AstroNova®
Product Identification

www.astronovainc.com

SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) NO 1907/2006 (REACH)

Section 1. Product and Company Identification

Product Identifier

Product Name	White toner powder (cartridge) PN: 14880001
Product CASRIN	Mixture
Product Description	White toner
Relevant identified uses of the substance or mixture and uses advised against material uses:	For electrophotographic printing systems

Details of the supplier of the safety data sheet

USA Manufacturer: OKI Data Corporation 3-1 Futaba-cho, Takasakishi, Gunma. 370-8585 Japan Tel: +81 27-328-6366 Fax: +81 27-328-6398	**Supplier:** AstroNova Inc. 600 East Greenwich Avenue West Warwick, RI 02893 Tel: +1 401-828-4000
Emergency Telephone Number USA:	1-800-654-3282

Section 2. Hazard(s) Identification

Product Classification per 29 CFR 1910.1200

Hazard Classification	This product does not satisfy any of the criteria for a hazardous material per the guidelines established by the United Nations (Globally Harmonized System of Classification and Labeling Chemicals) as specified in 29 CFR 1910.1200 Hazard Communication (2012).
Signal Word	Not Applicable
Hazard Statements	Not Applicable

Recommended Safety Precautions

Injury Prevention	Take all precautions to prevent dispersion of this product in air. Eliminate all sources of ignition. Take precautionary measures against static discharge. Good industrial hygiene practices should be followed when handling this material. Wash thoroughly after handling.
Emergency Response	IF IN EYES: rinse cautiously with water for 15 minutes. Remove contact lens, if present and easy to do. Continue rinsing. Seek medical attention if necessary. IF ON SKIN: gently wash with plenty of soap and water. Call a POISON CONTROL CENTER or doctor if symptoms develop or you feel unwell.
Product Storage	Protect from sun. Store in a well-ventilated room (under 40° C). Guard against accumulations of this material on surfaces. Eliminate all sources of ignition.
Product Disposal	DISPOSE of product and containers in accordance with all applicable local, state, federal, and international regulations.

Hazards Not Otherwise Classified

Pyrophoric Gases	Not Applicable
Simple Asphyxiants	Not Applicable
Combustible Dust	Product has not been tested for combustibility. However, as similar products are known to be combustible, the potential for this material to combust is a real hazard. All precautions should be taken when handling this product to avoid dispersion of the material in air.

Dust Classification	Minimum Ignition Energy (mJ)	Pmax (bar-g)	Rmax (bar/s)	Rmax (bar-m/s)	Explosion Severity
Unknown (material has not been tested for combustibility)					

Definitions for dust classifications are found in OSHA Instruction CPL 03-00-008 *Combustible Dust National Emphasis Program (reissued)* March 11, 2008, Appendix E, Section 5

Other Known Hazards None

FOR INFORMATION REGARDING ENVIRONMENTAL GHS CLASSIFICATION, REFER TO SECTION 12 BELOW

Section 3. Composition/Information on Ingredients

Chemical Name	Common Name	CAS Number	Concentration (%)
Titanium oxide (TiO2)	Titanium oxide (TiO2)	13463-67-7	40 – 50
Confidential	Polyester resin	Confidential	Confidential
Silica	Silica	Confidential	1 – 5
Wax	Wax	Confidential	1 – 5
Other components	-	-	-

Section 4. First-Aid Measures

Eyes	Immediately flush eyes with plenty of water for at least 15 minutes. If necessary, seek medical attention.
Skin	For skin contact, wash immediately with soap and water. If necessary, seek medical attention.
Ingestion	If the material is swallowed, get immediate medical attention or advice.
Inhalation	Call a physician if symptoms develop or persist.
Symptoms of Exposure	None known.
Notes to Physician	Provide general supportive measures and treat symptomatically.

Section 5. Fire-fighting Measures

Flammable Properties	Refer to SECTION 9: Physical and Chemical Properties
Hazardous Products of Combustion	Irritating and toxic gases or fumes may be released during a fire.
Properties that could Increase Fire or Explosion Hazard	Dusts at sufficient concentrations can form explosive mixtures with air.
Extinguishing Media	Water spray or powder
Fire-fighting Instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA ratings are found in SECTION 16

Section 6. Accidental Release Measures

FOR ALL TRANSPORTATION ACCIDENTS, call at 401-828-4000

Response to small spills of product

Spill Containment	Containment of this material should not be necessary.
Spill Cleanup Procedures	Vacuum up the spilled material.
Required Equipment	Vacuum or sweep up material and place in disposal container.
Additional Information	No other spill procedures necessary.

