

Chemical product data sheet

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Article description

STAEDTLER Lumocolor **permanent special 319**

Constituents

Ink: Alcohol/ketone mix— e.g. ethyl alcohol, 1-methoxypropane-2-ol
Xylol and toluene are not used
 Dyestuffs – colouring agents containing toxic heavy metals are not used

Holder: Plastics:
 Barrel: PP
 Cap: PP
 Sealing (Cap): PE

PP: polypropylene, PE: polyethylene

Toxicology

Not harmful if used in the proper manner.
 STAEDTLER products are subject to comprehensive quality inspections.

Conformity

STAEDTLER Lumocolor permanent special 319 meets the standards:

ISO 11540 'Caps for writing and marking instruments intended for use by children up to 14 years of age – Safety requirements'.
 Ventilated caps reduce the danger of asphyxiation for children up to the age of 14 should caps be swallowed accidentally.

Usage notes

Marking: For many special applications such as coated surfaces, nano coatings, optical glass and laboratory glass.
 The black Lumocolor permanent special F and M can also be used for marking laundry with and for a variety of outdoor applications, e.g. as a "garden marker"
 Not suitable for use on coated surfaces whose top layer can be easily removed.
 Not suitable for use on overhead film.

Lightfast: Extremely lightfast – Testing on smooth surfaces: black for 7 years/ red for 1 year

Airplane-safe: Automatic pressure equalisation prevents the pens from leakage during flight.

Line widths: 319 S/M-9 (black) 0.4 mm
 319 M (black) 1.0 mm
 319 F-2, 319 F-9 (red and black) 0.6 mm