

1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY UNDERTAKING

1.1 **PRODUCT IDENTIFIER**

Product name:Magenta Toner Cartridge for HP CF363A (HP 508A)Part number:24378019

1.2 IDENTIFIED USES AND USES ADVISED AGAINST

For use in: This mixture is a toner used in copiers/printers.

1.3 SUPPLIER DETAILS

Supplier:	Staples
	500 Staples Drive
	Framinghan, MA 01702
	United States
	Phone number: (503) 391-1500
	Fax: N/A
Contact Hours:	08:00AM-05:00PM CST

1.4 **EMERGENCY TELEPHONE NUMBERS**

Supplier: N/A

* This document provides safety-related information about toner contained in print cartridge for use in laser printer

2. HAZARDS IDENTIFICATION

2.1 INFORMATION and CLASSIFICATION

Overview:

Classification of the mixture: GHS: Not classified as hazardous, OSHA Hazard Communication Standard 29 CFR 1910.1200: Not classified as hazardous in accordance with Appendix A (Health Hazard Criteria) or B (Physical Hazard Criteria) to the Standard. Other hazards which do not result in classification: Physical hazards - This mixture, like most organic powders, can cause a dust explosion if particles form thick clouds; Carcinogenicity - This mixture contains Titanium Dioxide listed by IARC as Group 2B (possibly carcinogenic to humans). However, no significant exposure to Titanium Dioxide is thought to occur during the use of the product because Titanium Dioxide is mostly in a bound form in this mixture. Other information: This mixture complies with the requirements of the RoHS Directive 2011/65/EU and its amendment directives.

2.2 LABEL ELEMENTS

	Applicable Pictograms:	NO PICTOGRAM
	Danger Indications:	Label elements (Hazard, Signal words, Hazard statement and Precautionary statements): GHS - None required; OSHA Hazard Communication Standard 29 CFR 1910.1200 (Appendix C.4.30) - "Combustible Dust - Warning - May form combustible dust concentrations in air." "Keep away from all ignition sources including heat, sparks and flame. Keep container closed. Prevent dust accumulations to minimize explosion hazard." These label elements are not required if this mixture (toner) is in cartridges or sealed bottle.
	Risk Phrases:	N/A
	Safety Phrases:	N/A
~		

2.3 OTHER HAZARDS

PBT or vPvB: N/A



3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS number	Weight %	OSHA PEL	ACGIH TLV	Other
Styrene Acrylate Copolymer	TRADE SECRET	70-90			TSCA listed/exempted: Yes
Wax	TRADE SECRET	5-15			TSCA listed/exempted: Yes
Pigment	TRADE SECRET	3-10			TSCA listed/exempted: Yes
Amorphous Silica	7631-86-9	<5	20 mppcf* or 80/%	established	TSCA listed/exempted: Yes
			SiO2 mg/m3 (* million particles		
			per cubic foot)		
Titanium Dioxide	13463-67-7	<1	Total dust 15 mg/m3	10 mg/m3	TSCA listed/exempted: Yes.
			TWA: 15 mg/m3	TWA: 10 mg/m3	Mixture as particulate not otherwise classified. Refer to
			(Total Dust)		Section 8 for information on
				Particulate),	
			(Respirable	3 mg/m3	toxicological information. All the
			Fraction)	(Respirable	substances in this mixture are
				Particulate)	listed or exempted in the inventory of TSCA (USA), AICS (Australia),
					DSL (Canada), IECSC (China),
					EINECS/ELINCS (EU), ENCS (Japan), KECI (Korea), PICCS (Philippines)
					and ECN (Taiwan).

The Full Text for all R-Phrases are Displayed in Section 16 COMPOSITION COMMENTS

The Data Shown is in accordance with the latest Directives.

This section provides composition information for the toner powder contained in specially designed container inside of the print cartridge.

4. FIRST-AID MEASURES

4.1 FIRST AID MEASURES

4.1.1 FIRST AID INSTRUCTIONS BY RELEVANT ROUTES OF EXPOSURE

Inhalation:	Provide fresh air immediately. If symptoms occur, 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.
Skin contact:	Wash out particles with plenty of water and soap. If irritation develops, seek medical advice.
Ingestion:	Clean mouth out with water. Drink several glasses of water. If sickness develops, seek medical advice.

4.1.2 ADDITIONAL FIRST AID INFORMATION

Additional first aid information:	N/A
Immediate Medical Attention Required:	Immediate medical attention may be required in the unlikely event of extreme inhalation, eye contact or unusual reaction due to physical idiosyncrasy of the person.

