

MATERIAL SAFETY DATA SHEET

KCDS-No.

[1. PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : TN-03C toner
 MFR. REF. : TUFTONE HIC-S1-A
 MANUFACTURER : Hitachi Taga Electronics Co., Ltd.
 ADDRESS : 1-1 Higashitaga-cho 1-chome, Hitachi-shi, Ibaraki-ken 316-8502, Japan
 DIVISION : Printer Design Dept.
 TELEPHONE NO. : +81-294-36-8754
 FAX NO. : +81-294-36-8979
 EMERGENCY TELEPHONE NO.: +81-294-36-8617
 SUPPLIER : Brother Industries, Ltd.
 ADDRESS : 1-1-1, Kawagishi, Mizuho-ku, Nagoya 467-8562, Japan
 TELEPHONE NO. : +81-52-824-2545

[2. COMPOSITION/INFORMATION ON INGREDIENTS]

SUBSTANCE OR PREPARATION : Preparation

INGREDIENTS AND CONCENTRATION RANGE

Ingredients	Concentration Range(%)	CAS RN
Cyan toner		

INGREDIENTS CONTRIBUTING TO : None
 THE HAZARD(JAPAN)

[3. HAZARDS IDENTIFICATION]

MOST IMPORTANT HAZARDS :
 ADVERSE HUMAN HEALTH EFFECTS : To the best of our investigation, no special hazards have to be mentioned.
 ENVIRONMENTAL EFFECTS : To the best of our investigation, no information available.
 PHYSICAL AND CHEMICAL HAZARDS : This material is not dangerous in case of usual handling. May cause risk of dust explosion.
 CLASS NAME FOR MSDS IN JAPAN : Not applicable

[4. FIRST-AID MEASURES]

IN CASE OF EYE CONTACT : Immediately hold eyelids open and flush with a stream of water for at least 15 minutes. If necessary seek medical attention.
 IN CASE OF SKIN CONTACT : Wash material off the skin with plenty of water and soap. If necessary seek medical attention.
 IN CASE OF INHALATION : Remove person to fresh air. If necessary seek medical attention.
 IN CASE OF INGESTION : Seek medical attention. Never give anything by mouth to an unconscious person. If possible, rinse out mouth and give one or two glasses of water or milk to drink.

[5. FIRE-FIGHTING MEASURES]

EXTINGUISHING MEDIA : Water spray, powder
 NOT SUITABLE EXTINGUISHING MEDIA : No information available

- SPECIFIC HAZARDS : May produce irritating or toxic gases in a fire.
- SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media. Fight fire from upwind position if possible.
- PROTECTION OF FIREFIGHTERS : Use goggles in combination with dust mask, and another protections as appropriate to situation.

[6. ACCIDENTAL RELEASE MEASURES]

- PERSONAL PRECAUTIONS : Use mask, goggles and protective gloves.
Large spills : Remove person to safety.
Ensure adequate ventilation.
Treat from upwind position.
- ENVIRONMENTAL PRECAUTIONS : Do not discharge into the drains, surface waters or ground water directly.
- METHODS FOR CLEANING UP : Sweep or vacuum spills.
Prevent dispersion of dust.
- PREVENTION OF SECONDARY HAZARDS : No information available

[7. HANDLING AND STORAGE]

- HANDLING
- TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- PRECAUTIONS : Avoid inhalation of fine dust .
- SAFE HANDLING ADVICE : Handle in well-ventilated areas.
Use safety glasses and protective gloves as appropriate to situation.
Wash hands and face and gargle after handling.
Prevent generation of dust.
- STORAGE
- STORAGE CONDITIONS : Keep container tightly closed.
Protect from sun. Store in a well-ventilated room (under 40 C).
- PACKAGING MATERIALS : No information available

[8. EXPOSURE CONTROLS/PERSONAL PROTECTION]

- ENGINEERING MEASURES : Not required under normal use. In case of large spill, the following measures are suggested.
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Use an adequate ventilation.
- LIMIT VALUES
- ACGIH(TLV) : Not established
- OSHA(PEL) : Not established
- PERSONAL PROTECTIVE EQUIPMENT
- RESPIRATORY PROTECTION : Dust respirator
- HAND PROTECTION : Rubber gloves
- EYE PROTECTION : Safety goggles
- SKIN AND BODY PROTECTION : Full-body suit
- HYGIENE MEASURES : No information available

[9. PHYSICAL AND CHEMICAL PROPERTIES]

PHYSICAL STATES

FORM : Powder
COLOUR : Blue
ODOUR : Odourless
pH : Not applicable

SPECIFIC TEMPERATURES/TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT : No data available
MELTING POINT : No data available
DECOMPOSITION TEMPERATURE : No data available
FLASH POINT : Not applicable
AUTOIGNITION TEMPERATURE : No data available

EXPLOSION PROPERTIES

EXPLOSION : UPPER LIMIT : No data available LOWER LIMIT : No data available
VAPOUR PRESSURE : No data available
VAPOUR DENSITY : No data available
DENSITY : 1.2 g/mL (20 °C) (68 °F)
SOLUBILITY
WATER SOLUBILITY : Insoluble
SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofurane.
OCTANOL/WATER PARTITION COEFFICIENT : No data available
OTHER DATA : No data available

[10. STABILITY AND REACTIVITY]

STABILITY : Stable in general.
HAZARDOUS REACTIONS : Stable.
CONDITIONS TO AVOID : No information available
MATERIALS TO AVOID : No information available
HAZARDOUS DECOMPOSITION PRODUCTS : No information available
OTHERS : No information available

[11. TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY : Oral, rat, LD50 : > 2000 mg/kg (male, female) (Data on similar product)
LOCAL EFFECTS
CORROSIVITY : No information available
SKIN IRRITATION : No information available

EYE IRRITATION : No information available

SENSITIZATION : Guinea pig, Guinea Pig Maximization Test : Negative
(Data on similar product)

CHRONIC TOXICITY/LONG TERM TOXICITY : No information available

CARCINOGENICITY : No information available

IARC : Not established

NTP : Not established

OSHA : Not established

MUTAGENICITY : Ames test (Salmonella typhimurium TA98,TA100,TA1535,TA1537, TA1538, Escherichia coli WP2uvrA) : Negative
(Data on similar product)

TERATOGENICITY : No information available

REPRODUCTION TOXICITY : No information available

OTHER DATA : No information available

[12.ECOLOGICAL INFORMATION]

MOBILITY : No information available

PERSISTENCE/ DEGRADABILITY : No information available

BIOACCUMULATION : No information available

ECOTOXICITY

AQUATIC TOXICITY : No information available

OTHER DATA : No information available

[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".
Passed to a licensed waste contractor.

Dispose of waste in accordance with local, state and federal regulations.

[14.TRANSPORT INFORMATION]

Follow all regulations in your country or region

UN CLASS/UN NUMBER : Not applicable

PRECAUTIONS : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".
Review "HANDLING AND STORAGE (Section 7)".
Ensure containers without breakage or leakage.
Ensure containers tightly fixed.
Follow all regulations in your country or region.

[15.REGULATORY INFORMATION]

INVENTORIES : ENCS(Japan) Yes
TSCA(USA) All components are listed in TSCA inventory.
EINECS(EU) All components are listed in EINECS or ELINCS inventory.

[16.OTHER INFORMATION]
REFERENCE

- Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)
- International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)

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