surveillance case.  The template is not authorized or endorsed in any way and it is not binding for Member State market surveillance authorities.</p>	<p>First name:</p> <p>Last name:</p> <p>Organisation:</p> <p>Address:</p>

Product	Risk assessor
<p>The contents of the original template is subject to change without notice.</p> <p><b>Disclaimer:</b> This Risk Assessment Template arises from the Joint Market Surveillance Action on GPSD Products – JA2015, which received funding from the European Union in the framework of the 'Programme of Community Action in the field of Consumer Policy (2014-2020)'. The content of this document represents the views of the author only and it is his sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.</p>	

## 2 | Product risks - Overview

- Scenario 1 : **To be determined - A DIY person is using a circular saw with a non-compliant lower guard that doesn't close and cover the blade due to broken spring. The user completes the cut and pulls out the tool alongside his body. The blade is still rotating due to the inertia in the rotating parts. The blade is exposed (fully or partly) and cuts the user.**
- Scenario 2 : **To be determined - A DIY person is using a circular saw with a gap between the base plate and upper guard that exceeds 12 mm and without a barrier. The user holds his hand on the plank in front of the cutting line. The user feels the base plate and reacts by pulling his hand away from the tool. The user's finger hits the rotating blade and is cut.**
- Scenario 3 : **To be determined - A DIY person is using a circular saw without a riving knife. The user doesn't follow a straight path while cutting so the user experiences a kick back. The lower guard is not functioning as designed and closes on 0,3 - 1 second. The user loses control of the situation, so the tool climbs out of the groove and runs towards the body of the user. The blade cuts into the user's body or thigh.**
- Scenario 4 : **To be determined - A DIY person has plugged the circular saw into a socket outlet and left the tool on the a table. The saw falls to the floor and the housing is damaged so that live parts has become accessible. The consumer picks up the saw and switches it on without noticing the broken housing. The user touches live parts and suffers a fatal electric shock.**

## Scenario 1 : Other consumers - Rotating parts

### 1 | Product hazard

Hazard Group: **Kinetic energy**

Hazard Type: **Rotating parts**

### 2 | Consumer

Consumer type: **Other consumers - Consumers other than vulnerable or very vulnerable consumers**

### 3 | How the hazard causes an injury to the consumer

Injury scenario: **A DIY person is using a circular saw with a non-compliant lower guard that doesn't close and cover the blade due to broken spring. The user completes the cut and pulls out the tool alongside his body. The blade is still rotating due to the inertia in the rotating parts. The blade is exposed (fully or partly) and cuts the user.**

### 4 | Severity of Injury

Injury: **Laceration, cut**

Level: **2 External (deep) (>10cm long on body), (>5cm long on face) requiring stitches, Tendon or into joint, White of eye or Cornea**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	A DIY person is using a circular saw.	1
2	The lower guard doesn't comply so it doesn't close properly and cover the blade.	0
3	The user completes the cut and pulls out the tool alongside his body.	0
4	The blade is still rotating due to the inertia in the rotating parts and cuts the user.	0

Calculated probability	Overall probability	Risk of this scenario
To be determined	To be determined	Risk to be determined

## Scenario 2 : Other consumers - Rotating parts

### 1 | Product hazard

Hazard Group: **Kinetic energy**

Hazard Type: **Rotating parts**

### 2 | Consumer

Consumer type: **Other consumers - Consumers other than vulnerable or very vulnerable consumers**

### 3 | How the hazard causes an injury to the consumer

Injury scenario: **A DIY person is using a circular saw with a gap between the base plate and upper guard that exceeds 12 mm and without a barrier. The user holds his hand on the plank in front of the cutting line. The user feels the base plate and reacts by pulling his hand away from the tool. The user's finger hits the rotating blade and is cut.**

### 4 | Severity of Injury

Injury: **Laceration, cut**

Level: **2 External (deep) (>10cm long on body), (>5cm long on face) requiring stitches, Tendon or into joint, White of eye or Cornea**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	A DIY person is using a circular saw with a gap between the base plate and upper guard that exceeds 12 mm and without a barrier.	1
2	The user holds his hand on the plank in front of the cutting line.	0
3	The user feels the base plate and reacts by pulling his hand away from the tool.	0
4	The user's finger hits the rotating blade and is cut.	0

Calculated probability	Overall probability	Risk of this scenario
To be determined	To be determined	Risk to be determined

## Scenario 3 : Other consumers - Rotating parts

### 1 | Product hazard

Hazard Group: **Kinetic energy**

Hazard Type: **Rotating parts**

### 2 | Consumer

Consumer type: **Other consumers - Consumers other than vulnerable or very vulnerable consumers**

### 3 | How the hazard causes an injury to the consumer

Injury scenario: **A DIY person is using a circular saw without a riving knife. The user doesn't follow a straight path while cutting so the user experiences a kick back. The lower guard is not functioning as designed and closes on 0,3 - 1 second. The user loses control of the situation, so the tool climbs out of the groove and runs towards the body of the user. The blade cuts into the user's body or thigh.**

### 4 | Severity of Injury

Injury: **Laceration, cut**

Level: **2 External (deep) (>10cm long on body), (>5cm long on face) requiring stitches, Tendon or into joint, White of eye or Cornea**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	A DIY peron is using a circular saw without a riving knife.	1
2	The user doesn't follow a straight path while cutting so the user experiences a kick back.	0
3	The lower guard is not functioning as designed and closes on 0,3 - 1 second.	0
4	The user loses control of the situation, so the tool climbs out of the groove and runs towards the body of the user.	0
5	The blade cuts into the user's body or thigh.	0

Calculated probability	Overall probability	Risk of this scenario
To be determined	To be determined	Risk to be determined

## Scenario 4 : Other consumers - High/low voltage

### 1 | Product hazard

Hazard Group: **Electrical energy**  
Hazard Type: **High/low voltage**

### 2 | Consumer

Consumer type: **Other consumers - Consumers other than vulnerable or very vulnerable consumers**

### 3 | How the hazard causes an injury to the consumer

Injury scenario: **A DIY person has plugged the circular saw into a socket outlet and left the tool on the a table. The saw falls to the floor and the housing is damaged so that live parts has become accessible. The consumer picks up the saw and switches it on without noticing the broken housing. The user touches live parts and suffers a fatal electric shock.**

### 4 | Severity of Injury

Injury: **Electric shock**  
Level: **4 Electrocutation**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	A DIY person has plugged the circular saw into a socket outlet and left the tool on the a table.	1
2	The saw falls to the floor and the housing is damaged so that live parts becomes accessible.	0
3	The consumer picks up the saw and switches it on without noticing the broken housing.	0
4	The user touches live parts and suffers a fatal electric shock.	0

Calculated probability	Overall probability	Risk of this scenario
To be determined	To be determined	Risk to be determined