4.2 SYMPTOMS AND EFFECTS

Acute Symptoms from Exposure:	Eye contact: Irritation may occur by mechanical abrasion. Skin contact: Minimal skin irritation may occur. Inhalation: Slight irritation of respiratory tract may occur with exposure to large amount of toner dust. Ingestion: Ingestion is an unlikely route of entry under normal conditions of use.
Delayed Symptoms from Exposure:	N/A

4.3 IMMEDIATE SPECIAL TREATMENT OR EQUIPMENT REQUIRED

Product: Magenta Toner Cartridge for	Revision date: 11/11/2018
HP CF363A (HP 508A)	



N/A

5.	5. FIRE-FIGHTING MEASURES		
5.1	EXTINGUISHING MEDIA		
	Recommended Extinguishing Media:	Water, foam, dry chemical	
	Extinguishing Media Not to be Used:	None known.	
5.2	SPECIAL HAZARD		
	Unusual Fire/Explosion Hazards:	Toner, like most organic powders, is capable of creating a dust explosion when particles form thick clouds in the presence of an ignition source. Carbon monoxide and	
	Extinguishing Media Not to be Used:	carbon dioxide are hazardous resulting gases. N/A	

5.3 ADVICE FOR FIRE FIGHTERS

Avoid inhalation of smoke. Wear protective cloting an wear self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1 **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

6.1.1 **PRECAUTIONS FOR NON-EMERGENCY PERSONNEL**

Avoid dispersal of dust in the air. (Do not clear dust surfaces with compressed air.). Do not breathe dust.

6.1.2 **ADDITIONAL FIRST AID INFORMATION**

N/A

6.1.3 PERSONAL PROTECTION

Wear personal protective equipment as described in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS

Regulatory Information: Keep product out of sewers and watercourses.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANUP

Spill or Leak Cleanup Procedures: Eliminate sources of ignition including sparks and flammables. Non-sparking 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 material in accordance with Federal/state/local requirements.



7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Recommendations for Handling:No special precautions when used as intended. Keep containers closed, avoid creating dust.
Keep away from ignition sources.Advice on General Hygiene:Never eat, drink or smoke in work areas. Practice good personal hygiene after using this
material, especially before eating, drinking, smoking, using the restroom, or applying
cosmetics.

7.2 CONDITIONS FOR SAFE STORAGE

Avoid high temperatures, >100°F/32°C

7.3 SPECIFIC END USES

Printing devices

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 3). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

8.2 EXPOSURE CONTROLS

Respiratory protection:

IMPROPER USE OF RESPIRATORS IS DANGEROUS. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, levels of airborne contamination, and sufficient levels of oxygen.

Eye/Face Protection:

Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Hand/Skin Protection:

For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. WARNING! Air purifying respirators do not protect worker in oxygen deficient atmospheres.

Additional Protection:

N/A

Protective Clothing and Equipment:

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear splashproof chemical goggles and face shield when working with liquid, unless full face piece respiratory protection is worn.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment. Never take home contaminated clothing.

Comments:

Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or applying cosmetics.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 **DETAIL INFORMATION**

Physical state:	APPEARANCE: Fine magenta powder
Color:	Magenta
Odor:	None or slight plastic odor
Odor threshold:	N/A
Boiling point: Melting point: Flash point: Explosion limits: Relative density: Auto-ignition temperature:	N/A N/A N/A 1.0-1.5 N/A

9.2 OTHER INFORMATION

SOLUBILITY: Negligible in water. Partially soluble in some organic solvents such as Toluene and Tetrahydrofuran.

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity:

	Reactivity Hazards: Data on Mixture Substances:	None None
10.2	Chemical Stability:	The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
10.3	Hazardous Polymerization:	Stable under conditions of normal use.
10.4	Conditions to Avoid:	Keep away from heat, flame, sparks and other ignition sources.
10.5	Incompatible Materials:	Strong oxidising materials
10.6	Hazardous Decomposition:	Will not occur.



