



MATERIAL SAFETY DATA SHEET
REMANUFACTURED CANON PGI-220 Bk

SECTION 1: IDENTIFICATION

MANUFACTURER:	Clover Technologies Group	EMERGENCY NUMBER:	(815) 431-8100
ADDRESS:	4200 Columbus St	INFORMATION NUMBER:	(815) 431-8100
	Ottawa, IL 61350	DATE OF REVISION:	MAY 14, 2014

SECTION 2: PRODUCT COMPONENTS

INGREDIENTS	CAS#.	WT. %
2-Pyrrolidone	TRADE SECRET	1 - 10
Carbon Black	TRADE SECRET	1 - 5
Glycerin	TRADE SECRET	1 - 5

Refer to Section 8 for occupational exposure limits.

SECTION 3: HAZARDS IDENTIFICATION

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

CAUTION! May cause mild eye and skin irritation. Inhalation of vapors may cause eye irritation, headache, nausea, dizziness and other central nervous system effects. Swallowing may cause kidney damage.

See Section 11 for detailed health effects information.

SECTION 4: EMERGENCY and FIRST AID PROCEDURES

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 and EXPLOSION HAZARD DATA

FLASH POINT: None

AUTOIGNITION TEMPERATURE: Not available

FLAMMABLE LIMITS: (vol % in air) LEL: Not applicable

UEL: Not available

EXTINGUISHING MEDIA: Use media appropriate to the surrounding fire.

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, tetrahydrofuran and oxides of nitrogen.



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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.

SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION

INGREDIENTS	CAS#.	EXPOSURE LIMITS
2-Pyrrolidone	616-45-5	None Established
Carbon Black	1333-86-4	3.5 mg/m ³ TWA OSHA PEL 3.5 mg/m ³ TWA ACGIH TLV
Glycerin	56-81-5	5 mg/m ³ TWA OSHA PEL (respirable fraction)10 mg/m ³ TWA ACGIH TLV

EXPOSURE LIMITS: Use in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT: Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

PROTECTIVE CLOTHING: Use personal protective equipment to minimize exposure to skin and eye.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT (@760 mmHg): 212°F

SPECIFIC GRAVITY (H2O=1): 1.00 - 1.10

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 - 8.5

SECTION 10: STABILITY and REACTIVITY

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: Strong oxidizing agents, reducing agents, acids and strong hydrogen peroxide.

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

HAZARDOUS POLYMERIZATION: Will not occur.



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SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: May cause mild irritation with redness and tearing.

SKIN CONTACT: Prolonged contact may cause mild skin irritation.

INHALATION: Vapors or mists may cause respiratory irritation with headache, dizziness, drowsiness, narcosis, nausea, constriction of pupils, and loss of reflexes.

INGESTION: Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea, narcosis, constriction of pupils, increased blood sugar levels and loss of reflexes. May cause damage to the kidneys.

CHRONIC EFFECTS of OVEREXPOSURE: 2-pyrrolidone has been found to cause birth defects in studies with laboratory animals. Carbon black has been found to be mutagenic in some test systems.

CARCINOGENICITY: Carbon black is listed as "Possibly Carcinogenic to Humans" (Group 2B) by IARC.

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

TOXICOLOGY DATA: Toxicity values for this chemical are:

2-Pyrrolidone	Oral rat LD ₅₀ : 6,500 mg/kg
Carbon Black	Oral rat LD ₅₀ : >15,400 mg/kg
	Skin rabbit LD ₅₀ >3,000 mg/kg
Glycerin	Oral rat LD ₅₀ : 12,600 mg/kg
	Skin rabbit LD ₅₀ >10,000 mg/kg
	Inhalation rat LC ₅₀ :570 mg/m ³ /1 hour

SECTION 12: ECOLOGICAL INFORMATION

2-Pyrrolidone	EC ₅₀ /48 hour daphnia magna > 500 mg/l
	LC ₅₀ /48 hr golden orfe > 500 mg/l
Glycerin	No data available
Carbon Black	LC ₅₀ /96 hour fathead minnow > 100 mg/l
	EC ₅₀ /24 hour daphnia magna > 1,000 mg/l

SECTION 13: DISPOSAL INFORMATION

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

SECTION 14: TRANSPORTATION 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



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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

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

WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision A (Very toxic material causing other toxic effects)

SECTION 16: OTHER INFORMATION

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

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