# SAFETY DATA SHEET



**Revision: 2 Date: 16-02-2023**
**According to Regulations (EC) No 1907/2006 (REACH) , 1272/2008 (CLP) and (EU) 2020/878 (amending REACH)**

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product Name:** MCM-S10P (HP252S10PM10KG)

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Relevant Identified Uses:** This mixture is a toner used in electrophotographic printers and copiers.

### 1.3 Details of Supplier of the Safety Data Sheet:

**Supplier:** Zhuhai Ninestar Information Technology Co., LTD
**Address:** No.3883,Zhuhai Avenue, Xiangzhou District Zhuhai, Guangdong P.R. China
**Telephone Number:** +86 (0) 756 8539712
**Facsimile:** +86 (0) 756 8539922

### 1.4 Emergency Telephone Number

+86 (0) 756 8539712

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

**Regulation (EC) No 1272/2008:** Not classified as hazardous.

### 2.2 Label Elements

**Hazard pictogram:** Not required
**Signal word:** Not required
**Hazard statement:** Not required
**Precautionary statement:** Not required

**Applicable Label Elements in accordance with Part 2 of Annex II to Regulation (EC) No 1272/2008:**

EUH210: Safety data sheet available on request.

### 2.3 Other Hazards

**Information on whether the substance or mixture meets the criteria for PBT or vPvB in accordance with Annex XIII to Regulation (EC) No 1907/2006:** No

**Information on whether any substance in this mixture was included in the list established in accordance with Article 59(1) of Regulation (EC) No. 1907/2006 for having endocrine disrupting propertiesand whether any substance in this mixture is a substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605:** No

**Dust Explosion:** May form explosible dust-air mixture if dispersed.
**Irritation of respiratory tract:** Slight irritation of respiratory tract may occur with exposure to large amount of toner dust.
**Skin Irritation:** Minimal skin irritation may occur.
**Eye Irritation:** Irritation may occur by mechanical abrasion.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixture

**Substances in the Mixture referred to in Points 3.2.2 of Annex II to Regulation (EC) No 1907/2006 or referred to Part 2 of Annex II to Regulation (EC) No 1272/2008:**

| Chemical Identity of the Substance | EC No.<br>CAS No.<br>REACH No. | Ranges of % by mass | Classification according to Regulation (EC) No 1272/2008<br>Index No.* | <br>Hazard Class / Statement** |
|---|---|---|---|---|
| Titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 μm] | 236-675-5<br>13463-67-7<br>*** | ≧ 0.1 and <1.0 | 022-006-00-2 | CarcinogenCat.2<br>H351(Inhalation) |

* Index number in Table 1.1. of Annex VI to Regulation (EC) No 1272/2008

** Full texts of Risk phrases and Hazard statements are listed in Section 16.

*** Since the REACH registration is managed for each importer, the registration number is not shown in the SDS. It will be provided if the substance requires the registration of the importer.

Although this mixture contains the above classified substance, the mixture does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008.

Safety Data Sheet (SDS) is being supplied upon request according to Annex II 3.2.2 (c) to Regulation (EC) No 1907/2006.

**Substances in the Mixture not meeting the Criteria for Classification:**

| Chemical Identity of the substance | EC No. | CAS No. | Ranges of % by mass | Classification according to Regulation (EC) No 1272/2008 |
|---|---|---|---|---|
| Styrene acrylate copolymer | (Polymer) | (Polymer) | 70-90 | Not classified |
| Wax | Confidential | Confidential | 5-15 | Not classified |
| Pigment | Confidential | Confidential | 3-10 | Not classified |
| Amorphous silica | 231-545-4 | 7631-86-9 | < 5 | Not classified |

Refer to Section 8 for the exposure limits and Section 11 for toxicological information.

These substances are indicated solely to help the recipients understand this mixture better, and not bound by Points 3.2.3 or 3.2.4 of Annex II to Regulation (EC) No 1907/2006. The REACH registration number will be provided to the importer if legally required.

Some of the substances listed above are in nanoforms as the raw materials; however, as all of them are bound in the mixture, they ar no longer subject to the regulatory requirements for the nanoforms.

**Carcinogens:**

This mixture contains less than 1.0 % of titanium dioxide listed as category 2 for carcinogenicity and is not classified in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008.

