

# Rowan

Plant part: Fruit

Scientific name: *Sorbus aucuparia*

INCI name: Sorbus Aucuparia Fruit Extract

IECIC 2015 name: SORBUS AUCUPARIA FRUIT EXTRACT



# Rowan



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**Product Name: Rowan**

**Plant Name: Rowan**

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Growing up to 15 meters tall and living for up to 200 years, rowans, also known as service-trees are shrubs or trees that are native throughout the Northern Hemisphere, with many endemic variants in the UK. Once grown in gardens for protecting against mythical spirits, rowan is nowadays used for making jams and furniture.

It is still considered taboo to cut down rowan trees in Scotland. Rowan is a popular garden tree, not only do their berries attract birds, but rowan is an ornamental tree with silver-brown bark, leaves that turn bright red in autumn and bright white flowers in the spring.

# Active Ingredients

## Antibacterial Activity

Sorbic acid has been directly linked to reducing the effects of microbial and bacterial agents on the skin and in the body. Therefore, in cosmetic use, Rowan berry extracts are occasionally used as an antibacterial and antimicrobial booster.



## Antioxidant, Antimicrobial.

In the present study, rowanberries were characterized for their phenolic composition and screened for antioxidant, antimicrobial, and antiadhesive activities.

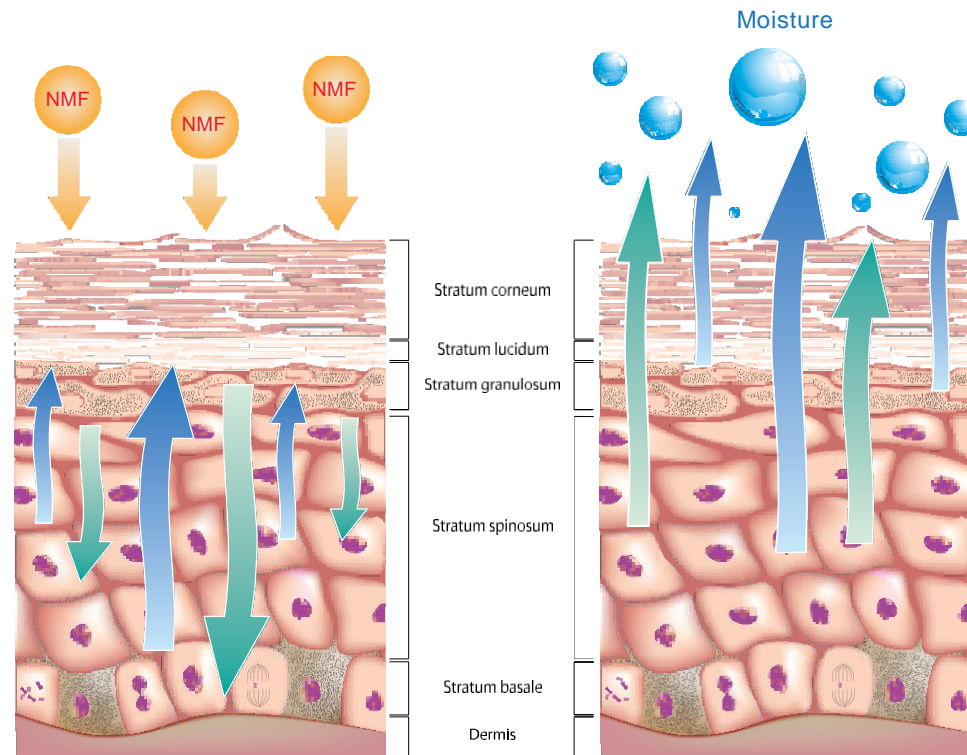
The phenolics derived from rowanberries were significantly effective at inhibiting lipid oxidation both in liposomes and in emulsions.



