

SAFETY DATA SHEET

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

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name	White toner powder (cartridge) PN: 14880001
Product CASRN	Mixture
Product Description	White toner

1.2 Relevant identified uses of the substance or mixture and uses advised against material uses:

For electrophotographic printing systems

1.3 Details of the supplier of the safety data sheet

Supplier:

Manufacturer:

OKI Data Corporation
3-1 Futaba-cho, Takasakishi, Gunma.
370-8585 Japan
Tel: +81 27-328-6366 Fax: +81 27-328-6398

AstroNova Inc.
Waldstraße 70
63128 Dietzenbach Deutschland
Tel: +49 (0) 6074-31025-00

1.4 Emergency Telephone Number:

+49 (0) 6074-31025-00

Section 2. Hazard(s) Identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP / GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity: Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 31,6%

Ingredients of unknown ecotoxicity: Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 47,7%

Classification according to Directive 1999/45/EC [DPD]

The product is not classified as hazardous according to Directive 1999/45/EC and its amendments.

Classification: Not classified.

See Section 11 for more detailed information on health effects and symptoms.

See Section 16 for the full text of the H statements declared above.

2.2 Label elements

Hazard pictograms:

Signal word: No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements

Prevention: Not applicable.

Response: Not applicable.

Storage: Not applicable.

Disposal: Not applicable.

Hazardous Ingredients:

Supplemental label elements: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification.

Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

Section 3. Composition/Information on Ingredients

Substance/mixture: Mixture

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environment hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Section 4. First-Aid Measures

4.1 Description of first aid measures

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
Irritation
Redness

Inhalation: Adverse symptoms may include the following:
Respiratory tract irritation
Coughing

Skin contact: No specific data.

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed.

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Section 5. Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Use dry chemical powder.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special Hazards arising from the substance or mixture

Hazards from the substance or mixture: Fine dust clouds may form explosive mixtures with air.

Hazardous combustion products: Decomposition products may include the following materials:
Carbon dioxide
Carbon monoxide
Nitrogen oxides
Halogenated compounds
Metal oxide/oxides

5.3 Advice for firefighters

Special precautions for firefighters: 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information:

This product is a combustible dust categorised as ST2 and class II based on dust explosion ASTM E1226. Data was obtained on a similar product.

Section 6. Accidental Release Measures

6.1 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. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 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)

6.3 Methods and materials for containment and cleaning up

Small spill:

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill:

Move containers from spill area Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections:

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

Section 7. Handling and Storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. 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. 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.

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.

7.2 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 to 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.

Seveso II Directive

This product is not controlled under the Seveso II Directive.

7.3 Specific end use(s)

Recommendations:

Not available.

Industrial sector specific solutions:

Not available.

Section 8. Exposure Controls/Personal Protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Europe No exposure limit value known.	
Germany Titanium Dioxide	TRGS900 AGW (Germany, 3/2015). TWA: 1,25 mg/m ³ 8 hours. Form: alveolar fraction PEAK: 20 mg/m ³ 15 minutes. Form: inhalable fraction TWA: 10 mg/m ³ 8 hours. Form: inhalable fraction
Aluminum Hydroxide	TRGS900 AGW (Germany, 3/2015). TWA: 1,25 mg/m ³ 8 hours. Form: alveolar fraction PEAK: 20 mg/m ³ 15 minutes. Form: inhalable fraction TWA: 10 mg/m ³ 8 hours. Form: inhalable fraction MAK-Werte Liste (Germany, 7/2015). TWA: 4 mg/m ³ 8 hours. Form: inhalable dust TWA: 1,5 mg/m ³ 8 hours. Form: respirable dust
Spain Paraffin	INSHT (Spain, 2/2011). TWA: 2 mg/m ³ , 8 hour(s). Form:-Fume

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using 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 side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Recommended:

Splash goggles.

Safety glasses with side shields.

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
> 8 hours (breakthrough time): natural rubber (latex)

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.

Recommended:

Full suit

Overall

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:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.

Remark:

The penetration-time of the recommended gloves depends not only on the material. Also other factors may have influence on the penetration-time, as the thickness of them or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected. Please ask your supplier, if gloves are suitable for the intended use.

