


*Retring Replacement Capillary Ink Cartridge*

*21005-2309*  


**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 Paper

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)
Phenol (108-95-2)	5 PPM	5PPM		0.8
Carbon Black (1333-86-4)	3.5mg/m <sup>3</sup>	3.5mg/m <sup>3</sup>		5-10
Ethylene Glycol (107-21-1)		50PPM		5-10
Aqueous carbon black, acrylic resin solution containing no other hazardous ingredients.				

**Section III — Physical/Chemical Characteristics**

Boiling Point °F	212	Specific Gravity (H <sub>2</sub> O = 1)	1.06
Vapor Pressure (mm Hg.)	Like Water	Melting Point	26-29
Vapor Density (AIR = 1)	Like Water	Evaporation Rate (Butyl Acetate = 1)	Like Water
Solubility in Water	Complete		
Appearance and Odor	Black liquid, mild uncharacteristic odor.		

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used)	None	Flammable Limits	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: 21005-2309

1-8-85

**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? Unlikely	Skin? Yes	Ingestion? Do not ingest.
Health Hazards (Acute and Chronic) None expected.			

Carcinogenicity:	No	NTP?	IARC Monographs?	OSHA Regulated?
------------------	----	------	------------------	-----------------

Signs and Symptoms of Exposure	Unknown
--------------------------------	---------

Medical Conditions Generally Aggravated by Exposure	Unknown
-----------------------------------------------------	---------

**Emergency and First Aid Procedures**  
 Splashes onto skin or into eyes, mouth or nose should be washed away with copious amounts of water.  
 If ingested, drink 1-2 glasses of water to dilute, get medical assistance.

**Section VII — Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material Is Released or Spilled	Wash away with water.
-----------------------------------------------------------	-----------------------

Waste Disposal Method	In accordance with federal, state, and local regulations.
-----------------------	-----------------------------------------------------------

Precautions to Be Taken in Handling and Storing	Store at room temperature - temperature extremes will lessen shelf-life and may cause leakage.
-------------------------------------------------	------------------------------------------------------------------------------------------------

Other Precautions	None
-------------------	------

**Section VIII — Control Measures**

Respiratory Protection (Specify Type)		Not Needed	
Ventilation	Local Exhaust	Not Needed	Special None
	Mechanical (General)	Sufficient	Other 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.			