

Safety Data Sheet

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

1.1 Product identifier:

Product name: T-449SE-R

e-STUDIO449S

SDS NO. T449SEREN-2

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

Toner for electrophotographic equipment

1.3 Details of the supplier of the safety data sheet

Manufacturer Toshiba Tec Corporation

Address: Gate City Ohsaki West Tower 1-11-1, Osaki, Shinagawa-ku, Tokyo, 141-8562, Japan

Telephone number: +81-3-6830-9100

Supplier

Toshiba Tec Germany Imaging Systems GmbH

Address: CARL-SCHURZ-STR. 7, D-41460 NEUSS GERMANY

Telephone No.+49-2131-1245-0

Email address: info@toshibatec-tgis.com

(European Headquarters)

Emergency telephone No. +1-703-527-3887 (collect calls accepted) (CHEMTREC)

Toshiba Tec U.K. Imaging Systems Limited

Address: Abbey Cloisters, Abbey Green, Chertsey, KT16 8RB

Telephone No. +44-1932-580100 For calls within UK only.

Email address: info@toshibatec.co.uk.

2. Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

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

(Note) GHS classification without description: Not classified/Classification not possible

2.2 Label elements

No Signal word

PRECAUTIONARY STATEMENT

Storage

Keep container tightly closed.

2.3 Other hazards

The product does not contain any ingredient designated as PBT and/or vPvB.

The product does not contain any ingredients designated as Endocrine disrupting properties.

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.

Disposal

Refer to manufacturer/supplier for information on disposal/recovery/recycling.

3. Composition/information on ingredients

Mixture/Substance selection:

3.2 Mixture

Ingredient name	Content (%)	CAS No.
Carbon black	<10	1333-86-4
Charge Control Agent	<3	Proprietary
Titanium dioxide	<1	13463-67-7

Titanium dioxide; Classification according to Regulation (EC) No. 1272/2008 (CLP) : Carc.2, H351(inhalation)

Components contributing to the hazard

The product does not contain any ingredients listed in REACH SVHC candidate list.

4. First-aid measures

4.1 Descriptions of first-aid measures

Inhalation

Remove from exposure area to fresh air immediately.

Contact a physician if there is any difficulty in breathing or other signs of distress.

Skin Contact

Gently wash with plenty of soap and water.

Wash with soap and water.

If irritation occurs or is persistent, seek medical attention

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes.

If irritation persists, call a physician.

Ingestion

Dilute stomach contents with several glasses of water.

4.2 Most important symptoms and effects, both acute and delayed

Specific information on symptom and effect are unknown.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam, carbon dioxide, dry chemical, water fog

Unsuitable extinguishing media

Do not use direct water jet.

5.2 Special Hazards

May form explosible dust-air mixture if dispersed.

5.3 Advice for firefighters

Specific fire-fighting measures

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 and precautions 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

6.1 Personnel precautions, protective equipment and emergency procedures

Evacuate area.

Wear proper protective equipment.

Eliminate all sources of ignition and ventilate the area.

Avoid breathing dust.

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).

6.2 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

Sweep slowly spilled toner/developer and carefully transfer into a waste container.

Choose a dust explosion-proof type if you use the vacuum cleaner.

6.4 Reference to other sections

Refer to section 13

7. Handling and storage

7.1 Precautions for safe handling

Preventive measures

Do not breathe dust.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

No special ventilation equipment is needed under intended use.

7.2 Storage

Conditions for safe storage

Store in a dry place.

Protect from sunlight. Store in a well-ventilated place.

Keep out of the reach of children.

7.3 Specific end use(s)

Toner for electrophotographic equipment

8. Exposure controls/personal protection

8.1 Control parameters

ACGIH

(Carbon black)

ACGIH TLV (United States, 3/2019) TWA: 3mg/m³ 8 hours. Form: Inhalable fraction

(Titanium dioxide)

ACGIH TLV (United States, 3/2019) TWA: 10mg/m³ 8 hours

OSHA-PEL

(Carbon black)

OHSHA-PEL (United States, 5/2018) TWA 3.5mg/m³ 8 hours

(Titanium dioxide)

OHSHA-PEL (United States, 5/2018) TWA 15mg/m³ 8 hours. Form: Total dust

8.2 Exposure controls

Individual protection measures

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.

Eye 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 and 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.

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.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state: Powder/granule

Color: Black

Odor: Slight odor

Melting point/Freezing point: 110-150°C

Boiling point or initial boiling point data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit: Not applicable

Flash point: Not applicable

Auto-ignition temperature: Not applicable

Decomposition temperature: Not applicable

Self-Accelerating Decomposition Temperature/SADT: Not applicable

pH data is not available.

Kinematic viscosity: Not applicable

Solubility:

Solubility in water: Insoluble

n-Octanol/water partition coefficient: Not applicable

Vapor pressure data is not available.

Density and/or relative density: 1.1-1.5g/cm³

Particle characteristics: No information

9.2 Other information

9.2.2 Other safety characteristics

Explosive Properties

Little possibility in intended use.