11. INFORMATION ON TOXICOLOGICAL EFFECT

Mixtures: 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, seriously damaging effect is not expected when this mixture, seriously damaging effect is not expected when this mixture is treated in accordance with standard industrial practices and federalistacifical equipments. Refer to Section 2 for potential health effects and Section 4 for first aid measures. Acute Toxicity: Oral: LDS of a > 5,000 mg/kg (DECD 425) (a similar product) Skin Corrosion/Irritation: N/A Sensitization: Representation: Bensitization: Acute Toxicity: Carcinogenicity: Area test: (Salmonella typhimurium, Escherichia coli) negative. (a similar product) No test data available. Ttanium Dioxide is Carcinograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible area source levels are assumed to be lower in the user industries, with the possible area that exposure levels are assumed to be lower in the user industries, with the possible area. In annull oxide is thought to occur during the use of the product. Reproductive Toxicity: No test data available. Ttanium Dioxide is this mixture is classified area. In annull moxing is a stributed to a damage and over lead to an accumulation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) that is a stributed to a damage and overload of the lung clearance and refact is not lower is a stributed to a damage and overindat to an signific an dareact fibrotic changes in		
Acute Toxicity: Skin Corroslon/irritation: Skin Corroslon/irritation: N/AAcute Toxicity: Skin Corroslon/irritation: N/ASerious Eye Damage: Inhalation:Mutagenicity: Carcinogenicity:Mutagenicity: Carcinogenicity:Ames test Galamolia Diversity: Carcinogenicity:Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitization: No test data available. Thanium Dixide by Mutle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IMRC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries with the possible carcinogenic to humans): however, inhalation tests of Tianium Dixide by Mutle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IMRC monograph vol. 93 states that exposure levels are assumed to be lower in the user in dustries with the possible carcinogenic to humans): however, inhalable. Inhalation tests of Tianium Dixide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dixide in this mixture is classified for reproductive toxicity. No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to Totanium Jointic and the secondard in the lung of wats. In hamsters, these effects were only observed at significant functions (> 20 mg/m3). The particle accumation in the lung is earling and the no-observable- derived with the industria is not an effect specific to tour dust but is generally observed when high concentrations of other, slighty slouble dust are inhaled. The iowest-observable-effect-level (LOEL) was its not an effect specific tourer dust but is generally ob	Mixtures:	
Federal/state/local requirements. Refer to Section 2 for potential health effects and Section 4 for first aid measures.Acute Toxicity:Oral: LD50 rat > 5,000 mg/kg (DECD 425) (a similar product)Skin Corrosion/Irritation:N/ASentous Eye Damage: Inhalation:N/AMagenicity:Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitizer.Carcinogenicity:Ames test (Salmonella typhimurium, Escherichia coli) negative, (a similar product)Carcinogenicity:No test data available. Thainum Dioxide is listed by IARC as Group 28 (possible) carcinogenic to humans); however, inhalation tests of Titanium Dioxide by Muhle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 23 attes that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide this mixture is dishini a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is though to occur during the use of the product.Reproductive Toxicity: STOT - Single Exposure:N/ASTOT - Multiple Exposure: M/ANo test data available. Inhalation tests of a tone for two years showed no significant carcinogenicity, (Reference 1 - rest Data) In rats, chnoing in the used of the product.N/ANo beserved wen high concentrations (> 20 mg/m3). The particle accumulation in the lung significant ty ingher concentrations (> 20 mg/m3) in hansters, these effects were only observed at significant ty high concentrations (> 20 mg/m3) in hansters.Reference 1multis generally observed when high concentrations (> 20 mg/m3) in hanste		
Acute Toxicity: Skin Corrosion/irritation: Skin Corrosion/irritation: Serious Eye Damage: NA NA Sensitization:Initial acute NA NA Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitizer. Ames test Galmonell at typhinurium, Escherichia coll) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 28 (possibly carcinogenic to humans): however, inhalation tests of Titanium Dioxide by Muhe et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industrise, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide is thought to occur during the use of the product. No test data available. Inhalation tests of a some for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in fast, chronic exposure to toner concentrations 4 argina and over lead to an accurulation of particles in the lung as well as to persistent inflammatory processes and slight to moderate fibratic changes in the lungs of rats. In hamsters, these effects were only observed at significant type and over lead to the use greative to date and use of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is attributed to a damage and overload of the lung lissue of the experimental animals is atributed to a damage and overload of the lun		
Acute Toxicity: Oral: LDS0 rat > 5,000 mg/kg (OECD 425) (a similar product) Skin Corrosion/Irritation: N/A Serious Eye Damage: N/A Inhalation: N/A Sensitization: Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a reginitatory sensitizer. Mutagenicity: Ames test (Salinonella typhimurium, Escherichia coli) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 28 (possibly carcinogenic to humans), however, inhalation tests of Titanium Dioxide by Muhle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industrise, with the possible exception of workers who handle large quantities of Titanium Dioxide. Thanium Dioxide in this mixture is classified for reproductive toxicity. No Est data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to Trans. In boxide is through a do ver lead to an accumulation of particles in the lung as to persistent inflammatory processes and slight to moderate fibrotic changes in the lungs of rats. In hamsters, these effects were only observed at significant higher concentrations of other, slightly soluble dusts are inhaled. The lowest-observable-effect-level (LOEL) was 4 mg/m3 and the no-observable-effect-level (LOEL) was 4 mg/m3 and the no-observable-effect-level (LOEL) was 1 mg/m3 in tansters. Reference 1 - N/A N/A Delayed/Immediate Effects N/A		
