

1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY UNDERTAKING**1.1 PRODUCT IDENTIFIER**

Product name: Brother TN110 Cyan Toner Cartridge
Part number: BRTTN110C

1.2 IDENTIFIED USES AND USES ADVISED AGAINST

For use in: This mixture is a toner used in copiers/printers.

1.3 SUPPLIER DETAILS

Supplier: Clover Technologies Group
4200 Columbus Street.
Ottawa, IL 61350
United States
Phone number: 815-431-8100
Fax: 815-461-8583
Contact Hours: 08:00AM-05:00PM CST

1.4 EMERGENCY TELEPHONE NUMBERS

Supplier: N/A

* This document provides safety-related information about toner contained in print cartridge for use in laser printer

2. HAZARDS IDENTIFICATION**2.1 INFORMATION and CLASSIFICATION**

Overview: CLP (1272/2008 Regulation) self classification of the substance/mixture: Not classified in compliance with EC No. 1272/2008 and Directive 1999/45/EEC

2.2 LABEL ELEMENTS

Applicable Pictograms:



Danger Indications: N/A

Risk Phrases: N/A

Safety Phrases: N/A

2.3 OTHER HAZARDS

PBT or vPvB: N/A

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS number	Weight %	OSHA PEL	ACGIH TLV	Other
Polyester Copolymer	TRADE SECRET	<95	No	No	
Colorants - Blue	33273-26-6	<3	No	No	
UVS	3896-11-5	<5	No	No	
Paraffin Wax	8002-74-2	<10	No	No	
Silica	68909-20-6	<3	No	No	

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

The Data Shown is in accordance with the latest Directives.

This section provides composition information for the toner powder contained in specially designed container inside of the print cartridge.

4. FIRST-AID MEASURES

4.1 FIRST AID MEASURES

4.1.1 FIRST AID INSTRUCTIONS BY RELEVANT ROUTES OF EXPOSURE

- Inhalation: Move victim to non-contaminated place in fresh air. Get medical attention if irritation or symptoms occurred. Give artificial respiration if victim is not breathing.
- Eye contact: Keep away from exposure, if exposure effect occurred. In case of contact with substance, flush eyes with amount of water for at least 15 minutes. In case of contact with chemicals, get medical advice/attention.
- Skin contact: Remove contaminated clothing and shoes. Wash skin with soap and water for at least 15 minutes. Get medical attention if skin symptoms occurred. Wash contaminated clothing and shoes before reuse.
- Ingestion: Get medical attention, if swallowed amount of substance. Get medical attention, if irritation or symptoms occurred.

4.1.2 ADDITIONAL FIRST AID INFORMATION

- Additional first aid information: N/A
- Immediate Medical Attention Required: Call 911 or emergency medical service. Get medical advice/attention if you needed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

4.2 SYMPTOMS AND EFFECTS

- Acute Symptoms from Exposure: N/A
- Delayed Symptoms from Exposure: N/A

4.3 IMMEDIATE SPECIAL TREATMENT OR EQUIPMENT REQUIRED

N/A

5. FIRE-FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Recommended Extinguishing Media: water spray, CO2, dry chemical, regular foam
Extinguishing Media Not to be Used: N/A

5.2 SPECIAL HAZARD

Unusual Fire/Explosion Hazards: Containers may explode when heated. It emits toxic fumes.
Extinguishing Media Not to be Used: N/A

5.3 ADVICE FOR FIRE FIGHTERS

Avoid inhalation of smoke. Wear protective clothing and wear self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES****6.1.1 PRECAUTIONS FOR NON-EMERGENCY PERSONNEL**

Stop leak if you can do it without risk. Isolate exposed area. Keep unauthorized personnel away. Use certified protective equipment. Ventilate the leaked area.

6.1.2 ADDITIONAL FIRST AID INFORMATION

N/A

6.1.3 PERSONAL PROTECTION

Wear personal protective equipment as described in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS

Regulatory Information: Keep product out of sewers and watercourses.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANUP

Spill or Leak Cleanup Procedures: Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Recommendations for Handling: No special precautions when used as intended. Keep containers closed, avoid creating dust. Keep away from ignition sources.

Advice on General Hygiene: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or applying cosmetics.

7.2 CONDITIONS FOR SAFE STORAGE

Avoid high temperatures, >100°F/32°C

7.3 SPECIFIC END USES

Printing devices

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

8.2 EXPOSURE CONTROLS

Respiratory protection:

IMPROPER USE OF RESPIRATORS IS DANGEROUS. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, levels of airborne contamination, and sufficient levels of oxygen.

Eye/Face Protection:

Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Hand/Skin Protection:

For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. WARNING! Air purifying respirators do not protect worker in oxygen deficient atmospheres.