**Substances in Annex XIV to Regulation (EC) No 1907/2006 (Authorization) or the Candidate List of SVHC:**

None

**Substances in Annex XVII to Regulation (EC) No 1907/2006 (Restriction):**

None

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of First Aid Measures

**Inhalation:** Provide fresh air immediately. If symptoms occur, seek medical advice.

**Skin Contact:** Wash out particles with plenty of water and soap. If irritation develops, seek medical advice.

**Eye Contact:** Do not rub eyes. Immediately rinse with plenty of clean running water until particles are washed out. If irritation persists, seek medical advice.

**Ingestion:** Clean mouth out with water. Drink several glasses of water. If sickness develops, seek medical advice.

### 4.2 Most Important Symptoms and Effects, both Acute and Delayed

**Acute:** Exposure to excessive amounts of dust may cause physical irritation to respiratory tract.

**Delayed:** Prolonged inhalation of excessive amounts of dust may damage lung.

### 4.3 Indication of Any Immediate Medical Attention and Special Treatment needed

Immediate medical attention may be required in an unlikely event of extreme inhalation, eye contact or unusual reaction due to physical idiosyncrasy of the person.

## SECTION 5: FIRE FIGHTING MEASURES

**5.1 Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide, water, foam, dry chemical

**Unsuitable Extinguishing Media:** High pressure media which could cause the formation of a potentially explosible dust-air mixture.

**5.2 Special Hazards arising from the Substance or Mixture**

**Dust Explosion:** This mixture, like most organic powders, is capable of creating an explosive dust when particles are dispersed in air.

**Hazardous Combustion Products:** Carbon monoxide and carbon dioxide

**5.3 Advice for Firefighters**

Firefighters should wear protective equipment such as cloves, glasses, boots and respiratory mask as needed.
Avoid generating dust which could form explosible mixture with air.
Do not breathe fumes.
Keep containers cool with water spray if exposed to fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

**For Non-emergency Personnel:** Avoid dust formation.
Remove ignition sources.
Do not breathe dust.
Wear personal protective equipment as described in Section 8.

**For Emergency Responders:** Fabric for personal protective clothing should block particles of the product as small as 3 um.

**6.2 Environmental Precautions**

Do not discharge into drains or the environment.

**6.3 Methods and Materials for Containment and Cleaning up**

Eliminate sources of ignition including sparks and flammables.
Nonsparking tools should be used.
Shelter the released material (powder) from wind to avoid dust formation and scattering.
Vacuum or sweep the material into a sealed container. If a vacuum cleaner is used, it must be dust explosion-proof.
Dispose of the materials in accordance with EU/national/regional/local requirements.

**6.4 Reference to Other Sections**

See Section 8 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for Safe Handling**

Minimize dust generation and accumulation.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Keep away from excessive heat and sources of ignition such as sparks and open flames.
Handle in an adequately ventilated area.
Do not breathe dust.
Do not get in eyes or on skin.
Wear personal protective equipment as recommended in Section 8.
Avoid spills. Do not release to drains.
Do not eat, drink or smoke when handling this product.
Wash hands after handling this product.
Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for Safe Storage, Including Any Incompatibilities**

Keep container closed and store in well-ventilated dry place at room temperature.
Keep away from excessive heat and sources of ignition.
Do not store with strong oxidizers, which may vigorously oxidize organic materials in this mixture and cause a fire in an extreme case.
Avoid packaging materials with plasticizer (e.g. Polyvinylchloride), which may soften this product if directly contacted. This is not safety but quality related information.
Keep out of reach of children.

**7.3 Specific End Use(s)**

This product is a toner used in electrophotographic printers and copiers.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Control Parameters**

**Occupational Exposure Limits:**

**Product**

General dust or particulate not otherwise classified.

**EU OEL:** Not established.
**Germany DFG MAK (8hr TWA):** Inhalable fraction 4mg/m3
**UK HSE WEL (8hr TWA):** Inhalable dust 10mg/m3, Respirable dust 4mg/m3
**Sweden SWEA OEL (LLV):** Dust and mist, organic total dust 5mg/m3
**ACGIH TLV (TWA):** Inhalable particulate 10mg/m3, Respirable particulate 3mg/m3
**USA OSHA PEL (TWA):** Total dust 15mg/m3, Respirable fraction 5mg/m3

**Ingredients**

Titanium dioxide
EU: Not established
Germany: Respirable fraction, except ultrafine particles 0.3mg/m3 (8 hr)
Respirable fraction, except ultrafine particles 2.4mg/m3 (15 min)
UK: Inhalable dust 10mg/m3; Respirable dust 4mg/m3
Sweden: Total dust 5mg/m3
ACGIH: Respirable 2.5mg/m3 (Fine-scale particles)
USA: Total dust 15mg/m3