Response to large spills of product

Spill Containment	Stop the flow of material, if this is without risk. Contain the discharged material. Remove sources of ignition.
Spill Cleanup Procedures	Avoid the generation of dusts during cleanup. Use water mist on the spilled material to wet surfaces and prevent dusting. Vacuum or sweep up material and place in a disposal container. Put material in suitable, covered, labeled containers.
Required Equipment	Any equipment that presents a risk of accumulating static electricity should be properly grounded/bonded when used in the cleanup of this material. Wear appropriate protective equipment and clothing during cleanup.
Additional Information	No other spill procedures necessary.

Section 7. Handling and Storage

Handling Requirements	DUE TO THE POTENTIAL FOR COMBUSTIBLE DUST EXPLOSION, avoid conditions, which may result in formation of a dust cloud. Implement best housekeeping practices to prevent accumulation of this product on surfaces. Equipment used to remove accumulated product should be protected against static ignition. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Avoid getting this material into contact with your skin and eyes. Do not breathe fumes or dust from this material. Wash thoroughly after handling.
Storage Requirements	Store in a cool, dry, well-ventilated area. This material can accumulate static charge, which may cause spark and become an ignition source. Guard against dust accumulation of this material.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Prevent electrostatic charge build-up by using common bonding and grounding techniques.

Personal Protective Equipment

Eye/Face Protection	Wear dust goggles.
Hand Protection	Use impervious gloves.
Skin Protection	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory Protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever there may be potential for airborne exposure.

Exposure Limits

Chemical	CASRN	Percent	Limits	Agency
Titanium dioxide	13463-67-7	40 – 50	15 mg/m^3 TWA (total dust)	OSHA
Particulates not otherwise regulated	-	-	15 mg/m^3 TWA (total dust); 5 mg/m^3 TWA (respirable fraction)	OSHA
Titanium dioxide	13463-67-7	40 – 50	10 mg/m^3 TWA	ACGIH
Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS)	-	-	10 mg/m^3 TWA (inhalable particles, recommended); 3 mg/m^3 TWA (respirable particles, recommended)	ACGIH

Section 9. Physical and Chemical Properties

Appearance @ 20˚C	White Powder	**Odor**	No odor
Odor Threshold	No data available	**pH**	No data available
Vapor Density	No data available	**Vapor Pressure**	No data available
Evaporation Rate	No data available	**Relative Density**	1.2g/mL @ 20˚C
Melting Point (˚C)	No data available	**Water Solubility**	Insoluble in water
Initial Boiling Point (˚C)	No data available	**Boiling Range (˚C)**	No data available
Partition Coefficient (N-Octanol/Water)	No data available	**Viscosity**	No data available
Decomposition Temperature	No data available	**Flammability Classification**	Not evaluated
Flash Point (˚C)	Not applicable	**Auto-Ignition Temperature**	No data available
Upper Explosive Limit	No data available	**Lower Explosive Limit**	No data available

Section 10. Stability and Reactivity

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid ignition sources where dust is produced.
Incompatible Materials (Reactivity)	None known.
Incompatible Materials (Storage & Transport)	No information available.
Hazardous Decomposition Products	None known.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Acute Effects

Eye Effects	Dust or powder may irritate eye tissue.
Skin Effects	Not expected to be a primary skin irritant.
Acute Oral Effects (Ingestion)	Low toxicity.
Acute Inhalation Effects	Dust of this product may cause irritation of the nose, throat, and respiratory tract.
Target Organs	No known effects.

Chronic Effects

Mutagencity	Ames Test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA): Negative
Teratology	No data available for this product.
Reproductive and Developmental Toxicity	No information available.

Carcinogenicity

Chemical Name	Data	Agency	List
Silica, amorphous	Monograph 93 [2010]; Monograph 47 [1989]	IARC	Group 2B Classifiable as Carcinogens
Titanium dioxide	Present	OSHA	Select Carcinogens

None of the components of this product are listed on the OSHA Possible or Select Carcinogens Lists.
None of the components of this product are listed on the ACGIH Carcinogens List.
None of the components of this product are listed on the NPT Known or Suspected Carcinogens List.

Lethal Dose (LD50 & LC50) Data

LD50 Oral	LD50 Oral Rat > 2000 mg/kg
LD50 Dermal	No information available 5% of the mixture consists of ingredients of unknown toxicity.
LC50 Inhalation	LC50 Inhalation Rat > 5.09 mg/L/4 (nose only)
Medical Conditions Aggravated by Exposure	Inhalation of this product may aggravate existing conditions of the respiratory system such as asthma or bronchitis.
Routes of Entry	Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.
Other Toxicological Information	SKIN CORROSION/IRRITATION: Rabbit, undiluted, 4 hours semi-occluded application test (OECD 404): Not classified, P.C.I. = 0 SERIOUS EYE DAMAGE/IRRITATION: Rabbit, undiluted, OCED405: not classified, I.A.O.I. = 2.0 SKIN SENSITIZATION: Local Lymph Node Assay (LLNA, OECD429): negative