Additional Protection:

N/A

Protective Clothing and Equipment:

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear splash-proof chemical goggles and face shield when working with liquid, unless full face piece respiratory protection is worn.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment. Never take home contaminated clothing.

Comments:

Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or applying cosmetics.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 DETAIL INFORMATION**

Physical state:	APPEARANCE: fluffy particles
Color:	Cyan
Odor:	None
Odor threshold:	N/A
Boiling point:	N/A
Melting point:	None but softens at about 60°C
Flash point:	N/A
Explosion limits:	N/A
Relative density:	N/A
Auto-ignition temperature:	N/A

9.2 OTHER INFORMATION

SOLUBILITY (IES): Insoluble

10. CHEMICAL STABILITY AND REACTIVITY**10.1 Reactivity:**

Reactivity Hazards: None

Data on Mixture Substances: None

10.2 Chemical Stability: The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.

10.3 Hazardous Polymerization: Stable under conditions of normal use.

10.4 Conditions to Avoid: Keep away from heat, flame, sparks and other ignition sources.

10.5 Incompatible Materials: Strong oxidising materials

10.6 Hazardous Decomposition: Will not occur.

11. INFORMATION ON TOXICOLOGICAL EFFECT

Mixtures:	N/A
Acute Toxicity:	Oral: Not classified (ATEmix= 6,779 mg/kg bw) - UVS: LD50>2,000 mg/kg bw (Rat) - WAX: LD50>4,300 mg/kg bw (Rat) Dermal: Not classified (ATEmix= 28,383 mg/kg bw) - UVS: LD50=4,350 mg/kg bw (Rat) - WAX: LD50>3,600 mg/kg bw (Rabbit) Inhalation(Dust): Not classified (ATEmix= 7.77 mg/L/4H) - UVS: LC50 >0.27 mg/L /4hr (Rat)
Skin Corrosion/Irritation:	Not classified - UVS: Some slight irritation, fully reversible within 72 hours, was observed in a skin irritation assay performed in rabbits. Therefore the substance was not a skin irritant. - WAX: not irritating (human)
Serious Eye Damage:	Not classified - UVS: Mild conjunctivitis, fully reversible within 72 hours was observed in one animal out of six in an eye irritation assay performed in rabbits. Therefore the substance was not a eye irritant. - WAX: Six animals were each treated with 0.1 ml of test substance by using Draize Test. Five of the animals showed no eye irritation. One animal showed slight conjunctival erythema and oedema after 24 hours, but caused no skin irritation.
Inhalation:	N/A
Sensitization:	Respiratory sensitization: Not classified Skin Sensitization: Not classified - UVS: The substance was not skin sensitizing. A skin sensitization assay performed in guinea pigs and patch testing in humans were negative. The substance was not a photoallergen in guinea pigs.
Mutagenicity:	Negative - UVS: In vitro: Salmonella typhimurium ames test(S. typhimurium): Negative, Chromosomal aberrations test: Negative In vivo: Dominant lethal assay: No result, Bone marrow chromosome aberration test: Negative, Micronucleus assay: Negative
Carcinogenicity:	Not classified - IARC, ACGIH, NTP, OSHA, EU Regulation 1272/2008, US EPA: not listed - UVS: Based on test results, the substance is considered to have no carcinogenic potential. - WAX: Dermal studies produced no evidence of carcinogenic effects.
Reproductive Toxicity:	Not classified - UVS: In a combined repeated dose toxicity study with reproduction/developmental toxicity screening test using rats [OECD TG 422] the substance was administered via gavage to 12 animals/sex/group at 0 (vehicle), 62.5, 250 or 1000 mg/kg bw/day. Recovery group females (6 animals/group) were dosed at 0 (vehicle), 250 or 1000 mg/kg bw/day. Males were dosed for a total of 42 days, from 14 days before mating, and females were dosed from 14 days before mating throughout the mating and pregnancy period to day 6 of lactation (44-56 days). There were no treatment-related effects at any dose in test or recovery group animals. The NOAEL for repeated dose toxicity in adult animals is 1000 mg/kg bw/day.
STOT - Single Exposure:	Not classified -WAX: The substance is irritating to the the respiratory tract.
STOT - Multiple Exposure:	Not classified -UVS: In a repeated dose oral toxicity study using dogs and mice, no treatment-related deaths or clinical signs by this substance were observed in either sex. -WAX: Rats tested for two years showed no toxic effect
Ingestion:	N/A
Hazard Class Information:	N/A
Mixture on Market Data:	N/A
Symptoms:	N/A
Delayed/Immediate Effects:	N/A
Test Data on Mixture:	N/A
Not Meeting Classification:	N/A
Routes of Exposure:	N/A
Interactive Effects:	N/A
Absence of Specific Data:	N/A
Mixture vs Substance Data:	N/A