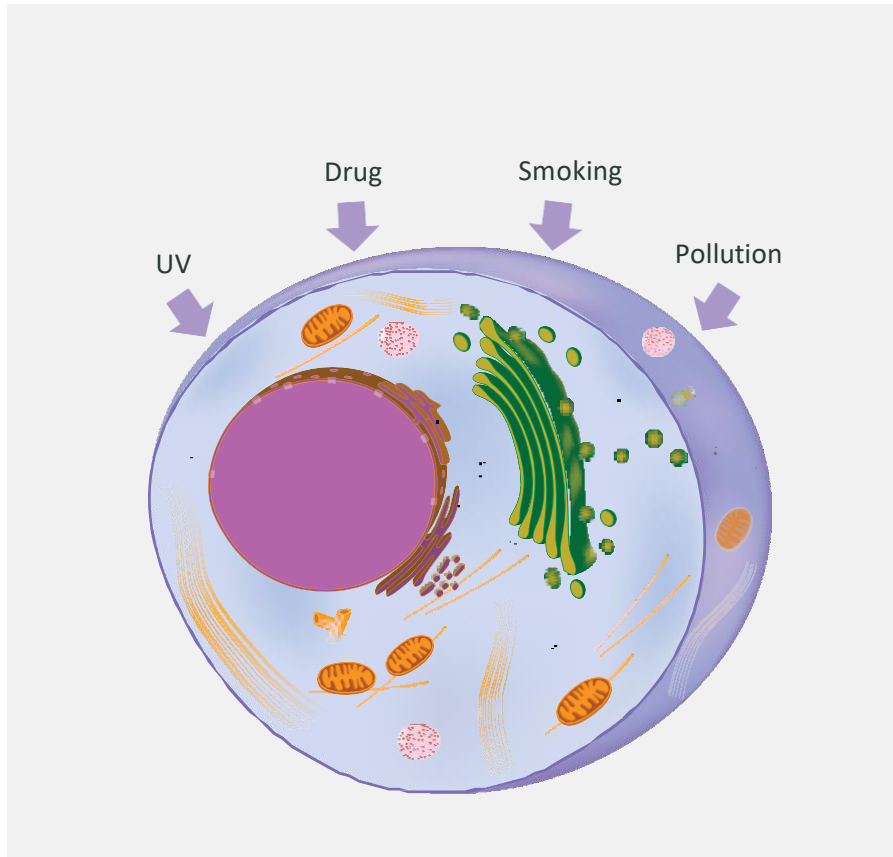
# Skin Structure

The retention of water in the Stratum corneum (SC) is dependent on two major components:

(1) the presence of natural hygroscopic agents within the corneocytes (collectively referred to as natural moisturizing factor) and (2) the SC intercellular lipids orderly arranged to form a barrier to transepidermal water loss (TEWL). The water content of the SC is necessary for proper SC maturation and skin desquamation. Increased TEWL impairs enzymatic functions required for normal desquamation resulting in the visible appearance of dry, flaky skin.



# Antioxidants



## ***Why are they important?***

Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS).

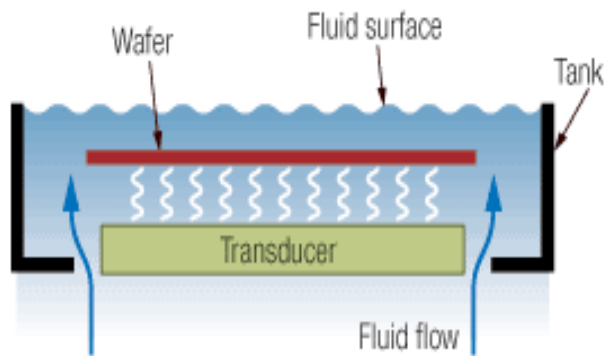
Antioxidants from Rowan can inhibit the generation of ROS and in turn inhibit cellular damage.

# Extraction technology application

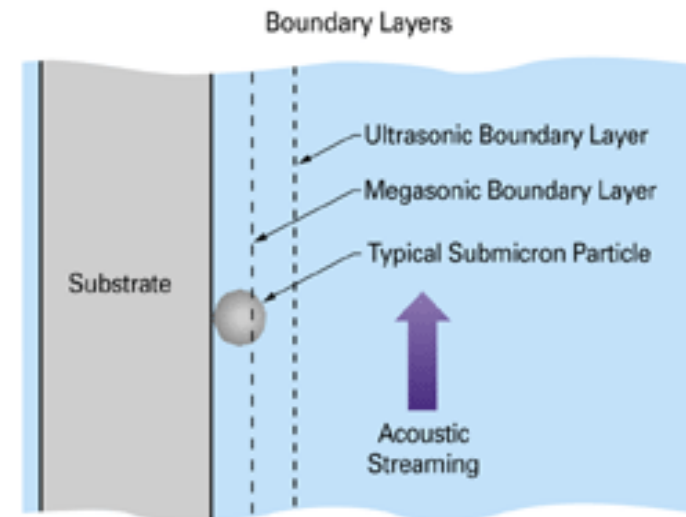
## ◆ Applications of Megasonic Wave for extraction