Skin Corrosion/Irritation: N/A Serious Eye Damage: N/A Sensitization: N/A Sensitization: Respiratory Sensitization: No test data available. None of the substances in this mixture is dassified as a respiratory sensitizer. Mutagenicity: Ames test (Salmonella typhimurium, Escherichia coll) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, inhalation tests of Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product. STOT - Single Exposure: No test data available. None of the substances in this mixture is classified for reproductive toxicity. NA STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to none concentrations 4 mg/m3 and over lead to an accumulation of particles in the lung or rats. In hamsets. These effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle accumulation in the lung lissue of the experimental animals is attributed to a damage and overload of the lung clearance machanisms and is called "lung areat echninge and in the observable-effect-level (LOEL) was 1 m		
Serious Eye Damage: N/A Inhalation: N/A Sensitization: Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitizer. Mutagenicity: Arnes test (Salmonella typhimurium, Escherichia coli) negative, (a similar product) Carcinogenicity: Arnes test (Salmonella typhimurium, Escherichia coli) negative, (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 22 (possible carcinogenic to humans); however, inhalation tests of Titanium Dioxide is hyduline et al. (Reference 2 Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide is the user industries. Reproductive Toxicity: NO test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) In rats, chronic exposure to tomer concentrations 4 mg/m3 and vore lead to an accumulation of particles in the lungs of rats. In hamsters, these effects were only observed at significantly ingher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the experimental animals is attributed to a damage and overlead 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 (> 20 mg/m3). The particle accumulation in the lowes observable-effect-level (LOEL) was 4 mg/m3 an hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to	-	· ·
Inhalation: N/A Sensitization: N/A Sensitization: Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitizer. Mutagenicity: Amestest (Satimonella typhimurium, Escherichia coli) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, inhalation tests of Titanium Dioxide is this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is this instruce is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product. Reproductive Toxicity: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lungs or stal. In hamsters, these effects were only observed at significantly higher concentrations 4 overload of the lung tiesue 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 orer during the sec of the experimental animals is attributed to a damage and overload of the lung clearance and retention under the normal use of this product is estimated to be less than 1 mg/m3. Ingestion: N/A Mixiur on Market Data N/A No Reference 2 - Test Data) To rats. No hamsters, these effec	-	
Sensitization:Respiratory Sensitization: No test data available. None of the substances in this mixture is classified as a respiratory sensitizer.Mutagenicity:Ames test (Salmonella typhimurium, Escherichia coli) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 28 (possibly carcinogenic to humans), however, inhalation tests of Titanium Dioxide by Muhie et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide is thought to occur during the use of the product. No test data available. None of the substances in this mixture is classified for reproductive toxicity. N/ASTOT - Single Exposure:No test data available. None of the substances 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 of targ. In particle accumulation in the lung test of the experimental animals is attributed to a damge and overload of the lung clearance mechanisms and is called "lung overdading". This is not an effect specific to torer dust but is generally observed when high concentrations of the significant N/A N		
Mutagenicity: Carcinogenicity: Mutagenicity: Ames test (Salmonella typhimurium, Escherichia coli) negative. (a similar product) No test data available. Titanium Dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, inhalation tests of Titanium Dioxide is hits the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide is misture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product. STOT - Multiple Exposure: STOT - Multiple Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to tome concentrations 4 mg/m3 and over lead to an accumulation of particles in the lungs of rats. In hamsters, these effects were only observed at significantly ingher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the experimental animals is attributed to a damage and overlead 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 (> 20 mg/m3). The particle accumulation in the lowes: observable-effect-level (LOEL) was 4 mg/m3 in hamsters. (Reference 1) "Negative Effect of Long-term Inhalation of Torer on Formation of B+hydroxydeoxyguanosine in DNA in the Lungs of Rats in Ywo", Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) p.749-753 (2005). (Reference 2) Stube sy Muhie, Beilmann, CreutZendere 1) "Negative Effect of Long-term Inhalatio		•