12. ECOLOGICAL INFORMATION

- 12.1 **Eco toxicity:** Acute toxicity: Not classified Chronic toxicity: Not classified -Fish: Not classified (ATEmix= 30.54 mg/l), UVS: 96hr- LC50 [Danio rerio] > limit of water solubility -Crustacea: Not classified(ATEmix= 88.67 mg/l), UVS: 24hr- LC50 (Daphnia magna) > limit of water solubility -Algae: Not classified(ATEmix= 59.3 mg/l), UVS: 72hr- EbC50 (Desmodesmus subspicatus) > limit of water solubility
- 12.2 **Degradability:** Persistence: This substance is expected to be low persistency, due to the BCF value and the log Kow. Degradability: Not available
- 12.3 **Bioaccumulation Potential:** Bioaccumulation: bioaccumulation is expected to be low potential. - UVS: Log Kow =5.55, low potential for bioaccumulation (196-802 (0.05 mg/l), 548-895 (0.005 mg/l)) Biodegradation: It is not expected to be Biodegrade fast. -UVS: Not readily biodegradable (0%/28 day (OECD 301C)) - WAX: Ready biodegradability (78-84%/28day)
- 12.4 **Mobility in Soil:** Low potency of mobility to soil.
- 12.5 **PBT & vPvB Assessment:** N/A
- 12.6 **Other Adverse Effects:** N/A

13. DISPOSAL CONSIDERATIONS

Disposal Information:

Dispose as a solid waste in accordance with local authority regulations.
Empty container retains product residue.

Physical/Chemical Properties that affect Treatment:

Symbol: This product is not classified as dangerous
Risk Phrases: This product is not classified according to the federal, state and local environmental regulations.

Waste Treatment Information:

Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Finely dispersed particles may form explosive mixtures in air. Dispose of in compliance with federal, state, and local regulations.

Personal Protection Required:

N/A

14. TRANSPORT INFORMATION

- 14.1 **ID Number:** N/A
- 14.2 **Shipping Name:** N/A
- 14.3 **Hazard Class:** N/A
- 14.4 **Packing Group:** N/A
- 14.5 **Environmental Hazards:** N/A
- 14.6 **User Precautions:** N/A
- 14.7 **Bulk Transport:** N/A

15. REGULATORY INFORMATION

15.1 **Regulatory Information:** Korea: - Occupational Safety and Health Regulation: WAX: Occupational exposure limits listed, - Toxic Chemical Control Act: Not regulated, - Dangerous Material Safety Management Regulation;, - Wastes Control Act: WAX: Public Controlled Waste EU classification: Not Classified U.S.A management information - Register under TSCA

EPA Regulatory Information: N/A

CERCLA Reportable Quantity: N/A

15.2 **Superfund Information:**

Hazard Categories:

Immediate: N/A

Delayed: N/A

Fire: N/A

Pressure: N/A

Reactivity: N/A

Section 302 - Extremely Hazardous: N/A

Section 311 - Hazardous: N/A

15.3 **State Regulations:** N/A

15.4 **Other Regulatory Information:** UVS: Australias management information - Inventory of Chemical Substances (AICS)= Present; China management information - Inventory of Existing Chemical Substances (IECSC) = Present; Canada management information - Domestic Substances List (DSL) = Present; Philippines management information - Inventory of Chemicals and Chemical Substances (PICCS) = Present WAX: Japan management information - Existing and New Chemical Substances (ENCS) = (8)-430, (8)-414, (2)-10; China management information - Inventory of Existing Chemical Substances (IECSC) = Present; Canada management information - Domestic Substances List (DSL) = Present; Philippines management information - Inventory of Chemicals and Chemical Substances (PICCS) = Present; Australias management information - Inventory of Chemical Substances (AICS)= Present Substance of Roterdame Protocol: Not applicable/ Substance of Stockholme Protocol: Not applicable/ Substance of Montreal Protocol: Not applicable

16. OTHER INFORMATION

General Comments: This information is based on our current knowledge. It should not therefore be construed as guaranteeing specific properties of the products as described or their suitability for a particular application

Creation Date of this SDS: 05/19/2015



SAFETY DATA SHEET

Key to Abbreviations and Acronyms used in this sheet:

ACGIH = American Conference of Governmental Industrial Hygienists	NIOSH = National Institute for Occupational Safety and Health
CERCLA = Comprehensive Environmental Response Compensation and Liability Act	OSHA = Occupational Health and Safety Administration
CLP = Classification, Labeling, and Packaging	PEL = Permissible Exposure Limit
DSD = Dangerous Substances Directive	SCBA = Self Contained Breathing Apparatus
EPA = Environmental Protection Agency	STOT = Specific Target Organ Toxicity
GHS = Globally Harmonized System	TLV = Threshold Limit Value
N/A = Not Applicable	UK = United Kingdom
NFPA = National Fire Protection Association	UN = United Nations

Ref:**DISCLAIMER**

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