Section 12: Ecological Information

UN GHS Aquatic Toxicity Classification Information

Aquatic Toxicity	Not classified as hazardous to aquatic environment
Classification Signal Word	Not applicable
Hazard Pictogram	Not applicable
Hazard Statement	Not applicable
Prevention	Not applicable
Response	Not applicable
Disposal	Not applicable

Additional Environmental Information

Aquatic Toxicity (fish)	No information available
Ecotox. Information	None determined
Environmental Fate	No data available for this product
Biological Oxygen Demand (BOD5), g/g	No data available
Chemical Oxygem Demand (COD), g/g	No data available
Persistence & Degradability	No information available
Bioaccumulation	No information available

Section 13. Disposal Considerations

Waste Description	Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definit ions of hazardous wastes.
General Disposal Considerations	Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.
Disposal of Empty Containers	Disposal of waste material according to local, state, federal, and provincial environmental regulations.

Section 14. Transport Information

	US DOT	**IATA**	**IMDG**
UN Number	Not applicable	Not applicable	Not applicable
UN Proper Shipping Name	Non-hazardous material	Non-hazardous material	Non-hazardous material
Transport Hazard Class(es)	Not applicable	Not applicable	Not applicable
Packing Group	Not applicable	Not applicable	Not applicable

Emergency Response Guidebook (ERG) Reference	No reportable quantity for this product Not applicable
Marine Pollutant	None

Section 15. Regulatory Information

Toxic Substances Control Act (TSCA)	This product is listed on the U.S. EPA TSCA Inventory.
Export Notifications	This product is not subject to TSCA 12B Export Notification requirements.
Significant New Use Rule (SNUR)	This material is not subject to a Significant New Use Rule under the US Toxic Substances Control Act.

International Chemical Inventories

All of the components of this product are listed on the following inventories:

DSL	Canada	No	
NDSL	Canada	No	
ENCS	Japan	Yes	
EINECS	Europe	No	
ELINCS	Europe	Yes	
IECSC	China	Yes	Simplified Notification (polymer)
PICCS	Philippines	No	
ECL	Korea	Yes	Exemption for Examination
AICS	Australia	Yes	
TCSI	Taiwan	Yes	

EMERGENCY PLANNING and COMMUNITY RIGHT TO KNOW ACT (EPCRA)
40 CFR PART 355, APPENDIX A

EHS Components	CASRN	Percent	TPQ Pounds and RQ
No limits established for this product.			

313 Components	CASRN	Percent	Reporting Limit
No limits established for this product.			

CERCLA/SARA Components	CASRN	Percent	Reporting Limit
No limits established for this product.			

EPCRA SECTION 311/312 Classification	**Acute**	No
	Chronic	No
	Fire	No
	Pressure	No
	Reactive	No

Other Federal Regulations

The following components are identified under the Clean Air Act HON-Rule for SOCMI chemicals:

Component Name	CASRN
No regulated components	

The following components are identified under the Clean Air Act (VOCs in SOCMI chemicals):

Component Name	CASRN
No regulated components	

The following components are identified under the Clean Air Act as Hazardous Air Pollutants (HAP)

Component Name	CASRN
No regulated components	

The following components are identified under the Clean Air Act HON-Rule Hazardous Air Pollutants (HAP):

Component Name	CASRN
No regulated components	

The following components are identified under the Clean Air Act HON-Rule Hazardous Air Pollutants (HAP):

Component Name	CASRN	List Name
No limits established for this product.		

State Right-to-Know Information:

Component Name	CASRN	State	List name
Titanium dioxide	13463-67-7	Massachusetts	Right-to-Know List
Titanium dioxide	13463-67-7	New Jersey	Right-to-Know List
Titanium dioxide	13463-67-7	Pennsylvania	Right-to-Know List

If the STATE RIGHT-TO-KNOW INFORMATION table above is empty than none of the components of this product are included on the state right-to-know regulatory lists for Florida, Massachusetts, Michigan, Pennsylvania, or New Jersey.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

Component Name	CASRN	Concentration ₸	List Data
Titanium dioxide	13463-67-7	40 – 50	Carcinogen, 9/2/2011 (airborne, unbound particles or respirable size)

₸ *CONCENTRATIONS EXPRESSED IN % UNLESS UNITS ARE SPECIFIED*

Section 16. Other Information

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumed any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that e

National Fire Protection Association (NFPA) Hazard Ratings

Health	1
Flammability	2
Reactivity	0

Hazardous Material Identification System (HMIS) Hazard Ratings

Health	1
Flammability	2
Reactivity	0
Personal Protection	D

The following components of this product are listed on the Canadian WHMIS Ingredient Disclosure List (IDL):

Component Name	CASRN	Percent	Minimum Concentration
No regulatory limits established for this product.			