Carcinogenicity:No test data available. Titanium Dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans): however, inhalation tests of Titanium Dioxide by Muhle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product.Reproductive Toxicity: STOT - Multiple Exposure: STOT - Multiple Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) in rats, chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lungs or rats. In hamsters, these effects were only observed wise fibrotic charges in the lungs or rats. In hamsters, these effects were only observed wise fibrotic charges in the lung of rats. In hamsters. (Reference 2 - Test Data) in rats. The NOEL was greater than 6 mg/m3 in hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3. N/AIngestion: Hazard Class Information: Mixture on Market Data: N/AN/AReference 1 * NyA Delayed/immediate Effects: N/AN/AReference 1 * NyA N/AN/AMixture on Market Data: Symptoms: N/AN/AN/A Delayed/immediate Effects: N/AN/ARest data and Mixture: Reference 1 * NyA N/AN/AMixture on Market Data: N/AN/		classified as a respiratory sensitizer.
 humans): however, inhalation tests of Titanium Dioxide by Muhle et al. (Reference 2 - Test Data) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product. Reproductive Toxicity: STOT - Single Exposure: STOT - Multiple Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) 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 (> 20 mg/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 caller "lung overloading". This is not an effect specific to torer 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 Torer concentration under the normal use of this product is estimated to be less than 1 mg/m3. N/A Hazard Class Information: N/A Maxture on Market Data: N/A Delayed/Immediate Effects: N/A Reference 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. A		
showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of Titanium Dioxide. Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product.Reproductive Toxicity: STOT - Single Exposure: STOT - Multiple Exposure: A No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) 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 (> 20 mg/m3). The particle accumulation in 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-boservable-effect-level (LOEL) was 1 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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion: Hazard Class Information: M/AN/ADelayed/Immediate Effects: N/ADelayed/Immediate Effects: N/ADelayed/Immediate Effects: N/ADelayed/Immediate Effects: N/ACreutzenberg et al. "Lung Clearance	Carcinogenicity:	
Reproductive Toxicity: STOT - Single Exposure: STOT - Multiple Exposure: N/ANo test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) In rats, chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lungs of rats. In hamsters, these effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the eynotance with the lung of rats. In hamsters, these effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the expenimental 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, significant to tage and overload of the lung tissue of the expension under the normal use of this product is estimated to be less than 1 mg/m3. N/AIngestion: Hazard Class Information: Test Data on Mixture:N/A (Reference 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. 1 (13) p.749-753 (2005). (Reference 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. 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. To		
handle large quantities of Titanium Dioxide. Titanium Dioxide in this mixture is within a small quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is thought to occur during the use of the product. No test data available. None of the substances in this mixture is classified for reproductive toxicity. N/ASTOT - Single Exposure: STOT - Multiple Exposure: NANo test data available. Inhalation tests of a toner for two years showed no significant caricogencity. (Reference 1 - Test Data) In rats, chronic exposure to tomer 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 (> 20 mg/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 lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed lung overloading". This is not an effect specific to toner dust but is generally observed		
quantity and mostly in a bound form. Therefore, no significant exposure to Titanium Dioxide is though to occur during the use of the product. No test data available. None of the substances in this mixture is classified for reproductive toxicity. NIASTOT - Single Exposure: STOT - Multiple Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) In rats, chronic exposure to toner concentrations 4 mg/m3 and over lead to an 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 and the no		
Reproductive Toxicity: No test data available. None of the substances in this mixture is classified for reproductive toxicity. N/ASTOT - Single Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant caricniogenicity. (Reference 1 - Test Data) 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 (> 20 mg/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 (IOCL) was 4 mg/m3 in hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AMixture on Market Data: Symptoms:N/AN/AN/ADelayed/Immediate Effects: inforing in hamsters: (Reference 1) "Negative Effect of Long-term Inhalation of Toner on Formation of chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.300-313. "Lung clearance and retention of toner, TiO2, and crystalline Silica upon chronic inhalation exposure in rundam. Appl. Toxicol. 17 (1991) p.230-239. "Unlinenary response to toner rupon chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.200-239. "Unlinenary response to toner, TiO2, and crystalline Silica upon chronic inhalation exposure in syrian golden hamst		
Reproductive Toxicity: STOT - Single Exposure: STOT - Multiple Exposure: No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) 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 significant 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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3. N/A Hazard Class Information: N/A N/A Mixture on Market Data: N/A N/A Delayed/Immediate Effects: N/A Creitzehorg et al. "Lung clearance and retention 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) p.749-753 (2005). (Reference 2) Studies by Muhle, Bellmann, Creutznberg 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 rats." Fundam. Appl. Toxicol 17 (1991) p.280-299. "Pulmonary response to toner, TiO2, and crystalline Silica upon chronic inhalation exposure in		
