

Revision Date: 10-Sep-2018 Issuing Date: 12-Sep-2013

Safety data sheet number: CT413-02

Revision Number: 4

Product Name: TN-411C, TN-413C, TN-416C, TN-419C, TN-421C, TN-423C, TN-426C, TN-431C, TN-433C, TN-436C, TN-439C, TN-441C, TN-443C, TN-446C, TN-449C, TN-451C, TN-456C, TN-459C, TN-461C, TN-466C, TN-469C, TN-471C, TN-476C, TN-491C, TN-493C, TN-499C, TN-910C Toner

1. IDENTIFICATION

Product identifier

Product Name TN-411C, TN-413C, TN-416C, TN-419C, TN-421C, TN-423C, TN-426C, TN-431C, TN-

433C, TN-436C, TN-439C, TN-441C, TN-443C, TN-446C, TN-449C, TN-451C, TN-456C, TN-459C, TN-461C, TN-466C, TN-469C, TN-471C, TN-476C, TN-491C, TN-493C, TN-471C, TN-476C, TN-491C, TN-493C, TN-471C, TN-476C, TN-471C, TN-476C, TN-471C, TN-476C, TN-471C, TN-476C, TN-471C, TN-471

499C, TN-910C Toner

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

<u>Manufacturer Address</u> Brother Industries, Ltd.

15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan

Telephone (for information): +81-52-824-2735

Supplier Address Brother International Corporation

200 Crossing Boulevard, Bridgewater, NJ 08807, USA

Telephone (for information): +1-877-276-8437

Emergency telephone number

Emergency Telephone CHEMTREC +1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

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The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance

Physical state: Powder Odor: Odorless

Other Information

May be harmful if swallowed

Unknown acute toxicity

99.5 % of the mixture consists of ingredient(s) of unknown toxicity

97.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

99.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS No	Weight-%	Trade secret
Styrene-acrylate-copolymer	25767-47-9	80-90	*
Fatty acid ester	**	3-10	*
Pigment	**	3-7	*
Silicon dioxide (amorphous)	112945-52-5	1-3	*
PMMA	9011-14-7	1-3	*
Silicon dioxide (amorphous)	844491-94-7	<2	*
Styrene-acrylate Resin	**	0.1-1	*

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

** Trade secret

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

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Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact: Wash skin with soap and water. In the case of skin irritation or allergic reactions see a

physician.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms Inhalation (dust): For large quantities: May cause irritation to the respiratory system.

Increased difficulty in breathing. Sneezing. Coughing

Eye contact: May cause eye irritation

Skin contact: : Repeated and/or prolonged skin contact may cause irritation

Ingestion: May cause stomach ache. Unlikely route of exposure

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

surrounding environment.

Unsuitable extinguishing media Do not use water jet.

Specific hazards arising from the

chemical Explosion data May form explosive dust clouds in air

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Special protective equipment for

fire-fighters

Do not use high-pressure water in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with

filter type A/P may be appropriate.

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Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas

Methods and material for containment and cleaning up

Methods for containment Sweep the spilt toner or remove it with a vacuum cleaner and transfer into a sealed

container carefully. Sweep slowly to minimize generation of dust during cleanup. If a vacuum cleaner is used, the motor must be rated as dust explosion proof. Potential for very fine particles to be taken into the vacuum only to be passed back into the environment due

to pore size in the bag or filter.

Methods for cleaning upTake up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high

concentrations of dust. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

These products are cyan toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. The cartridge should be used as supplied by Brother and for use in the products stated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or

level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other

recommended limit. At this time, the other relevant constituents have no known exposure

limits from the sources listed here.

Appropriate engineering controls

Engineering controls Good general ventilation should be sufficient under normal use.

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Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls Avoid release to the environment.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical state Powder Color blue Odor Odorless

Odor threshold No information available

Property Remarks • Method Values

No data available None known Melting point / freezing point No data available None known Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability limit: No data available

Lower flammability limit: No data available

Vapor pressure No data available None known No data available None known Vapor density Relative density No data available None known

Water solubility Insoluble in water

Solubility(ies) No data available None known Partition coefficient No data available None known **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known Dynamic viscosity

None known

Explosive properties No information available Explosive limits of toner particles suspended in air

approximately equal to that of coal dust.

Oxidizing properties No information available

Other Information

No information available Softening point

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Molecular weightNo information availableVOC Content (%)No information availableLiquid DensityNo information availableBulk densityNo information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Keep away from heat. Avoid friction, sparks, or other means of ignition

Incompatible materials Strong oxidizing agents

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Product Information

Inhalation Acute LC₅₀ > 5.24 mg/l (4-hr) (OECD 436 method)

Eye contact No information available

Skin contact: No information available

Ingestion Acute $LD_{50} > 2000 \text{ mg/kg}$ (OECD 420 method)

Skin corrosion/irritation May cause slight irritation (OECD 404 method)

Serious eye damage/irritation Minimal irritant to the eye (OECD 405 method)

Respiratory or skin sensitization It is not a skin sensitizer (OECD 429 method)

Germ cell mutagenicity AMES test : Negative (OECD 471 method)

Carcinogenicity Ingredients of this product have not been classified as carcinogens according to IARC

monographs, NTP and OSHA

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12. ECOLOGICAL INFORMATION

Ecotoxicity The environmental impact of this product has not been fully investigated.

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Do not put toner or toner cartridges into a fire, this can cause fire to spread with the risk of causing burn injuries. Shred toner cartridges in a dust/explosion controlled environment. Finely dispersed particles may form explosive mixtures in the air. Dispose of in accordance

with Federal, State, and local regulations.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

<u>IATA</u> Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

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15. REGULATORY INFORMATION

International Inventories

TSCA Complies Exempt **DSL/NDSL EINECS/ELINCS** Complies **ENCS** Complies **IECSC** Complies **KECL** Complies **PICCS** Exempt **AICS** Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

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U.S. State Right-to-Know Regulations

US State RegulationsThis product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 0 Flammability 0 Instability 0 Section 9: Physical and chemical properties - HMIS Health hazards 1 Flammability 0 Physical hazards 0 Personal protection X

Issuing Date 12-Sep-2013

Revision Date 10-Sep-2018

Revision NoteNo information available.

Disclaimer

The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).

End of Safety Data Sheet