

Staples the Office Superstore, LLC.
500 Staples Drive
Framingham, MA 01702 USA
Business Phone: 1.800.322.0912
24-HR MEDICAL AND DOT EMERGENCIES: 1.800.322.0912

MSDS #:
Hazard Rating HMIS NFPA
Health
Flammability
Reactivity
Special

MATERIAL SAFETY DATA SHEET

Complies with ANSI Z400.1 Format

SECTION 1: PRODUCT IDENTIFICATION

Product:
This MSDS applies to Product Numbers: 331531

MSDS CODE: 331531, 5/31/2011

PRODUCT NAME: Brother LC61 Black Remanufactured Inkjet Cartridge
MODEL #: SIB-R61B2
DATE ISSUED: 5/31/2011

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a black liquid with a mild odor.

CAUTION! May cause eye and skin irritation. May be absorbed through the skin to cause effects similar to inhalation. Inhalation of vapors may cause irritation, headache, nausea and central nervous system effects. Prolonged overexposure may cause damage to the liver and kidneys. Harmful if swallowed. Aspiration during swallowing or vomiting may cause lung damage.

See Section 11 for detailed health effects information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS#.	WT.%
Glycerin	56-81-5	10 - 15
2-Pyrrolidone	616-45-5	1-10
1,4-Butanediol	110-63-4	5 - 10

Refer to Section 8 for occupational exposure limits.

SECTION 4: FIRST AID MEASURES

INGESTION: Call a poison control center or doctor immediately for treatment advice. If conscious, give one 8 ounce glass of water to dilute. DO NOT induce vomiting unless directed by medical personnel. Do not give anything by mouth to or induce vomiting in a person who is unconscious or convulsing.

SKIN CONTACT: Remove contaminated clothing. Wash contact area thoroughly with soap and water until no traces of the chemical remains. Get medical attention if irritation develops or persists. Launder contaminated clothing before reuse. Discard contaminated clothing such as shoes that cannot be decontaminated.

EYE CONTACT: Flush eyes with water for 15 minutes while lifting the upper and lower lids. Get medical attention.

INHALATION: Remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: None

FLAMMABLE LIMITS: (vol % in air) LEL: 0.8%

AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide and dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus. Cool fire exposed containers and structures with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, acrolein and nitrogen oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear appropriate protective clothing as described in Section 8. Dike spill and absorb with inert material. Collect into closable containers for proper disposal. Report spill as required by local and federal regulations.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect containers from physical damage. Store in a cool, dry area away from oxidizers and other incompatible materials.

Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Remove and launder contaminated clothing before re-use. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.

OTHER PRECAUTIONS: Empty containers retain product residues and are hazardous. Follow all MSDS precautions in handling empty containers.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	CAS#.	EXPOSURE LIMITS
Glycerin	56-81-5	5 mg/m ³ TWA OSHA PEL (respirable fraction 10 mg / m ³ TWA ACGIH TLV)
2-Pyrrolidone	616-45-5	None Established
1,4-Butanediol	110-63-4	None Established

VENTILATION: Provide adequate general or local exhaust ventilation to maintain vapor concentrations below the exposure limits.

RESPIRATORY PROTECTION: Use NIOSH approved respirator with organic vapor cartridges or supplied air respirator if needed. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

EYE PROTECTION: Chemical safety goggles if splashing is possible.

PROTECTIVE CLOTHING: Nitrile rubber or other impervious gloves are recommended if contact is likely. Impervious apron, boots and other clothing are recommended if needed to prevent contact or if splashing is possible.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, an eye wash facility should be immediately available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (@760 mmHg): >212F

SPECIFIC GRAVITY (H₂O=1): 1.05

VAPOR PRESSURE: 17.5 mmHg

VAPOR DENSITY (Air=1): Heavier than air

SOLUBILITY IN WATER: Complete

APPEARANCE AND ODOR: Black liquid with a mild odor.

FREEZING POINT: Not available

COEFFICIENT of WATER/OIL: Not available

EVAPORATION RATE: < Butyl Acetate

pH: 7.0 -9.0

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: Strong oxidizing agents, strong acids and strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield carbon monoxide, carbon dioxide, nitrogen oxides and acrolein.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: May cause irritation with redness and pain.

SKIN CONTACT: Contact may cause skin irritation with redness, swelling and cracking. Widespread contact may cause absorption with symptoms similar to inhalation.

INHALATION: Vapors or mists may cause respiratory irritation with headache, dizziness, nausea, drowsiness, incoordination, euphoria, visual disturbances, fatigue, respiratory arrest and unconsciousness.

INGESTION: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, increased respiration, increased heart rate decreased urine output, severe metabolic acidosis and damage to the kidneys and liver. Aspiration into the lungs during swallowing or vomiting may cause lung damage.

CHRONIC EFFECTS of OVEREXPOSURE: Prolonged exposure may cause dermatitis. Prolonged or repeated overexposure may cause damage to the kidneys and liver. 2-pyrrolidone was found to cause birth defects in studies with laboratory animals.

CARCINOGENICITY: None of the components of this product are listed as a carcinogen by NTP, IARC or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with chronic skin, respiratory, kidney and liver disorders may be at increased risk from exposure to this material.

TOXICOLOGY DATA: Toxicity values for this chemical are:

Glycerin: Oral rat LD₅₀: 12,000 mg/kg
Skin rabbit LD₅₀: > 10,000 mg/kg
2-Pyrrolidone: Oral rat LD₅₀: 6,500 mg/kg
1,4-Butanediol: Oral rat LD₅₀: 1,830 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Glycerin: No data available
2-Pyrrolidone: EC₅₀/48 hour daphnia magna >500 mg/l
LC₅₀/48 hour golden orfe >500 mg/l
1,4-Butanediol: No data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations.

SECTION 14: TRANSPORT INFORMATION

Domestic Transportation

Dot shipping name: Not regulated
Dot hazard classification: Not regulated
Dot labels required (49cfr172.101): Not applicable
UN number: None

International Transportation

IMDG shipping name: Not regulated
IMDG class: Not regulated
UN number: Not applicable
IMDG label: None

SECTION 15: REGULATORY INFORMATION

OSHA HAZARD CLASSIFICATION: Irritant, target organ effects

EPA SARA 311 HAZARD CLASSIFICATION: Acute health, chronic health

SARA TITLE 111 SECTION 313 INFORMATION: This product contains the following chemicals that are regulated under SARA 313: None

CERCLA HAZARDOUS SUBSTANCE (40CFR 116): Not applicable

REPORTABLE QUANTITY: Not applicable

STATE R-T-K COMPOSITION INFORMATION

COMPONENT	CAS #	WT%	PA	MA
Glycerin	56-81-5	10 - 15	Y	Y
2-Pyrrolidone	616-45-5	1 - 10	Y	Y
1, 4-Butanediol	110-63-4	5 - 10	N	N

CALIFORNIA PROPOSITION 65 INFORMATION: This product contains no California Proposition 65 regulated chemicals.

WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision B (Toxic material causing other chronic effects)

SECTION 16: OTHER INFORMATION

NFPA Rating: Health = 1 Fire = 0 Reactivity = 0
HMIS Rating: Health = 1 Fire = 0 Reactivity = 0

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