According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.

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

Stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 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.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity (Oral), Product
LD50 > 5,000mg/kg (Rat)

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Germ cell mutagenicity

Ames test :Negative

Carcinogenicity

(Carbon black)

The IARC classified carbon black as a Group 2B carcinogen(possible human carcinogen). But carcinogenicity was not observed with toner containing carbon black in chronic rat inhalation study.

(Titanium dioxide)

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen).

In animal chronic inhalation studies, carcinogenicity was observed in only specific rats.

This is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

Chronic Effects

In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92 % of the rats in the high concentration (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

Aspiration hazard data is not available.

11.2 Information on other hazards

Endocrine disrupting properties is not available.

12. Ecological Information

12.1 Ecotoxicity

Aquatic toxicity

Hazardous to the aquatic environment (Acute)

EC50 > 1,000mg/L (Daphnia) 24 hours

EC50 > 1,000mg/L (Daphnia) 48 hours

12.2 Persistence and degradability

Persistence and degradability data is not available.

12.3 Bioaccumulative potential

Charge Contorol Agent: LogPOW=1.32 Potential: Low

12.4 Mobility in soil

Mobility in soil data is not available.

12.5 Results of PBT and vPvB assessment

PBT and/or vPvB assessment data is not available.

12.6 Endocrine disrupting properties

Endocrine disrupting properties is not available.

12.7 Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

13.1 Waste treatment methods

This product contains synthetic polymer microparticles. Toner or developer falls under synthetic polymer microparticles. To prevent toner and developer from being released into the environment, please follow the instructions in the manual and do not dispose of them as municipal waste or flush them into drains, which will help prevent potential negative consequences for the environment and human health. For more detailed information about the take-back and recycling of this product please contact your supplier where you purchased the product.

14. Transport Information

UN No., UN CLASS

14.1 UN No. or ID No.: Not applicable

14.2 UN Proper Shipping Name : Not applicable

14.3 Class or division (Transport hazard class) : Not applicable

14.4 Packing group : Not applicable

Land DOT 49 CFR, ADR : Not classified as Dangerous Goods

Sea IMDG Code : Not classified as Dangerous Goods

ICAO-TI, IATA-DGR : Not classified as Dangerous Goods

14.5 Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

14.6 Special precautions for user

Special precautions for user is not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable to Maritime transport in bulk according to IMO instruments

15. Regulatory Information

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

The product does not contain any ingredients listed in REACH SVHC candidate list.
United States

TSCA (USA) : Not determined.

SARA / EPCRA (USA) : None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302: Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.

SARA 311/312

Classification : COMBUSTIBLE DUSTS

SARA 313

Form R - Reporting requirements : Charge Control Agent

Supplier Notification : Charge Control Agent

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65:

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations lists

Europe inventory (EINECS) :

All ingredients are listed on the European Inventory of Existing Commercial Substances (EINECS) list, have been registered on the European List of New Chemical Substances (ELINCS), or are exempt.

REACH Status :

EU (REACH): All components of the toner formulation are registered or exempt under REACH.

Japan inventory (ENCS) :

All ingredients are listed on the Japanese Existing and New Chemical Substances (ENCS) list, have been registered, or are exempt.

Australia inventory (AICS) :

All ingredients are listed in Australian Inventory of Chemical Substances (AICS), have been registered, or are exempt.

Philippines inventory (PICCS) :

All ingredients are listed on the Philippines inventory (PICCS). No ingredients are listed under CCO, PCL, CCEI, and CPECS (quicklist of regulated substances).

Korea inventory (KECI) :

All ingredients are listed on the Korean Existing Chemicals List (ECL), have been registered, or are exempt.

China inventory (IECSC) :

All ingredients are listed on the Chinese inventory (IECSC) or are exempt.

Canada

WHMIS (Canada) :Not classified.

DSL /NDSL :

All ingredients are listed on the Canadian Domestic Substances List (DSL), have been registered on the Non-Domestic Substances List (NDSL), or are exempt.

Mexico Classification :

Not classified.

Health : 0 Flammability : 1 Reactivity : 0

Other regulatory information

Toner or developer falls under the category of synthetic polymer microparticles under Regulation (EC) No 1907/2006(REACH), Annex XVII entry 78.

15.2 Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2021 TLVs and BEIs. (ACGIH)
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats
H.Muhle et.al; Fundamental and Applied Toxicology 17.280-299(1991)
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic
Inhalation Exposure in Rats
B.Bellmann; Fundamental and Applied Toxicology 17.300-313(1991)

Definitions and Abbreviations

OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health
Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental
Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche
Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Restrictions

This data sheet was created based on the information we currently have and may be revised
according to new information. In addition, the precautions apply only to normal handling,
and in the case of special handling, please make adequate countermeasure to maintain your
safety.

The data given here is based on current knowledge and experience. The purpose of this
Safety Data Sheet is to describe the products in terms of their safety requirements. The
data does not signify any warranty with regard to the products' properties.