Safety Data Sheet

SECTION 1 Identification of the substance/preparation and of the company/undertaking

1.1. Product identifier:

Product Name: TONER MAGENTA

Product Code:

TN213M/TN214M/TN216M/TN221M/TN227M/TN321M/TN324M/TN512M/TN514M/TN328M/TN626M/TN711M/TN715M/TNP48M/TNP49M/TNP79M/TNP80M/TNP81M

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

Relevant identified uses: Toner for electrophotographic apparatus

Descriptor: Industrial uses (SU3), Ink and toners (PC18)

1.3. Details of the supplier of the safety data sheet:

Supplier:

Address:

Telephone number: FAX:

Email:

1.4. Emergency telephone number:

SECTION 2 Hazards identification

2.1 Classification of the Substance or mixture:

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

Not classified as a hazardous mixture

Health Hazards

Acute Tox. -oral:	Not classified
Acute tox. -inhalation:	Not classified
Skin Corr/ Irrit:	Not classified
Eye Dam/ Irrit:	Not classified
Skin Sens:	Not classified
Muta:	Not classified

Environmental Hazards

Aquatic Acute:	Not classified
Aquatic Chronic:	Not classified

All other Classifications not listed are either "Not applicable" or "Not available"

2.2 Label elements:

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

None

2.3 Other hazards:

Risk of dust-explosion if finely dispersed in air with an ignition source.

Safety Data Sheet

SECTION 3 Composition/information on ingredients

3.1 Mixtures:

Ingredient Name	Weight %	CAS No.	Classification according to Regulation(EC) No 1272/2008 [CLP]
Saturated polyester resin	70-80	Confidential	None
Styrene acrylate copolymer	2-8	Confidential	None
Pigment (M)	2-8	Confidential	None
Wax	2-8	Confidential	None
Silica, treated	1-6	67762-90-7	None
Titanium(IV) dioxide	< 1	13463-67-7	None
Quaternary ammonium salt**	0.1-1	102561-46-6	Acute Tox.4, H332 Aquatic Chronic2, H411

**Registered as all applicable monomers*

*** Tributylbenzylammonium 4-hydroxynaphthalene-1-sulfonate*

See SECTION 16 for full text of Classification Symbols, R/S-Phrases, and Hazard Statements.

SECTION 4 First aid measures

4.1 Description of first aid measures:

Immediate medical procedures:

None

Inhalation:

Move to fresh air and gargle with water.

Skin contact:

Wash with soap and water.

Eye contact:

Do not rub. Flush with large amount of water until particles are removed.

Seek medical advice

Ingestion:

Rinse mouth, then drink several glasses of water to dilute stomach content.

Seek medical advice.

4.2 Most important symptoms, both acute and delayed:

Inhalation of excessive amounts of dust may cause physical irritation to respiratory system.

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

None

SECTION 5 Firefighting measures

5.1 Extinguishing media:

Water, CO_2, dry chemicals

5.2 Special hazards arising from substance or mixture:

Can form explosive dust-air mixture if finely dispersed in air.

5.3 Advice for firefighters:

Avoid inhalation of fume and smoke.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid breathing dust. Dust-proof masks should be worn when working.

6.2 Environmental precautions:

Do not flush into sewer or natural watercourse.

6.3 Methods and material for containment and cleaning up:

For containment:

Keep in air-tight container.

For cleaning up:

Sweep the spilled powder slowly.

Clean the remainder with wet cloth, wet paper, or vacuum cleaner.

Vacuum cleaner must be equipped with dust proof filter and must be explosion-proof.

For containment:

Keep in air-tight container.

SECTION 7 Handling and storage

7.1 Precautions for safe handling:

Avoid breathing dust. Keep away from ignition sources.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry location away from direct sunlight.

7.3 Specific end use(s):

For use in electrophotographic apparatus such as laser-beam printers and copiers.

SECTION 8 Exposure contols/personal protection

8.1 Control parameters:

As mixture: Dust, respirable

	Limit value –Eight hours		Limit value –Short term	
Country	ppm	mg/m^3	ppm	mg/m^3
European Union	**Not established**	**Not established**	**Not established**	**Not established**
Austria	-	5	-	10
Belgium	-	3	-	-
France	-	5 (respirable aerosol)	-	-
Germany (AGS)	-	1.25	-	-
Germany (DFG)	-	1.5	-	-
Hungary	-	6	-	-
Ireland	-	4	-	-
Spain	-	3	-	-
Sweden	-	5	-	-
Switzerland	-	3	-	-
USA (ACGIH)	-	3	-	-
USA (OSHA PEL)	-	5	-	-

Applicable control parameters are not established in other Community Members not listed

Constituent substances:

This mixture is considered as a “Special Mixture” where substances are modulated by their inclusion within the matrix of the mixture; thus, control parameters for constituent substances do not apply in use of this mixture.