STOT - Single Exposure: STOT - Multiple Exposure:N/ASTOT - Multiple Exposure:N/ASTOT - Multiple Exposure:No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) In rats, chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lungs of rats. In hamsters, these effects were only observed at significantly higher concentrations (> 20 mg/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 in hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:Reference 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) p.749-753 (2005). (Reference 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 upon chronic inhalation exposure in rats." Inhal. Toxicol. 2 (1909) p.341-360. "Pulmonary response to toner upon chronic inhalation exposure in rats." Inhal. Toxicol. 10 (1998) p.731-751. "	Poproductivo Toxicityu	
STOT - Multiple Exposure:No test data available. Inhalation tests of a toner for two years showed no significant carcinogenicity. (Reference 1 - Test Data) 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 (> 20 mg/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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/ASymptoms:N/ADelayed/Immediate Effects:N/AReference 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) p.749-753 (2005). (Reference 2) Studies by Muhle, Belimann, Creutzenberg et al. "Lung clearance and retention of toner, tilizing a tracer technique during chronic inhalation exposure in rats." Fundan. 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 rats." Fundan. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to tone	. ,	
 carcinogenicity. (Reference 1 - Test Data) In rats, chronic exposure to toner oncentrations 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 (> 20 mg/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 (LOEL) was 1 mg/m3 in hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3. Ingestion: N/A MA Mazard Class Information: N/A M/A Delayed/Immediate Effects: N/A Reference 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) p.749-753 (2005). (Reference 2) Studies by Muhle, Bellmann, Creutzenberg et al. "Lung clearance and retention of toner, utilizing a tracer technique during chronic inhalation exposure in Tats." Fundam. Appl. Toxicol 17 (1991) p.200-313. "Lung clearance and retention of toner, TiO2, and crystalline Silica. upon chronic inhalation exposure in Syrian golden hamsters." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in Tats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in trats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. <l< th=""><th></th><th>•</th></l<>		•
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 (> 20 mg/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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/ASymptoms:N/ADelayed/Immediate Effects:N/ADelayed/Immediate Effects:N/ACreutenberg 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 rats." Fundam. Appl. Toxicol. 10 (1998) p.731-751. "Subchronic 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 rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inha		
Inflammatory processes and slight to moderate fibrotic changes in the lungs of rats. In hamsters, these effects were only observed at significantly higher concentrations (> 20 mg/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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information: Mixture on Market Data: Symptoms:N/ADelayed/Immediate Effects: N/ADelayed/Immediate Effects: and network of the exposure in rats." Fundam. Appl. Toxicol 17 (1991) p.300-313. "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, inviciol. 17 (1991) p.300-313. "Lung clearance inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.300-313. "Lung clearance inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.20-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in rats." Inhal. Toxicol. 20 (1991) p.300-313. "Subchronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.20-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in rats." Inhal. Toxicol. 20 (1990) p.341-360. "Pulmonary response to toner inhalation exposure in rats." Fundam. Appl. Tox		
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 to ener 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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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 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. 2 (1990) p.341-360. "Pulmonary response to toner yrian golden hamsters." Inhal. Toxicol. 10 (1998) p.731-751. "Subchronic 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.<		
Ingestion:N/AHazard Class Information:N/ABelayed/Immediate Effects:N/ADelayed/Immediate Effects:N/ACreutzenberg et al. "Lung clearance and returns". "Fundam. Appl. Toxicol. 17 (1991) p.300-313. "Lung clearance and retention of toner, TiO2 and crystalline Silica. 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 Tats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in Tats." 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.679-729.Not Meeting Classification:N/ARoutes of Exposure:N/ANot Meeting Classification:N/AN/AN/ANot Meeting Classification:N/ANot Meeting Classification:N/ARoutes of Exposure:N/AN/AN/ANot Meeting Classification:N/AN/AN/AAbsence of Specific Data:N/A		these effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle
Ingestion:N/AHazard Class Information:N/ADelayed/Immediate Effect:N/AVertice Note:N/AControl inhalation exposure in Syrian golden hamsters:Finder in the surfact. Surfaction:Ingestion:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ANestion:N/ANestion:N/AN/ADelayed/Immediate Effects:N/AN/ANestion:N/AN/ADelayed/Immediate Effects:N/AN/ADelayed/Immediate Effects:N/ANot Meeting Classification:N/AN/AN/AN/AN/ADelayed/Immediate Effects:N/AN/AN/ADelayed/Immediate Effects:N/AN/AN/AN/AN/AN/AN/AN/AN/ADelayed/Immediate Effects:N/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/AN/ANot Meeting Classification:N/AN/AAbsence of Specific Data:N/AAbsence of Specific Data:N/AAbsence of Specifi		
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. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/AReference 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) p.749-753 (2005). (Reference 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, utilizing a tracer technique during chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 10 (1998) p.731-751. "Subchronic inhalation exposure in rats." Fundam. Appl. Toxicol. 10 (1998) p.731-751. "Subchronic 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. 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.Not Meeting Classification:N/ARoutes of Exposure:N/AAbsence of Specific Data:N/A		
