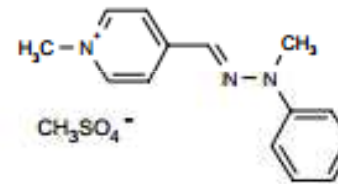


# BASIC YELLOW 87

VALUTAZIONE DEL RISCHIO  
In prodotti coloranti per capelli

# Caratteristiche chimico fisiche

- 1-methyl-4-((methylphenylhydrazono)methyl)-pyridinium, methylsulfate
- pyridinium, 1-methyl-4-((methylphenylhydrazono)methyl) methylsulfate
- CAS: 68259-00-7
- EC: 269-503-2
- Structural formula
- Physical form : Yellow solid
- Molecular weight: 337.4 g/mol (methosulfate)
- Solubility : Water: 40 g/l at 20 °C
- Partition coefficient (Log Pow) : Log Po/w: - 1.69 (OECD 107, flash-shaking method)



# Function and uses

Basic Yellow 87 (MIP YELLOW 2982) is used at concentrations up to 2% in oxidative hair dyeing systems (which after mixing in a 1:1 ratio with hydrogen peroxide just prior to use, corresponds to a concentration of 1% upon application) and up to 1% in non-oxidative hair dyeing systems

# Acute oral toxicity

The study results indicate a median lethal dose between 500 and 1000 mg/kg bw in female and >1500 mg/kg bw in males, respectively

# Acute dermal toxicity

There were no signs of dermal toxicity.

# Skin irritation - Mucous membrane irritation -Sensitization

- No findings of erythema or oedema were noted in any of the animals. The test article was non-irritating to rabbit skin.
- It was moderately irritating to rabbit eyes under conditions of this study.
- None of the animals showed any reaction. Under the test conditions, Basic Yellow 87 was not a sensitiser

# ADME after oral and dermal administration, rat

ADME after oral and dermal administration, rat: The high extent of faecal excretion, mainly as unchanged B117 confirms the low extent of absorption after oral exposure.

After dermal exposure, B117 was also poorly absorbed  
Absorbed doses of the relevant cation of Basic Yellow 87 :  
0.315  $\mu\text{g}/\text{cm}^2$  (oxidative)

0.38  $\mu\text{g}/\text{cm}^2$  (non-oxidative conditions) are absorbed.  
These values may be used in calculating the MOS

# MoS

## CALCULATION OF THE MARGIN OF SAFETY

### Basic Yellow 87 (non-oxidative conditions)

Absorption through the skin	A (mean + 1SD)	=	0.38 (cation) $\mu\text{g}/\text{cm}^2$
Skin Area surface	SAS ( $\text{cm}^2$ )	=	580 $\text{cm}^2$
Dermal absorption per treatment	SAS x A x 0.001	=	0.22 mg
Typical body weight of human		=	60 kg
Systemic exposure dose (SED)	SAS x A x 0.001/60	=	0.0037 mg/kg
No Observed Adverse Effect Level bw (sub-chronic toxicity, oral, rats)	NOAEL	=	6.76 (cation) mg/kg
Adjustment for 10% bioavailability	NOAEL adjusted	=	0.676 mg/kg bw
<b>MOS</b>		=	<b>184</b>

The MoS under oxidative conditions is very similar.