

# Risk Assessment for RAPEX

## General Information

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### Product

Product name: Telescopic ladders

Product category: Climbing equipment

Description: This is a PROSAFE risk assessment template for telescopic ladders for use in residential areas. Their most common use is presumed to be cleaning windows on 1st floor (at a height of 3 meters). It describes likely injury scenarios for the most common and risky non-compliances for telescopic ladders.

The scenarios consider the following non-compliances:

- Inadequate ladder locks, one-sided
- Inadequate ladder locks, double-sided
- Sideways stability

### How to use

Users should select those scenarios that correspond to the non-compliances identified in the product under assessment.

All other scenarios are deleted.

The probabilities are estimated in the remaining scenarios.

Users are reminded that the scenarios presented in the template are likely scenarios. Users should always assure that the scenarios do indeed give a good representation of the situation that is being assessed. This includes among other things checking that the scenario is suitable, that the steps are correct and that the injury level is appropriate.

### Disclaimer

The template has been developed by a PROSAFE 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.

The contents of the original template is subject to change without notice.

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### **Product risks - Overview**

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- Scenario 1 : **Risk to be determined** - A person climbs the ladder to a height of 3 meters. The ladder lock breaks or collapses on one side. The person loses balance, falls and gets multiple fractures.
- Scenario 2 : **Risk to be determined** - A person climbs the ladder. The locks on both side break or collapse. The ladder folds with the person on it. One or more fingers of the user are trapped and amputated.
- Scenario 3 : **Risk to be determined** - A person stands on the ladder at a height of three meters (level of the person's feet). The person reaches to clean windows to one side. The ladder is unstable and starts to slide sideways. The person falls down and breaks a leg.

Overall risk : **Risk to be determined**

# Scenario 1 : Other consumers - Low mechanical stability

## Product hazard

Hazard Group: Potential energy  
Hazard Type: Low mechanical stability

## Consumer

Consumer Type: Other consumers - Consumers other than vulnerable or very vulnerable consumers

## How the hazard causes an injury to the consumer

Injury scenario: A person climbs the ladder to a height of 3 meters. The ladder lock breaks or collapses on one side. The person loses balance, falls and gets multiple fractures.

## Severity of Injury

Injury: Fracture  
Level: 3 Ankle  
Leg (femur and lower leg)  
Hip  
Thigh  
Skull  
Spine (minor compression fracture)  
Jaw (severe)  
Larynx  
Multiple rib fractures  
Blood or air in chest

## Probability of the steps to injury

	Step(s) to Injury	Probability
Step 1:	The person climbs the ladder to a height of 3 meters (level of the person's feet - the normal height of first floor, most common situation).	
Step 2:	The locks break on one side. The probability can be determined from the the force required to break the lock as measured in the test report.	
Step 3:	The ladder topples.	
Step 4:	The person falls down and suffers multiple fractures. (Normally the probability for smaller fractures or concussion is higher than the probability of getting very severe injuries.)	

**Calculated probability:**

**To be determined**

**Overall probability:**

**To be determined**

**Risk of this scenario:**

**Risk to be determined**

## Scenario 2 : Other consumers - Low mechanical stability

### Product hazard

Hazard Group: Potential energy  
Hazard Type: Low mechanical stability

### Consumer

Consumer Type: Other consumers - Consumers other than vulnerable or very vulnerable consumers

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

Injury scenario: A person climbs the ladder. The locks on both side break or collapse. The ladder folds with the person on it. One or more fingers of the user are trapped and amputated.

### Severity of Injury

Injury: Amputation  
Level: 3    Finger(s)  
                  Toe(s)  
                  Hand  
                  Foot  
                  (Part of) Arm  
                  Leg  
                  Eye

### Probability of the steps to injury

	Step(s) to Injury	Probability
Step 1:	The persons climbs the ladder.	
Step 2:	The ladder locks break or collapse in both sides. (The probability can be estimated from the breaking force as measured in the test report.)	
Step 3:	The ladder folds (collapses).	
Step 4:	The upper steps of the ladder hits the user's fingers. One or more fingers are amputated.	

**Calculated probability:**

To be determined

**Overall probability:**

To be determined

**Risk of this scenario:**

Risk to be determined

## Scenario 3 : Other consumers - Low mechanical stability

### Product hazard

Hazard Group: Potential energy  
Hazard Type: Low mechanical stability

### Consumer

Consumer Type: Other consumers - Consumers other than vulnerable or very vulnerable consumers

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

Injury scenario: A person stands on the ladder at a height of three meters (level of the person's feet). The person reaches to clean windows to one side. The ladder is unstable and starts to slide sideways. The person falls down and breaks a leg.

### Severity of Injury

Injury: Fracture  
Level: 3 Ankle  
Leg (femur and lower leg)  
Hip  
Thigh  
Skull  
Spine (minor compression fracture)  
Jaw (severe)  
Larynx  
Multiple rib fractures  
Blood or air in chest

### Probability of the steps to injury

	Step(s) to Injury	Probability
Step 1:	The persons stands on the ladder at a height of 3 meters (level of the person's feet - normal height of first floor). Probability = 1, normal use.	1
Step 2:	The person reaches to one side. Probability = 1, normal use.	1
Step 3:	The ladder slides sideways. (The probability can be estimated examining the results in the test report.)	
Step 4:	The person notices too late and cannot correct.	
Step 5:	The ladder topples, and the person falls and breaks a leg.	

**Calculated probability:**

**To be determined**

**Overall probability:**

**To be determined**

**Risk of this scenario:**

**Risk to be determined**