

Material Safety Data Sheet

Material Name: Thermoplastic Powder

MSDS ID: TROY-001

*** Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ***

Material Name: Thermoplastic Powder

Manufacturer's Part Number: TROY Group cartridge TROY LJ/4+/5 MICR Toner Cartridge

Manufacturer Information

TROY GROUP Inc.
Three Bryan Drive
Wheeling, WV 26003

Phone: 304-232-0899

Emergency # CHEMTREC (800) 424-9300
CHEMTREC International (703) 527-3887

Product Use

This product is a MICR toner preparation that is used in the TROY/HP Laserjet LJ/4+/5 series printers.

*** Section 2 - HAZARDS IDENTIFICATION ***

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

EMERGENCY OVERVIEW

Color: black

Physical Form: powder

Odor: slight

Health Hazards: respiratory tract irritation, skin irritation, eye irritation

Physical Hazards: Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS

None of the ingredients have been classified as carcinogens according to EU, IARC, MAK, NTP, OSHA, or ACGIH.

Inhalation

Short Term: irritation

Long Term: no information on significant adverse effects

Skin

Short Term: mechanical irritation

Long Term: no information on significant adverse effects

Eye

Short Term: mild irritation

Long Term: no information on significant adverse effects

Ingestion

Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

CAS	Component	Percent
Proprietary	Polyester Polyurethane Resin	40-70
1317-61-9	Ferric oxide black	15-40
Proprietary	Polymer	3-7
7631-86-9	Silica, amorphous	< 2

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Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Particulates not otherwise classified (PNOC).

*** Section 4 - FIRST AID MEASURES ***

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get medical attention if irritation persists.

Skin

If an adverse effect occurs, wash skin with soap and water for at least 15 minutes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Ingestion

If a large amount is swallowed, get medical attention.

*** Section 5 - FIRE FIGHTING MEASURES ***

See Section 9 for Flammability Properties

Flammable Properties

Slight fire hazard. Dust/air mixtures may ignite or explode.

Extinguishing Media

carbon dioxide, regular dry chemical, regular foam, water

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Hazardous Combustion Products

Combustion: carbon monoxide, carbon dioxide

*** Section 6 - ACCIDENTAL RELEASE MEASURES ***

Occupational spill/release

Use methods to minimize dust. Clean up residue with a high-efficiency particulate filter vacuum. Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers.

*** Section 7 - HANDLING AND STORAGE ***

Handling Procedures

Use methods to minimize dust. Keep out of the reach of children. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep away from heat, sparks and flame.

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Store at room temperature. Keep container tightly closed. Keep dry. Keep separated from incompatible substances.

*** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ***

Component Exposure Limits

ACGIH: 10 mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended)

OSHA (US): 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Silica, amorphous (7631-86-9)

NIOSH: 6 mg/m³ TWA
3000 mg/m³ IDLH

OSHA (US): 20 mppcf TWA; ((80)/(% SiO₂)) mg/m³ TWA

Ventilation

Use only in well ventilated areas.

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PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

*** Section 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

Physical State: Solid	Appearance: dry
Color: black	Physical Form: powder
Odor: slight	Odor Threshold: Not available
Melting Point: Not available	Boiling Point: Not applicable
Vapor Pressure: Not applicable	Vapor Density (air = 1): Not applicable
Density: Not available	Specific Gravity (water = 1): Not available
Water Solubility: Not available	Coeff. Water/Oil Dist: Not available

*** Section 10 - STABILITY AND REACTIVITY ***

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials. Avoid direct sunlight. Imaging drum (OPC) – Exposure to light.

Materials to Avoid

oxidizing materials

Decomposition Products

carbon monoxide, carbon dioxide

Hazardous Decomposition

Combustion: carbon monoxide, carbon dioxide

Possibility of Hazardous Reactions

Will not polymerize.

*** Section 11 - TOXICOLOGICAL INFORMATION ***

Acute and Chronic Toxicity

No data available.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Ferric oxide black (1317-61-9)

Oral LD50 Rat >10000 mg/kg

Silica, amorphous (7631-86-9)

Oral LD50 Rat >5000 mg/kg; Inhalation LC50 Rat >2.2 mg/L 1 h; Dermal LD50 Rabbit >2000 mg/kg

Component Carcinogenicity

Silica, amorphous (7631-86-9)

IARC: Monograph 68 [1997]; Supplement 7 [1987] (Group 3 (not classifiable as to carcinogenicity to humans))

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*** Section 12 - ECOLOGICAL INFORMATION ***

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

*** Section 13 - DISPOSAL CONSIDERATIONS ***

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

*** Section 14 - TRANSPORT INFORMATION ***

Transportation

Not regulated.

US DOT Information

Not regulated.

*** Section 15 - REGULATORY INFORMATION ***

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312

Acute Health: No Chronic Health: No Fire: No Pressure: No Reactive: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Silica, amorphous	7631-86-9	Yes	Yes	Yes	No	Yes	No

Not regulated under California Proposition 65

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification

Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

U.S. Inventory (TSCA)

All of the components of this product are listed on the TSCA Inventory.

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Polyester Polyurethane Resin	Proprietary	Yes	-	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Ferric oxide black	1317-61-9	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Polymer	Proprietary	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Silica, amorphous	7631-86-9	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

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*** Section 16 - OTHER INFORMATION ***

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.