Safety Data Sheet

MSDS No : TN336GE01

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1. PRODUCT AND COMPANY IDENTIFICATION

Supplier's details	:	FUJIFILM Business Innovation Corp.
	:	7-3, Akasaka 9-choume, Minato-ku,Tokyo 107-0052, Japan
Telephone number	:	+81-46-237-1686
FAX Number	:	+81-46-238-5796
E-mai	:	dge-fb-msds-admin@fujifilm.com

Product Name : ApeosPort 3410SD
ApeosPort Print 3410SD
Toner(Black)

2.HAZARD IDENTIFICATION

GHS label elements	:	Not classified as hazardous mixture of GHS classification
Precautionary statements		
General	:	Read label before use. Keep out of reach of children. If medical advice is needed,have product container or label at hand.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Hazards not otherwise classified	:	None known.
Other hazards	:	This material is considered hazardous by the OSHA Hazard Communication Standard(29 CFR 1910.1200).COMBUSTIBLE DUSTS

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Ingredient name	%	CAS Number
carbon black	≤10	1333-86-4
Charge Control Agent	≤3	Proprietary
titanium dioxide	<1	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

4.FIRST-AID MEASURES

Description of necessary first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards
Inhalation	:	No known significant effects or critical hazards
Skin contact	:	No known significant effects or critical hazards
Ingestion	:	No known significant effects or critical hazards

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

5.FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	:	Use dry chemical powder.
Unsuitable extinguishing media	:	Do not use water jet.
Specific hazards arising from the chemical	:	May form explosible dust-air mixture if dispersed.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials:
	:	carbon dioxide
	:	carbon monoxide
	:	metal oxide/oxides
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6.ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training.Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	:	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Use a broom or a wet cloth to wipe off spilled toner. (It may catch fire by electric sparks inside the vacuum cleaner and cause explosion.) Dispose of via a licensed waste disposal contractor.

Large spill	:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas.-Use a broom or a wet cloth to wipe off spilled toner. (It may catch fire by electric sparks inside the vacuum cleaner and cause explosion.) Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7.HANDLING AND STORAGE

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8.EXPOSURE CONTROLS /PERSONAL PROTECTION

Control Parameters Occupational exposure limits

Ingredient name	Exposure limits

carbon black		**ACGIH TLV (United States, 3/2017).** TWA: 3 mg/m^3 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 3.5 mg/m^3 10 hours. TWA: 0.1 mg of PAHs/cm^3 10 hours. **OSHA PEL (United States, 6/2016).** TWA: 3.5 mg/m^3 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 3.5 mg/m^3 8 hours.
titanium dioxide		**ACGIH TLV (United States, 3/2018).** TWA: 10 mg/m^3 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 mg/m^3 8 hours. Form: Total dust **OSHA PEL (United States, 5/2018).** TWA: 15 mg/m^3 8 hours. Form: Total dust
Appropriate engineering controls	:	The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measures		
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance		
Physical state	:	Solid. [Finely divided solid.]
Color	:	Black.
Odor	:	Plastic./Faint odor.
Odor threshold	:	Not available.
pH	:	Not applicable.
Melting Point	:	Not available.
Boiling Point	:	Not available.
Flash point	:	Closed cup:Not applicable.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not applicable.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Insoluble in the following materials: cold water and hot water.
Solubility in water	:	Not available.
Partition coefficient:n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decompositon temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Not available.

10.STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	:	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced

11.TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
carbon black	LD50 Oral	Rat	>15400 mg/kg	-
titanium dioxide	LD50 Oral	Rat	>5000 mg/kg	-
Toner	LC50 Inhalation Dusts and mists	Rat	>5000 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion : No specific data.

Sensitization : No specific data.

Mutagenicity : No specific data.

Conclusion/Summary : Not mutagenic in Ames test.

Carcinogenicity : No specific data.

Conclusion/Summary : Low acute inhalation toxicity. As with exposure to high concentrations of any dust, minimal irritation of the respiratory tract may occur. Pure carbon black and titanium dioxide, minor components of this product, has been listed by IARC as a group 2B (possible carcinogen). This classification is based on rat "lung particulate overload" studies performed with airborne particulate. Toner is not listed by IARC, NTP, or OSHA.

Classification

Product/ingredient name	OSHA	IARC	NTP
carbon black	-	2B	-
titanium dioxide	-	2B	-

Reproductive toxicity: No specific data.

Teratogenicity: No specific data.

Specific target organ toxicity (single exposure): No specific data.

Specific target organ toxicity (repeated exposure): No specific data.

Aspiration hazard: No specific data.

Information on the likely routes of exposure: Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Long term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Potential chronic health effects	No specific data
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.Toner is negative (nonmutagenic) in the Ames assay.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Numerical measures of toxicity	
Acute toxicity estimates	Not available.

12.ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name	Result	Species	Exposure
carbon black	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia – Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus 96	96 hours
Toner	Acute EC50 >1000 mg/l	Daphnia	24 hours
	Acute EC50 >1000 mg/l	Daphnia	48 hours

Persistence and degradability Not available.
Bioaccumulative potential :

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Charge Control Agent	1.32	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC})	Not available.
Other adverse effects	No known significant effects or critical hazards

13.DISPOSAL CONSIDERATIONS

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Disposal methods	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14.TRANSPORT INFORMATION

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

15.REGULATORY INFORMATION

Ensure this product in compliance with national requirements and ensure comformity to local regulations.

16.OTHER INFORMATION

The above mentioned data correspond to our present state of knowledge and experience, but no warranty is made. Users should consider these data only as a supplement to other information and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of the materials and safety and health of employees and customers.

References

1 : HCS (U.S.A.)- Hazard Communication Standard

ApeosPort 3410SD/ApeosPort Print 3410SD Toner(Black)
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International transport regulations
IATA Dangerous Goods Regulation (DGR) 62nd Edition 2021