Amorphous silica
EU: Not established
Germany: Inhalable fraction 4mg/m3
UK: Inhalable dust 6mg/m3; Respirable dust 2.4mg/m3
Sweden: Not established
ACGIH: Not established
USA: 20 mppcf* or 80/% SiO2 mg/m3 (* million particles per cubic foot)

EU: OEL (Occupational Exposure Limits at Community level under Directive 2004/37/EC Annex, 98/24/EC Annex, 91/322/EEC Annex, 2000/39/EC Annex, 2006/15/EC Annex and 2009/161/EU)
Germany: DFG (The Deutsche Forschungsgemeinschaft, German Research Foundation)
MAK (Maximale Arbeitsplatz-Konzentration, Maximum Workplace Concentration)
UK: HSE (Health and Safety Executive) WEL (Workplace Exposure Limits)
Sweden: SWA (Swedish Work Environment Authority) OEL (Occupational Exposure Limits) LLV (Level Limit Values)
ACGIH (American Conference of Government Industrial Hygienists): TLV (Threshold Limit Value)
USA: OSHA (Occupational Safety and Health Administration) PEL (Permissible Exposure Limits)

**Biological Limit Value:** Not established
**PNECs and DNELs:** Not established

**8.2 Exposure Controls**

**Appropriate Engineering Controls:**

Handle in an adequately ventilated area.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Ensure that dust-handling systems such as an exhaust ducts, dust collectors, vessels, and processing equipment are designed in a manner to prevent the escape if dust into the work area (i.e. there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

**Individual Protection Measures, such as Personal Protective Equipment:**

| | |
|---|---|
| **Eye/Face Protection:** | Protective goggles or safety glasses are recommended. |
| **Skin Protection:** | Gloves are recommended. Common plastic or rubber gloves except those containing plasticizer (e.g. Polyvinylchloride) suffice as far as they are tough enough to handle the products and containers. |
| **Respiratory Protection:** | Personal respiratory mask is not required under normal conditions of use, but a respirator is needed in case of dust formation. |
| **Thermal Hazards:** | None anticipated. |

**Environmental Exposure Controls:** Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on Basic Physical and Chemical Properties:**

| | |
|---|---|
| **Physical State:** | Solid (fine powder) |
| **Colour:** | magenta |
| **Odour:** | None or slight plastic-like odor |
| **Melting Point / Freezing Point:** | Not applicable. Softened over 100 degree Celsius. |
| **Initial Boiling Point and Boiling Range:** | Thermal decomposition occurs prior to boiling. |
| **Flammability:** | No data available. |
| **Upper / Lower Flammability or Explosive Limits:** | Not applicable to solid. |
| **Flash Point:** | No data available for this mixture. About 300 degree Celsius for wax. |
| **Auto-ignition Temperature:** | Not applicable to solid. |
| **Decomposition Temperature:** | Thermally decomposed in air beyond 200 degree Celsius. |
| **pH:** | Not applicable because this mixture is non-soluble in water. |
| **Kinematic Viscosity:** | Not applicable to solid. |
| **Solubility:** | Negligible in water. This mixture is partially soluble in some organic solvents such as toluene and tetrahydrofuran. |
| **Partition Coefficient n-Octanol/Water (log value):** | Not applicable to mixture. |
| **Vapor Pressure:** | Not applicable to solid. |
| **Density and/or Relative Density:** | Relative density 1.0-1.5 (water = 1) |
| **Relative Vapor Density:** | Not applicable to solid. |
| **Particle Characteristics:** | Median equivalent diameter 5 to 10 micrometer by volume |

**9.2 Other Information**

F**ormation of explosive dust / air mixtures:** This mixture may form explosible dust-air mixture if dispersed.

## SECTION 10: STABILITY AND REACTIVITY

| | |
|---|---|
| **10.1 Reactivity:** | Stable under normal conditions. |
| **10.2 Chemical Stability:** | Stable under normal ambient, anticipated storage and handling conditions of temperature and pressure. |
| **10.3 Possibility of Hazardous Reactions:** | None except dust explosion when finely dispersed. Keep away from sources of ignition such as sparks and open flames. |
| **10.4 Conditions to Avoid:** | Excessive heat, Dust formation |
| **10.5 Incompatible Materials:** | Strong oxidizers, which could vigorously oxidize organic materials in this mixture and cause a fire in an extreme case. |
| **10.6 Hazardous Decomposition Products:** | Carbon monoxide and carbon dioxide |

