

## 1 | General Information and Overview

Product	Risk assessor
<p>Product name: <b>Haircare products</b></p> <p>Product category: <b>Electrical household appliances</b></p> <p>Description: <b>This is a PROSAFE risk assessment template for haircare products (e.g. hair dryers, curling irons, curling combs, hair straighteners, etc.) falling under the European Standard EN 60335-1 and EN 60335-2-23. It describes four likely injury scenarios for such products:</b></p> <ul style="list-style-type: none"> <li>- Clause 7: Missing warnings or instructions.</li> <li>- Clause 8: Access to live parts.</li> <li>- Clause 11 (and 19): High temperatures or emission of flames during abnormal operation.</li> <li>- Clause 19: Product emits flames or the housing melts during abnormal operation exposing live parts.</li> </ul> <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 then 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. Before finalising the risk assessment, users are reminded to do a sensitivity analysis to check the robustness of the results.</p> <p><b>Disclaimer:</b> The template has been developed by a Joint Action working group composed of</p>	<p>Organisation:</p> <p>Country: <b>COUNTRIES.NAME_</b></p>

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<p>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. 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 – JA2016, 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 - The product does not comply with EN 60335-2-23, clause 7 because it misses one or more of the prescribed warnings and instructions. The user doesn't know better but uses the product in a shower. Water comes into the product. The user is electrocuted.
- Scenario 2 : To be determined - The product does not comply with EN 60335-1 and EN 60335-2-23, clause 8 so it is possible to get in touch with live parts. The user is using the hairdryer and notices that a small object has gone stuck inside it so the user inserts a metal pin to remove it. The user accidentally touches live parts and gets an electric shock.
- Scenario 3 : To be determined - The product does not comply with EN 60335-1 and EN 60335-2-23, clauses 11 (and 19) so the product may get very hot if it is left switched on. A user is using the product and forgets to switch it off after use. The product overheats and ignites nearby combustible material. The user notices and tries to extinguish the fire. The user gets burns on the body while extinguishing the fire.



Scenario 4 :

To be determined - The product does not comply with EN 60335-1 and EN 60335-2-23, clause 19 so it gets very hot if it is left switched on. A user is using the product and forgets to switch it off after use. The product overheats and the housing is damaged so live parts become exposed. The user doesn't notice and picks up the product. The user accidentally touches the live parts. The user is electrocuted.



## Scenario 1 : Other consumers - Insufficient warning texts and symbols

### 1 | Product hazard

Hazard Group: **Product operating hazards**  
 Hazard Type: **Insufficient warning texts and symbols**

### 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: **The product does not comply with EN 60335-2-23, clause 7 because it misses one or more of the prescribed warnings and instructions. The user doesn't know better but uses the product in a shower. Water comes into the product. The user is electrocuted.**

### 4 | Severity of Injury

Injury: **Electric shock**  
 Level: **4 Electrocution**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	The product misses one or more warnings and instructions. (The risk assessment should state which warnings or instructions are missing and the subsequent steps should be modified accordingly.)	1
2	The user doesn't know better but uses the product in a shower. (The probability depends upon the general public's awareness of electrical risks.)	0
3	Water comes into the product. (The probability depends upon the construction of the product.)	0
4	The user is electrocuted. (Other outcomes are possible. The probability depends upon the construction of electric installations in the country, the construction of the bathroom, etc.)	0

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

## Scenario 2 : 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: **The product does not comply with EN 603353-1 and EN 60335-2-23, clause 8 so it is possible to get in touch with live parts. The user is using the hairdryer and notices that a small object has gone stuck inside it so the user inserts a metal pin to remove it. The user accidentally touches live parts and gets an electric shock.**

### 4 | Severity of Injury

Injury: **Electric shock**  
Level: **2 Local effects (temporary cramp or muscle paralysis)**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	The product does not comply with EN 603353-1 and EN 60335-2-23, clause 8 so it is possible to get in touch with live parts.	1
2	The user is using the hairdryer and notices that a small object has gone stuck inside it.	0
3	The user inserts a metal pin to remove the object without unplugging the appliance.	0
4	The user accidentally touches live parts. (The probability depends upon the geometry of the product and how easy it is to get in touch with life parts.)	0
5	The user gets an electric shock. (Electrocution is also a possible outcome with a different probability.)	0

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

## Scenario 3 : Other consumers - Open flames

### 1 | Product hazard

Hazard Group: **Extreme temperatures**

Hazard Type: **Open flames**

### 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: **The product does not comply with EN 603353-1 and EN 60335-2-23, clauses 11 (and 19) so the product may get very hot if it is left switched on. A user is using the product and forgets to switch it off after use. The product overheats and ignites nearby combustible material. The user notices and tries to extinguish the fire. The user gets burns on the body while extinguishing the fire.**

### 4 | Severity of Injury

Injury: **Burn/ Scald (by heat, cold, or chemical substance)**

Level: **2 2°, 6-15% of body surface**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	The product does not comply with EN 603353-1 and EN 60335-2-23, clauses 11 and 19 so the product may get very hot or emit flames if it is left switched on.	1
2	A user is using the product and forgets to switch it off after use.	0
3	The product overheats and ignites nearby combustible material. (The probability depends upon how hot the product gets. This will show from the test report.)	0
4	The user notices and tries to extinguish the fire.	0
5	The user gets burns on the body while extinguishing the fire. (Other less or more severe outcomes with other probabilities are possible. One could also imagine a scenario that results in damage to property, e.g. housefires. Such scenarios can be assessed using the Risk Assessment Methodology (RAM) as described in the document 2015-IMP-MSG-15.)	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: **The product does not comply with EN 603353-1 and EN 60335-2-23, clause 19 so it gets very hot if it is left switched on. A user is using the product and forgets to switch it off after use. The product overheats and the housing is damaged so live parts become exposed. The user doesn't notice and picks up the product. The user accidentally touches the live parts. The user is electrocuted.**

### 4 | Severity of Injury

Injury: **Electric shock**  
Level: **4 Electrocution**

### 5 | Probability of the steps to injury

Step	Step(s) to Injury	Probability
1	The product does not comply with EN 603353-1 and EN 60335-2-23, clause 19 so it gets very hot if it is left switched on. (The scenario should identify the proper subclause if possible. The subsequent steps should be modified accordingly.)	1
2	A user is using the product and forgets to switch it off after use.	0
3	The product overheats and the housing is damaged so live parts become exposed. (The probability depends upon the actual temperatures. This can be seen in the test report.)	0
4	The user doesn't notice and grabs the product. (The probability depends upon the location of the exposed live parts on the product.)	0
5	The user accidentally touches the live parts. (The probability depends upon the location of the exposed live parts on the product.)	0
6	The user is electrocuted. (Other outcomes with different probabilities are possible.)	0

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