effect-level (NOEL) was 1 mg/m3 in rats. The NOEL was greater than 6 mg/m3 in hamsters. (Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:N/AReference 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) p.749-753 (2005). (Reference 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 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. 1 (1998) p.699-729.Not Meeting Classification: Routes of Exposure: N/AN/AAbsence of Specific Data:N/A		
Ingestion:(Reference 2 - Test Data) Toner concentration under the normal use of this product is estimated to be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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." 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.Not Meeting Classification:N/ARoutes of Exposure: Interactive Effects:N/AAbsence of Specific Data:N/A		
Ingestion:be less than 1 mg/m3.Ingestion:N/AHazard Class Information:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:N/ACreater Data on Mixture:N/ARoutes of Exposure:N/ANormanne:N/ANeight of the exposure:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANormanne:N/ANot Meeting Classification:N/ANot Meeting Classification:N/ANot Meeting Classification:N/AAbsence of Specific Data:N/ANotN/A		
Ingestion:N/AHazard Class Information:N/AMixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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 study of toner in rats." Fundam. Appl. Toxicol. 10 (1998) p.731-751. "Subchronic inhalation study of toner 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. 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.Not Meeting Classification: Routes of Exposure: Interactive Effects: Absence of Specific Data:N/AN/AN/A		
Hazard Class Information: Mixture on Market Data: Symptoms:N/A N/ADelayed/Immediate Effects: Test Data on Mixture:N/ARest Data on Mixture:N/ANot Meeting Classification: Routes of Exposure: Interactive Effects:N/ANot Meeting Classification: Routes of Specific Data:N/ANot Meeting Classification:N/ANot Meeting Classification:N/A<		
Mixture on Market Data:N/ASymptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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 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.Not Meeting Classification:N/ARoutes of Exposure: Interactive Effects:N/AAbsence of Specific Data:N/A	-	
Symptoms:N/ADelayed/Immediate Effects:N/ATest Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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 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. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in syrian golden hamsters." Inhal. 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.Not Meeting Classification:N/ARoutes of Exposure:N/AInteractive Effects:N/AAbsence of Specific Data:N/A		•
Delayed/Immediate Effects:N/ATest Data on Mixture:N/A(Reference 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) p.749-753 (2005). (Reference 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 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 rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica 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.Not Meeting Classification:N/ARoutes of Exposure:N/AAbsence of Specific Data:N/A		
Test Data on Mixture:(Reference 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) p.749-753 (2005). (Reference 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 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. 17 (1991) p.280-299. "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in Syrian golden hamsters." Inhal. 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.Not Meeting Classification: Interactive Effects:N/ANotMeeting Classification: N/AN/A	<i>z</i> .	
 8-Hydroxydeoxyguanosine in DNA in the Lungs of Rats in Vivo", Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) p.749-753 (2005). (Reference 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. Not Meeting Classification: N/A Not Meeting Classification: N/A Absence of Specific Data: N/A 		
Toxicology, Vol. 17 (13) p.749-753 (2005). (Reference 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." Fundam. Appl. 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.Not Meeting Classification: Routes of Exposure: Interactive Effects:N/AN/AN/AAbsence of Specific Data:N/A		
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 		
 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. Not Meeting Classification: N/A Routes of Exposure: N/A Absence of Specific Data: N/A 		
 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. Not Meeting Classification: N/A Routes of Exposure: N/A Absence of Specific Data: N/A 		
 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. Not Meeting Classification: N/A Routes of Exposure: N/A Interactive Effects: N/A Absence of Specific Data: N/A 		and retention of toner, TiO2, and crystalline Silica, utilizing a tracer technique during chronic
 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. Not Meeting Classification: N/A Routes of Exposure: N/A Interactive Effects: N/A Absence of Specific Data: N/A 		inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.731-751. "Subchronic
 "Pulmonary response to toner, TiO2 and crystalline Silica upon chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.699-729. Not Meeting Classification: N/A Routes of Exposure: N/A Interactive Effects: N/A Absence of Specific Data: N/A 		inhalation study of toner in rats." Inhal. Toxicol. 2 (1990) p.341-360. "Pulmonary response to toner
Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.699-729. Not Meeting Classification: N/A Routes of Exposure: N/A Interactive Effects: N/A Absence of Specific Data: N/A		
Not Meeting Classification:N/ARoutes of Exposure:N/AInteractive Effects:N/AAbsence of Specific Data:N/A		
Routes of Exposure:N/AInteractive Effects:N/AAbsence of Specific Data:N/A		
Interactive Effects: N/A Absence of Specific Data: N/A		
Absence of Specific Data: N/A		
•		
Mixture vs Substance Data: N/A	-	•
	Mixture vs Substance Data	N/A



