



IARC MONOGRAPHS



**GENTIAN VIOLET,
LEUCOGENTIAN VIOLET,
MALACHITE GREEN,
LEUCOMALACHITE GREEN,
AND CI DIRECT BLUE 218**

VOLUME 129

This publication represents the views and expert opinions of an IARC Working Group on the Identification of Carcinogenic Hazards to Humans, which met remotely, 22 February to 5 March 2021

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ON THE IDENTIFICATION
OF CARCINOGENIC HAZARDS
TO HUMANS**

SUMMARY OF FINAL EVALUATIONS

Summary of final evaluations for Volume 129

Agent	Evidence stream			Overall evaluation
	Cancer in humans	Cancer in experimental animals	Mechanistic evidence	
Gentian violet	<i>Inadequate</i>	<i>Sufficient</i>	<i>Limited</i>	Group 2B
Leucogentian violet	<i>Inadequate</i>	<i>Inadequate</i>	<i>Inadequate</i>	Group 3
Malachite green	<i>Inadequate</i>	<i>Limited</i>	<i>Limited</i>	Group 3
Leucomalachite green	<i>Inadequate</i>	<i>Sufficient</i>	<i>Limited</i>	Group 2B
CI Direct Blue 218	<i>Inadequate</i>	<i>Sufficient</i>	<i>Inadequate</i>	Group 2B