## SECTION 11: TOXICOLOGICAL INFORMATION

According to our test results of this or similar mixture and the information provided by the suppliers about the substances contained in this mixture, seriously damaging effect is not expected when this mixture is treated in accordance with standard industrial practices and legal requirements. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

**11.1 Information on Hazard Classes as Defined in Regulation (EC) No 1272/2008**

**Acute Toxicity**

| | |
|---|---|
| **Ingestion:** | LD50 rat > 5,000 mg/kg (OECD 425) (a similar product) |
| **Inhalation:** | No test data available. |
| **Skin Contact:** | No test data available. |
| **Skin Corrosion/Irritation:** | No test data available. |
| **Serious Eye Damage/Irritation:** | No test data available. |
| **Skin Sensitization:** | No test data available. |
| **Respiratory sensitization:** | No test data available. |
| **Germ Cell Mutagenicity:** | Ames test (Salmonella typhimurium, Escherichia coli) negative. (a similar product) |
| **Carcinogenicity:** | No test data available.<br>This mixture contains less than 1.0 % of titanium dioxide listed as Category 2 for carcinogenicity and is not classified in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008. |
| **Reproductive Toxicity:** | No test data available. |
| **STOT (Specific Target Organ Toxicity) -single exposure:** | No test data available. |
| **STOT – repeated exposure:** | No test data available. |

Inhalation test of a toner for two years showed no significant carcinogenicity. (1)
In rats chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lung as well as to persistent inflammatory processes and slight to moderate fibrotic changes in the lungs of rats. In hamsters these effects were only observed at significantly higher concentrations (> 20mg/m3). The particle accumulation in the lung tissue of the experimental animals is attributed to a damage and overload of the lung clearance mechanisms and is called “lung overloading”. This is not an effect specific to toner dust but is generally observed when high concentrations of other, slightly soluble dusts are inhaled.
The lowest-observable-effect-level (LOEL) was 4 mg/m3 and the no-observable-effect-level (NOEL) was 1 mg/m3 in rats. The NOEL was greater than 6 mg/m3 in hamsters. (2) Toner concentration under the normal use of this product is estimated less than 1 mg/m3.

| | |
|---|---|
| **Aspiration hazard:** | No test data available. |

**11.2 Information on Other Hazards**

**11.2.1. Endocrine disrupting properties**

None of the substances in this mixture is identified as having endocrine disrupting properties.

**11.2.2. Other information**

None

## SECTION 12: ECOLOGICAL INFORMATION

According to the information provided by the suppliers about the substances contained in this mixture, this mixture is not expected to be harmful to ecology.

| | |
|---|---|
| **12.1 Toxicity:** | No data available. |
| **12.2 Persistence and Degradability:** | No data available. |
| **12.3 Bioaccumulative Potential:** | No data available. |
| **12.4 Mobility in Soil:** | No data available. |

**12.5 Results of PBT and vPvB Assessment:** This mixture does not contain any substances that are assessed to be a PBT or a vPvB under Regulation (EC) No 1907/2006.

**12.6 Endocrine Disrupting Properties:** No data available.

**12.7 Other Adverse Effects:** No data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Waste Treatment Methods**

Waste material may be landfilled or incinerated in compliance with all EU/national/regional/local provisions.
Do not dump this product into sewers, on the ground, or into any body of water.

## SECTION 14: TRANSPORT INFORMATION

This mixture is not a regulated material under ADR, RID, ADN, IMDG Code, ICAO/IATA (IATA Dangerous Goods Regulations) or the United States DOT.

**14.1 UN Number or ID Number:** None assigned in accordance with the UN Model Regulations.

**14.2 UN Proper Shipping Name:** None assigned in accordance with the UN Model Regulations.

**14.3 Transport Hazard Class(es):** None assigned in accordance with the UN Model Regulations.

**14.4 Packing Group:** None assigned in accordance with the UN Model Regulations.

**14.5 Environmental Hazards:** Not classified as hazardous in accordance with the criteria of the UN Model Regulations.
Not classified as a marine pollutant in accordance with the IMDG code.

**14.6 Special Precautions for User:** See Section 2 and 7.

**14.7 Maritime Transport in Bulk according to IMO Instruments:** Not applicable.
This mixture shall not be carried in bulk for quality purpose.

UN Model regulations: Recommendations on the TRANSPORT OF DANGEROUS GOODS issued by UN.

MARPOL: The International Convention for the Prevention of Pollution from ships, 1973, as modified by the Protocol of 1978 relating to thereto.