8.2 Exposure controls:

Appropriate engineering controls:

Use of local ventilation is recommended.

Individual protection measures:

Eye/face protection: Protective goggles should be used when handling bulk. Skin Protection: Not required

Hand protection: Not required

Respiratory protection: Dust-proof mask should be used when handling bulk.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Magenta powder (average particle size: app. 7)
microns) Odour:	Slight odour
pH:	Not applicable
Melting point:	App. 130°C (flow temperature)
Boiling point:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability (according to Directive 92/69/EEC):	
As mixture:	Not flammable; Not classified**
Explosive limits:	Not available
Vapour pressure:	Not applicable
Vapour density:	Not applicable
Relative density:	1.1-1.3
Solubility:	
As mixture	Insoluble to water, partially soluble to toluene and xylene.
Substance quaternary ammonium salt:	*1.14g/L (20°C) to water, 35% to methanol, 0.1% to acetone*
Substance titanium oxide:	*Insoluble to water and fat, soluble to strong acids.*
Partition coefficient:	
As mixture	Not available
Substance Quaternary ammonium salt:	*Log P_{ow}=-0.597 (19°C)*
Auto-ignition temperature:	Not available
Decomposition temperature:	>200°C
Viscosity:	Not applicable
Explosive properties:	Explosive dust-air mixture is formed when finely dispersed in air
Oxidizing properties:	Not available

9.2 Other information: None

***according to criteria of Regulation (EC) No 1272/2008 [CLP]*

SECTION 10 Stability and reactivity

10.1 Reactivity:	No data
10.2 Chemical stability:	Stable
10.3 Possibility of hazardous reactions:	No data
10.4 Conditions to avoid:	Do not disperse in air with ignition source.
10.5 Incompatible materials:	No data
10.6 Hazardous decomposition products:	Decomposition will not occur under intended uses

SECTION 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity

As mixture:

Inhalation:

-Not classified**

Ingestion: LD_{50}: oral-rat > 2500mg/kg body weight*; -Not classified**

Substance Quaternary ammonium salt:

Oral: *Not classified***

Dermal: *Not classified***

Inhalation: *o death in 1.61*mg/l, air (4hr) -Acute tox.4 *This concentration is the maximum be tested*

Skin corrosion/irritation: not irritant*; -Not classified** not irritant*; -

Serious eye damage/irritation:

As mixture: Not classified**

Substance titanium oxide: *mild irritation, but the effect was temporally lasting <24h; -Not classified*

Skin sensitization: not a sensitizer*: -Not classified**

Germ cell mutagenicity: Ames test Negative*; -Not classified**

Carcinogenicity: Not available for mixture

Titanium oxide classified as “group 2B” by IARC, but the carcinogenicity of titanium dioxide is limited to lug overload conditions by dust inhalation tests. The content in this toner is considered to be modulated by their inclusion within the matrix of the mixture, not to be respirable by itself making the situation impossible to occur under intended use of this toner.

Thus, carcinogenicity of this toner mixture is concluded to be “Not classified.”

Substance titanium oxide:

Reproductive toxicity: Not available for mixture

No constituent components are classified**

STOT-single exposure: Not available for mixture

STOT-repeated exposure: Not available for mixture

Aspiration hazards: Not available for mixture

No constituent components are classified**

**data from toner with similar composition.*

***according to criteria of Regulation (EC) No 1272/2008 [CLP]*

SECTION 12 Ecological information

12.1 Toxicity

As mixture:

Fish(*Oryzias latipes*): LC_{50}(96hr) > 100mg/L (WAF)*

Crustaceans(*Daphnia magna*): EC_{50}(48hr) > 100mg/L (WAF)*

Algae(*Pseudokirchneriella subcapitata)*: E_rL_{50}(0-72h) > 100 mg/l (WAF)*

-Not Classified**

Substance quaternary ammonium salt:

Fish: LC_{50}(96hr)> 100mg/L

Crustaceans(Daphnia magna): EC_{50}(48hr): 10mg/L

Algae(Pseudokirchneriella subcapitata): E_bL_{50}(72h): 39mg/l, (NOEC: 0.20mg/l)

*-Aquatic Acute2***

12.2 Persistence and degradability

Not available for mixture

Substance Quaternary ammonium salt: Not readily biodegradable. (24% after 28days)

12.3 Bioaccumulative potential

Not available for mixture

Substance Quaternary ammonium salt: Log P_{ow}=-0.597; Not suspected to be bioaccumulative.

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment:

This mixture does not contain any substance that are assessed to be PBT or vPvB.

12.6 Other adverse effects:

Not available

**data from toner with similar composition.*

***according to criteria of Regulation (EC) No 1272/2008 [CLP]*

SECTION 13 Disposal consideration

13.1 Waste treatment methods

Dispose according to local authority requirements.

Waste should not be released to sewer or natural watercourse.

DO NOT put toner powder or container into fire.