12. ECOLOGICAL INFORMATION

12.1 Eco toxicity:	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.
12.2 Degradability:	N/A
12.3 Bioaccumulation Potential:	N/A
12.4 Mobility in Soil:	N/A
12.5 PBT & vPvB Assessment:	N/A
12.6 Other Adverse Effects:	None known.

13. DISPOSAL CONSIDERATIONS

Disposal Information:

Dispose as a solid waste in accordance with local authority regulations. Empty container retains product residue.

Physical/Chemical Properties that affect Treatment:

Symbol: This product is not classified as dangerous

Risk Phrases: This product is not classified according to the federal, state and local environmental regulations.

Waste Treatment Information:

Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Finely dispersed particles may form explosive mixtures in air. Dispose of in compliance with federal, state, and local regulations.

Personal Protection Required:

N/A

14. TRANSPORT INFORMATION		
14.1 ID Number:	None. Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.	
14.2 Shipping Name:	None. Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.	
14.3 Hazard Class:	None. Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.	
14.4 Packing Group:	N/A	
14.5 Environmental Hazards:	Not a marine pollutant according to the IMDG Code. Not environmentally hazardous according to the UN Model Regulations, ADR, RID or ADN.	
14.6 User Precautions:	Do not open or break a container during transportation unless absolutely needed.	
14.7 Bulk Transport:	N/A	



15. REGULATORY INFORMATION

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

EPA Regulatory Information: N/A

CERCLA Reportable Quantity: Not applicable to this mixture.

15.2 Superfund Information:

Hazard Categories:

Immediate: N/A

Delayed: N/A

Fire: N/A

Pressure: N/A

Reactivity: N/A

Section 302 - Extremely Hazardous: Not applicable to this mixture.

Section 311 - Hazardous: 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.

15.3 State	Regulations:	California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): This product is in compliance with the regulation as all ingredients are bound within the mixture.	
15.4 Other	Regulatory Information:	This mixture complies with the requirements of the RoHS Directive 2011/65/EU and its amendment directives. Please refer to any other Federal/state/local measures that may be relevant.	
16. OTHEI	R INFORMATION		
General Co	gua	This information is based on our current knowledge. It should not therefore be construed as guaranteeing specific properties of the products as described or their suitability for a particular application	

Creation Date of this SDS: 07/16/2019



Key to Abbreviations and Acronyms used in this sheet:

ACGIH = American Conference of Governmental Industrial	NIOSH = National Institute for Occupational Safety and Health
Hygienists	
CERCLA = Comprehensive Environmental Response Compensation	OSHA = Occupational Health and Safety Administration
and Liability Act	
CLP = Classification, Labeling, and Packaging	PEL = Permissible Exposure Limit
DSD = Dangerous Substances Directive	SCBA = Self Contained Breathing Apparatus
EPA = Environmental Protection Agency	STOT = Specific Target Organ Toxicity
GHS = Globally Harmonized System	TLV = Threshold Limit Value
N/A = Not Applicable	UK = United Kingdom
NFPA = National Fire Protection Association	UN = United Nations

Ref:

DISCLAIMER

All trademarks and models referenced are property of their respective holders and are used for identification purposes only.

These products are not sponsored by, affiliated with, manufactured by or distributed by the named manufacturers.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.