


21005 - all codes
 Except
 - 2009
 - 2209
 - 2309



Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List)
 Rapidograph Ink in Capillary Cartridges for Film

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name rotring-werke, Riepe Kg	Emergency Telephone Number 040/5496-0
Address (Number, Street, City, State, and ZIP Code) Kieler Strasse 301-303	Telephone Number for Information (201) 479-4124
D-2000 Hamburg 54	Date Prepared July 3, 1986
FEDERAL REPUBLIC OF GERMANY	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Carbon Black (1333-86-4)	3.5mg/m ³	3.5mg/m ³		10 - 15
Ethanol (64-17-5)	1000ppm	1000ppm		2 - 3
Isopropanol (67-63-0)	400ppm	400ppm		1 - 2
1-butanol (71-36-3)	100ppm	50ppm		0 - 1
Morpholine (110-91-8)	20ppm	20ppm		2 - 3
Water				65 - 75

V 875

Section III — Physical/Chemical Characteristics

Boiling Point	212°F	Specific Gravity (H ₂ O = 1)	1.08
Vapor Pressure (mm Hg.)	Unknown	Melting Point	22-25°F
Vapor Density (AIR = 1)	Unknown	Evaporation Rate (Butyl Acetate = 1)	Like Water
Solubility in Water	Miscible		
Appearance and Odor	Black liquid, butanol odor predominates		

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	130°F ASTM-D56	Flammable Limits	None	LEL	UEL
Extinguishing Media	This ink will not burn or support combustion.				
Special Fire Fighting Procedures	High temperature will evaporate the water. The residue may smoulder or burn. Water is an adequate extinguishing medium.				
Unusual Fire and Explosion Hazards	None				

Item Numbers: 21005-2001, 21005-2003, 21005-2007, 21005-2010, 21005-2013, 21005-2014, 21005-2018, 21005-2020, 21005-2025, 21005-2030, 21005-2035, 21005-2050, 21005-2101, 21005-2103, 21005-2107, 21005-2109, 21005-2113, 21005-2118, 21005-2120, 21005-2125, 21005-2150, 21005-2201, 21005-8000

Reproduce locally

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	None
Incompatibility (Materials to Avoid)			None
Hazardous Decomposition or Byproducts			None
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur -	X	None

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	LD ₅₀ (rats) >5g/Kg
Health Hazards (Acute and Chronic)			
None Expected			

Carcinogenicity:	No	NTP?	IARC Monographs?	OSHA Regulated?
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Signs and Symptoms of Exposure	Unknown
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Medical Conditions Generally Aggravated by Exposure	Unknown
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Emergency and First Aid Procedures
 Ink splashed on skin or into eyes should be washed away with copious amounts of water. Inhalation: Remove to fresh air. Ingestion: Drink water to dilute, get medical attention.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled	Wash away with soap and water.
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Waste Disposal Method	In accordance with federal, state and local regulations.
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Precautions to Be Taken in Handling and Storing
 Store at room temperature. Temperature extremes will shorten shelf-life and may cause leakage.

Other Precautions	None
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Section VIII — Control Measures

Respiratory Protection (Specify Type)			
Not needed			
Ventilation	Local Exhaust	Not needed	Special
	Mechanical (General)	Recommended	Other
		None	None
Protective Gloves	Not Needed	Eye Protection	Not Needed
Other Protective Clothing or Equipment	Not Needed		
Work/Hygienic Practices	Wash hands before eating or smoking.		