SECTION 14 Transport information

14.1 UN number

None

14.2 UN proper shipping name

None

14.3 Transport hazard class(es)

ADR / RID / ADN:	none
IMDG Code:	none
ICAO-TI / IATA-DGR:	none

14.4 Packing group

None

14.5 Environmental hazards:

Not classified as environmentally hazardous under UN Model Regulations.

Not classified as marine pollutant under IMDG Code.

14.6 Special precautions for user:

Handling such as exposure to water, rolling, falling, or giving shock to the container may result in breakage of the inner bag and result in scattering of the mixture.

Avoid direct sunlight and hot places. (See also: Section 7)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

None

SECTION 15 Regulatory information

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

EU Regulations

Regulation (EC) No 1272/2008 [CLP]

Not classified as hazardous mixture, label not required

Regulation (EC) No 1907/2006 [REACH]

Restricted substances: None

SVHC: None*

Registration: See SECTION 3

**Up to 18th updated list issued 15-Jan.-2018*

National regulations (France):

French enforcement Decree no. 2012-232 of 17-February, 2012

Substances “Silica, treated” and “Titanium (IV) oxide,” is considered as nanomaterial, but it is considered to be modulated by their inclusion within the matrix of the mixture; thus, it is not considered to be “contained without being linked to 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

Issued according to (EC) 453/2010 Annex II amendment of REACH Annex II

Indication of changes:

2-July-2018: Updated “REACH registration” in SECTION3 and the date of SVHC in SECTION15.
SECTION 2; Deleted 1999/45/EC.
SECTION 3; Revised the upper limit for “Quaternary ammonium salt” based on the Ecotoxicity test result. Deleted 68/548/EC.
SECTION 12; Revised the information of “Quatemary ammonium salt” based on the last SDS.
SECTION 16; Deleted Symbols and Risk Phrases.

03-Nov.-2017: First issued

Abbreviations and acronyms:

FAX:	Facsimile
CLP:	Classification Labelling Packaging regulation
Flam. Sol.	Flammable Solid
Tox.	Toxicity Corr. Corrosivity
Irrit.	Irritation Dam. Damage
Sens.	Sensitization
Muta.	Mutagenicity
CAS:	Chemical Abstract Service
REACH:	Registration, Evaluation, Authorization, and Restriction of Chemicals
ppm:	parts per million (weight/weight)
AGS	Ausschuss für Gefahrstoffe
DFG	Deutsche Forschungsgemeinschaf
USA	United States of America
ACGIH:	American Conference of Governmental Industrial Hygienists
TWA:	Time weighted Average
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
app.	approximately
LC_{50}	Lethal Concentration to 50% of test population
LD_{50}	Lethal Dose to 50% of test population
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
NIOSH:	National Institute of Occupational Safety and Health
STOT-SE:	Specific Target Organ Toxicity –Single Exposure
STOT RE	Specific Target Organ Toxicity –Repeated Exposure
WAF	Water Accommodated Fraction
EC_{50}	Effective Concentration to 50% of test population
NOEC	No Observed Effect Concentration
E_rL_{50}	Effective Loading rate that causes growth rate reduction to 50%
E_bL_{50}	Effective Loading rate that causes 50% reduction in algal cell biomass
PBT	Persistent, Bioaccumulative, and Toxic
vPvB:	very Persistent and very Bioaccumulative
UN	United Nations
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
ADN:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG	International Maritime Dangerous Goods
IATA-DGR:	International Air Transport Association Dangerous Goods Regulations
ICAO-TI:	Technical Instructions for the Safe Transport of Dangerous Goods by Air
SVHC:	Substances of Very High Concern

Full text of Classification S-Phrases and Hazard Statements:

Safety Phrases	
S7	Keep container tightly closed
S22	Do not breathe dust
S60	This material and its container must be disposed as hazardous waste
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
Hazard Statements	
H320	Irritant to eyes
H332	Harmful if inhaled
H351	Suspected of causing cancer by inhalation
H411	Toxic to aquatic life with long lasting effects

Classification procedures:

Acute Tox. -oral:	Data from similar mixture and bridging principle “Dilution”
Acute tox. -inhalation:	Data from similar mixture and bridging principle “Dilution”
Skin Corr/ Irrit:	Data from similar mixture and bridging principle “Dilution”
Eye Dam/ Irrit:	Data from similar mixture and bridging principle “Dilution”
Skin Sens:	Data from similar mixture and bridging principle “Dilution”
Muta:	On basis of test data
Aquatic Acute:	Data from similar mixture and bridging principle “Dilution”
Aquatic Chronic:	Data from similar mixture and bridging principle “Dilution”

Although the information contained in this SDS is prepared to be accurate to the best of our knowledge, please be aware that health and hazard assessment may not be enough and complete.

Since SDS may be revised due to regulation changes or product modifications, please confirm if this is the latest version, especially if the revision date is outdated for two years.