IBC code: The International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).

## SECTION 15: REGULATORY INFORMATION

**15.1 Safety, Health and Environmental Regulations/Legislations Specific for the Substance or Mixture**

**EU Information**

**Directive 2011/65/EU (RoHS)** This mixture complies with the RoHS Directive.

**Regulation (EC) No 850/2004:** Not subject to the regulation.

**Regulation (EC) No 1005/2009:** Not subject to the regulation.

**Regulation (EC) No 649/2012:** Not subject to the regulation.

(EC) No 850/2004: Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

(EC) No 1005/2009: Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer

(EC) No 649/2012: Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals

**US Information**

**TSCA:** All the substances in this mixture are listed or exempted in accordance with TSCA.

**CERCLA Reportable Quantity (40 CFR 117, 302):** Not applicable

**SARA Title III (EPCRA)**

**Section 302 (40 CFR 355):** Not applicable

**Section 311/312 (40 CFR 370):** Immediate health hazard: No
(All the ingredients of this product are bound within the mixture.)
Chronic health hazard: No
(All the ingredients of this product are bound within the mixture.)
Sudden release of pressure hazard: No
Reactive hazard: No

**Section 313 (40 CFR 372):** Not applicable to this mixture.

**California Proposition 65:**

This product is in compliance with the regulation as all ingredients are bound within the mixture.

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

## SECTION 16 OTHER INFORMATION

The information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Zhuhai Ninestar Information Technology Co., LTD at the time of preparation of this document. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.
Zhuhai Ninestar Information Technology Co., LTD assumes no legal responsibility for use of or reliance upon this information. This document was prepared to comply with the requirements in the European Union and may not meet regulatory requirements in other regions.

**Sections containing revisions and/or new statements:**

Another product name was added to Section 1.1. Section 2 and 11 were revised. Prepared in accordance with Regulations (EC) No 1907/2006 (REACH), 1272/2008 (CLP) and their amendments.

**Annex to the extended Safety Data Sheet (eSDS):** None

**Legend to Abbreviations:**

| | |
|---|---|
| ADN | Accord Europeen Relatif Au Transport Internation Des Marchandises Dangereuses Par Voies De Navigation Interieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road ) |
| CAS | Chemical Abstracts Service |
| CERCLA | Comprehensive Environmental Response Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| CLP | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| DNEL | Derived No-Effect Level |
| DOT | Department Of Transportation |
| EC | European Community |
| EC50 | half maximal (50%) Effective Concentration |
| ErC50 | EC50 in terms of reduction of growth rate |
| EEC | European Economic Community |
| EPCRA | Emergency Planning and Community Right-to-know Act |
| EU | European Union |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IC50 | half maximal (50%) Inhibitory Concentration |
| IMDG | International Maritime Dangerous Goods |
| LD50 | Lethal Dose, 50 % kill |
| OECD | Organisation for Economic Co-operation and Development |
| OSHA | Occupational Safety and Health Administration |
| PELs | Permissible Exposure Limits |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals |

| | |
|---|---|
| | (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC |
| RID | Règlement International concernant le transport des marchandises Dangereuses par chemin de fer (the international regulations covering transportation of dangerous goods by rail) |
| RoHS | Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment |
| SARA | Superfund Amendments and Reauthorization Act of 1986 |
| SDS | Safety Data Sheet |
| SVHC | Substances of Very High Concern |
| TSCA | Toxic Substances Control Act |
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |
| UN | United Nations |
| vPvB | very Persistent and very Bioaccumulative |

**Literature References:**

(1) "Negative Effect of Long-term Inhalation of Toner on Formation of 8-Hydroxydeoxyguanosine in DNA in the Lungs of Rats in Vivo." Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) 749-753 (2005)

(2) Studies by Muhle, Bellmann, Creutzenberg et al.

"Lung clearance and retention of toner, utilizing a tracer technique during chronic inhalation exposure in rats." Fundam. Appl. Toxicol 17 (1991) p.300-313.

"Lung clearance and retention of toner, TiO2, and crystalline silica, utilizing a tracer technique during chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.731-751.

"Subchronic inhalation study of toner in rats." Inhal. Toxicol. 2 (1990) p.341-360.

"Pulmonary response to toner upon chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299

"Pulmonary response to toner, TiO2 and crystalline silica upon chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.699-729.

**Full texts of Risk Phrases, Hazard Statements, Safety Phrases and/or Precautionary Statements in Section 3:**

H351: Suspected of causing cancer (inhalation)