### · Cleaning semiconductors

- Removing micro- or nanoparticles of up to 34-nm size by 600 kHz ~ 4 MHz waves
- Efficient and highly sensitive washing without damaging wafers



**Figure 2.** Single-wafer megasonic concept



**Figure 3.** Comparison of boundary layer in ultrasonic and megasonic cleaning.

## Reported functions

INCI Name	SORBUS AUCUPARIA FRUIT EXTRACT
<b>Description</b>	Sorbus Aucuparia Extract is an extract of the berries of the Mountain Ash, Sorbus aucuparia L., Rosaceae
INN Name	
Ph. Eur. Name	
CAS #	84776-90-9
EC #	284-017-0
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	<ul style="list-style-type: none"> <li>• <a href="#">SKIN CONDITIONING</a></li> </ul>
SCCS opinions	
Identified INGREDIENTS or substances e.g.	

Source: European Commission [[https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details\\_v2&id=58433](https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=58433)]

## Product Information

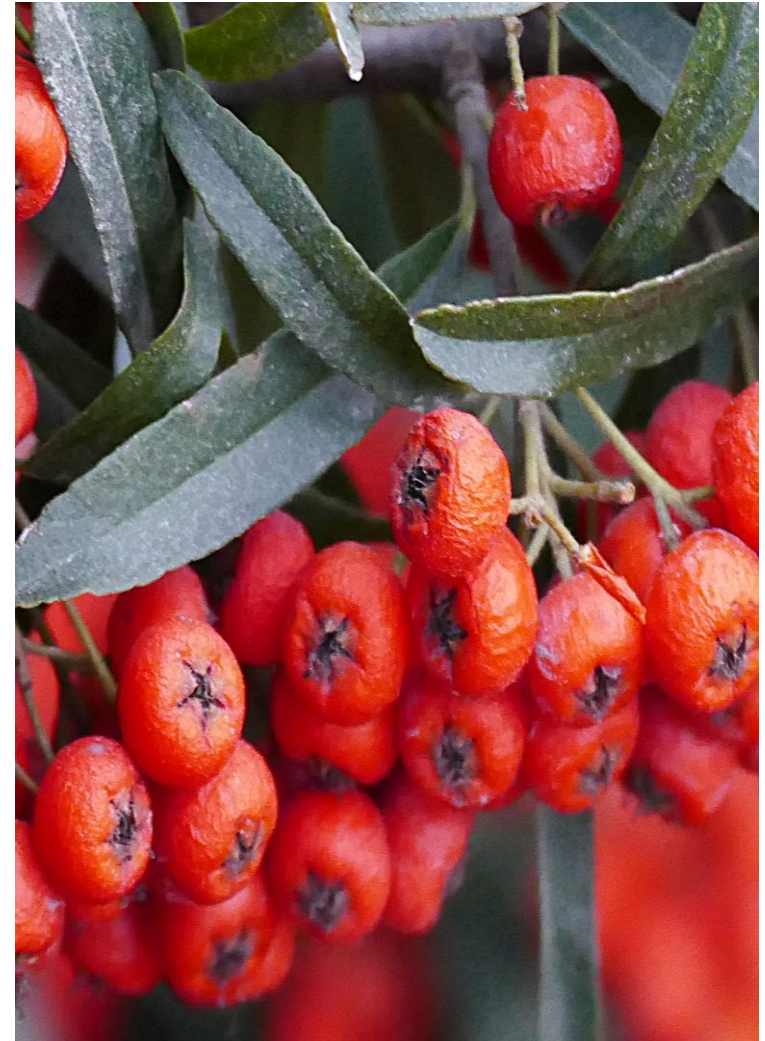
**Product Name :** Rowan

**INCI name :** Sorbus Aucuparia Fruit Extract

**Dosage :** 1 – 3%

**Formulation :** Add to the formulation  
when the temperature is lower than 55°C.  
Recommended to add after the cooling  
process.

**Storage :** Avoid direct light or UV.  
Keep it in a cool and dry area.







## The Secrets of Caledonia

The Secrets of Caledonia (TSOC) is a supplier of natural cosmetic ingredients inspired by Scottish traditional herbal medicine. Taking advantage of Scotland's biodiversity and working in collaboration with established Scottish herbalists, we aim to provide the most effective and innovative natural ingredients at the highest quality.



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