

## Product Data Sheet

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### Apyrum 201 Liquid

This is a product data sheet regarding the products:

**Apyrum 201**

**Apyrum 201 WA**

**(and Apyrum 201 Heavy, Apyrum 201 Bio-FR Canvas)**

### Product Description

The flame retardant Apyrum 201 Liquid product family is an additive formulated to provide a system that offers a unique combination of advantages:

- High performance flame retardant properties such as smoke reduction, reduction in heat release, and self-extinguishing attributes
- Environmentally friendly during its entire life cycle

Apyrum 201 Liquid is a water-based solution. It is an environmentally-friendly system that consists mainly mix of potassium salts. All components of Apyrum can be classified and approved as food additives.

The versatility of the Apyrum system allows Apyrum to be tailored to a specific application. Apyrum Liquid can be used in many types of natural and synthetic materials and fibres such as wood, paper, fabrics and technical textiles.

Apyrum Liquid can be used in many different industrial applications such as building and construction materials, furniture, woven and non-woven fabrics, paper and board and more.

Apyrum Liquid may also be used in combination with other systems to provide further improvement of existing flame-retardant properties.

### System Description

Apyrum is a flame and fire retardant preparation that will alter a materials behaviour in fire. It is acting as a char promotor and creates a protecting layer of char on the surface if the material. By adding Apyrum to your material in the right way you can make your material hard to ignite or self extinguishing, without altering the materials initial properties to much.

Apyrum is an intumescent flame retardant system that functions in multiple ways depending on the material and prevailing conditions; these functions include:

- Endothermic reaction with thermal energy absorption
- Intumescent / charring reaction which also prevents dripping
- Production of a char layer insulation
- Smoke suppressant

## Typical Physical Properties

Properties / Product	Apyrum 201-50 (Apyrum 201 Heavy)	Apyrum 201-WA50	Apyrum 201-30	Apyrum 201-WA30 (Apyrum Bio-FR Canvas)
<b>General usage:</b>	Industrial or general use	Industrial use	Fabric, textile and impregnation applications, spray-on	Fabric, textile and impregnation applications, spray-on
<b>Density (g/cm<sup>3</sup>):</b>	1,35	1,35	1,18	1,18
<b>Active substance content (wt%):</b>	50%	50%	30%	30%
<b>pH:</b>	7,5	7,5	7,5	7,5
		Wetting agent to improve penetration and reduce surface tension of the liquid		Wetting agent to improve penetration and reduce surface tension of the liquid
<b>Appearance:</b>	Transparent to slightly yellowish liquid			
<b>Odour:</b>	Odourless to slight smell of vinegar			
<b>Solubility in water:</b>	Apyrum 201 is fully miscible in water			
<b>Melting point (°C):</b>	The dry salt does not melt			
<b>Flame point (°C):</b>	Does not burn			
<b>Boiling point (°C):</b>	Over 100°C			
<b>Flash point:</b>	Not applicable			
<b>Flammability:</b>	Not flammable			

Other modifications and adjustments are possible, such as pH-value, surfactants, pigments and other process additives.

## Stability & Reactivity

Please see MSDS.

Materials to avoid: Inorganic chlorine compounds, acids or bases.

Hazardous decomposition products: Not known

## Handling & Storage

Please refer to MSDS

Handling: The contents of an opened package are influenced by air moisture and should be handled according to technical specifications.

Storage: Keep tightly capped until used. Handle in a well-ventilated area if there is risk for dust or when the product is dissolved in water.

Requirement for storage and packing: Keep in an area having a dry, stable temperature.

## Shipping Information

Packaging sizes:	1 litre bottles, 5 or 15 litre drums, 200 litre barrels and 1000 litre IBC containers
Transportation classification:	Non-dangerous goods
Minimum purchase order:	Available from <a href="http://www.deflamo.com">www.deflamo.com</a> or sales or customer service

These properties are general and do not constitute a specification either in part or as a whole. Specification data is available on request from DEFLAMO sales, customer service, or customer technical service.

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