Section 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance

Remark:	Solid. [Powder.]
Colour:	White.
Odour:	Odourless.
Odour threshold:	Not available.
pH:	Not applicable.
Melting point:	Not available.
Initial boiling point and boiling range:	Not available.
Flash point:	Not available.
Evaporation rate (butyl acetate = 1):	Not available.
Flammability (solid, gas):	Not available.
Upper/lower flammability or explosive limits:	Not available.
Vapour density:	Not available.
Density:	1.2 g/cm ³ (20° C)
Solubility(ies):	Insoluble in the following materials: Cold water and hot water.
Partition coefficient n-octanol/water:	Not available.
Decomposition temperature:	Not available.
Viscosity (Dynamic):	Not available.
Explosive properties:	Explosive in the presence of the following materials or conditions: Open flames, sparks and static discharge. This product is a combustible dust categorized as ST2 and Class II based on dust explosion ASTM E1226. Data was obtained on a similar product.
Oxidizing Properties:	Not available.

9.2 Other information

No additional information.

Section 10. Stability and Reactivity

10.1 Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical Stability	This product is stable.
10.3 Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to Avoid:	Explosive in the presence of the following materials or conditions: Open flames, sparks and static discharge. This product is a combustible dust categorized as ST2 and Class II based on dust explosion ASTM E1226. Data was obtained on a similar product.
10.5 Incompatible materials:	Reactive or incompatible with the following materials: Oxidizing materials.
10.6 Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose
Proprietary mixture.	LC50 Inhalation Dusts and mists	Rat	> 5,09 mg/l
	LD50 Oral	Rat	> 2000 mg/kg

Acute toxicity estimates

Route	ATE value
Not available.	

Irritation/Corrosion

Product/ingredient name	Result	Species	Score

Conclusion/Summary:

Skin: On a basis of test data (404 Acute Dermal Irritation/Corrosion): Not classified.
Eyes: On a basis of test data (405 Acute Eye Irritation/Corrosion): Not classified.
Respiratory: Not available.

Sensitiser

Product/ingredient name	Route of exposure	Species	Result
Proprietary mixture.	Skin	Mouse	Not sensitising

Conclusion/Summary:

Skin: Not sensitising.
Respiratory: Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Proprietary mixture.	Ames test	Experiment: In vitro	Negative
	(TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA)	Subject: Bacteria	

Conclusion/Summary: Not available.

Carcinogenicity:

Conclusion/Summary: Not available.

Reproductive toxicity:

Conclusion/Summary: Not available.

Teratogenicity:

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated exposure)

Potential acute health effects

Inhalation:

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion:

No known significant effects or critical hazards.

Skin contact:

No known significant effects or critical hazards.

Eye contact:

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:

Adverse symptoms may include the following:

Respiratory tract irritation

Coughing

Ingestion:

No specific data.

Skin contact:

No specific data.

Eye contact:

Adverse symptoms may include the following:

Irritation

Redness

Potential chronic health effects

Conclusion/Summary:

Not available.

General:

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity:

No known significant effects or critical hazards.

Mutagenicity:

No known significant effects or critical hazards.

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.

Absorption:

Not available.

Distribution:

Not available.

Metabolism:

Not available.

Elimination:

Not available.

Other information:

Not available.

Section 12: Ecological Information

12.1 Toxicity

Conclusion/Summary:

Not available.

12.2 Persistence and degradability

12.3 Bioaccumulative Potential:

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}):

Not available.

Mobility:

Not available.

12.5 Results of PBT and vPvB assessment:

12.6 Other adverse effects:

No known significant effects or critical hazards.

Section 13. Disposal Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment

Product

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.

Hazardous waste:

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions:

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport Information

	ADR/RID	AND/ADNR	IMDG	IATA
14.1 UN number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	- <u>ADR/RID</u> <u>Classification Code</u>		-	

14.6 Special precautions for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: - Not applicable.

Other EU regulations

Seveso II Directive

This product is not controlled under the Seveso II Directive.

National regulations

Germany

Hazard class for water: 2 Appendix No. 4

Switzerland

VOC content: Liberated

International regulations

Registration status:

This refers only to country inventory status. Some countries may have additional importation requirements.

Australia – (AICS)

China – (IECSC)

European Union – (EINECS or ELINCS)

Japan – (ENCS)

Republic of Korea – (KECI)

United States – (TSCA)

Taiwan – (CSNN)

15.2 Chemical Safety Assessment:

This product contains substances for which Chemical Safety Assessments are still required.

Section 16. Other information

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation
[Regulations (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Europe

Full text of abbreviated H statements: Not applicable.

Full text of classifications [CLP/GHS]: Not applicable.

Full text of abbreviated R statements: Not applicable.

Full text of classifications [DSD/DPD]: Not applicable.

Form: *ISS SDS GHS Europe (EU) REACH Annex II (Reg 453/2010)/CLP V4.4 - Europe*

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements of the product. It is not to be considered a guarantee of the product's properties.