

**U.S. DEPARTMENT OF LABOR**  
**Occupational Safety and Health Administration**  
**MATERIAL SAFETY DATA SHEET**

Form Approved  
 One No. 44-1187

Required under USCL Safety and Health Regulations for Ship Repairing,  
 Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

**SECTION I**

MANUFACTURER'S NAME  
**KUOH CO., LTD.**

EMERGENCY TELEPHONE NO.  
**03-777-8183**

ADDRESS (Name, Street City, State, and ZIP Code)  
**1-1-1, Nishiku, Tokyo, Japan**

CHEMICAL NAME AND SYNONYMS  
**Direct reduced carbon black powder**

CHEMICAL FAMILY  
**FORMULA**

**SECTION II - HAZARDOUS INGREDIENTS**

PAINTS, PRESERVATIVES, & SOLVENTS	% (Wt)	T.V. (Wt)	ALLOYS AND METALLIC COATINGS	% (Wt)	T.V. (Wt)
PROBERS			BASE METAL		
CATALYST			ALLOYS		
VEHICLES			METALLIC COATINGS		
SOLVENTS			FILLER METAL		
ADDITIONS			PLUS COATING OR CORE FLUX		
OTHERS			OTHERS		
HAZARDOUS MIXTURES OR OTHER LIQUIDS, SOLIDS, OR GASES					
Not applicable					

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F)		SPECIFIC GRAVITY (60-60)	
VAPOR PRESSURE (mm Hg)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE	
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR	Odorless black powder		

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (Special test)		FLAMMABLE LIMITS	
EXTINGUISHING MEDIA	Water, dry chemical		
SPECIAL FIRE FIGHTING PROCEDURES	None		
UNUSUAL FIRE AND EXPLOSION HAZARDS	None		

**SECTION V - HEALTH HAZARD DATA**

Threshold limit value: None established. Health hazard is minimal, being neither  
 irritant, corrosive, volatile, nor toxic.

There are no health hazards under normal use conditions.  
 Emergency and first aid procedures: Contact with skin: Normal washing with soap and water.  
 In eyes: Try to remove or flush out with eye drops.  
 If unsuccessful, get medical attention.

**SECTION VI - REACTIVITY DATA**

STABILITY	UNSTABLE	CONDITIONS TO AVOID	
	STABLE		X
INCOMPATIBILITY (Material to avoid)	None		
HAZARDOUS DECOMPOSITION PRODUCTS	None in normal handling and use.		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	
	WILL NOT OCCUR		X

**SECTION VII - SPILL OR LEAK PROCEDURES**

If spilled, sweep up or pick up by vacuum cleaner.  
 No special precautions. Do not try to incinerate large quantities.  
 WASTE DISPOSAL METHOD

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (Specify type)	None needed	SPECIAL	
VENTILATION	LOCAL EXHAUST	None needed	
	MECHANICAL (General)	Adequate ventilation	OTHER
PROTECTIVE GLOVES	None needed	EYE PROTECTION	None needed
OTHER PROTECTIVE EQUIPMENT	None needed		

**SECTION IX - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep containers closed.  
 Store in a cool and dry place.  
 AVOID INHALATION OF DUST.

Y. Kanazaka  
 General Manager  
 in charge of Quality Assurance  
 Overseas Service Dept.

Form OSHA-20  
 Rev. May 72

# MATERIAL SAFETY DATA SHEET

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-10107

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

### SECTION I

MANUFACTURER'S NAME: **Ricoh Co., Ltd.** EMERGENCY TELEPHONE NO: **03-777-8183**

ADDRESS: **1-9-5, Sakuragaoka, Fuchu, Tokyo, Japan**

CHEMICAL NAME AND SYNONYMS: **Resinated carbon black and iron powder** TRADE NAME AND SYNONYMS: **Ricoh DDC developer type 4000**

CHEMICAL FAMILY: **Carbon black and iron powder** FORMULA: **-**

### SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	%	TLV (lbm)	ALLYS AND METALLIC COATINGS	
			BASE METAL	TLV (lbm)
PAINTS, PRESERVATIVES & SOLVENTS				
CATALYST				
VEHICLE				
SOLVENTS				
ADDITIVES				
OTHERS				
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				
Not applicable				

### SECTION III - PHYSICAL DATA

BOILING POINT (°F)	-	SPECIFIC GRAVITY (WATER)	-
VAPOR PRESSURE (mm Hg)	-	PERCENT VOLATILE BY VOLUME (%)	-
VAPOR DENSITY (AIR=1)	-	EVAPORATION RATE	∞
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR	Odorless black powder		

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	-	FLAMMABLE LIMITS	Lim	Lim
EXTINGUISHING MEDIA	If product becomes involved in a fire, use CO2 dry chemical.			
SPECIAL FIRE FIGHTING PROCEDURES	None			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: None established. Health hazard is minimal, being neither  
None established, irritating, corrosive, volatile nor toxic.

There are no health hazards under normal use condition.

EMERGENCY AND FIRST AID PROCEDURES:  
Contact with skin: Normal washing with soap and water.  
In eyes: Try to remove or flush out with eye drops. If unsuccessful, get medical attention.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID	
	STABLE		X
INCOMPATIBILITY (Material in contact)	None		
HAZARDOUS DECOMPOSITION PRODUCTS	None		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID	
	WILL NOT OCCUR		X

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:  
If spilled, sweep up or pick up by vacuum cleaner.

WASTE DISPOSAL METHOD:  
Disposal should conform to local regulation.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	None needed.		
VENTILATION	LOCAL EXHAUST	MECHANICAL (General)	SPECIAL OTHER
	None needed.	None needed.	
PROTECTIVE GLOVES	None needed.	EYE PROTECTION	None needed.
OTHER PROTECTIVE EQUIPMENT	None needed.		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	None needed.
OTHER PRECAUTIONS	None needed.

PAGE (2) Ricoh PPG developer type 4000  
S. Shimiizu  
General manager  
P.I.P. Office

Form OSHA-20