

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier : MX-237AT / MX-237CT / MX-237FT / MX-237GT / MX-237NT / MX-237XT
MX-238AT / MX-238CT / MX-238FT / MX-238GT / MX-238XT

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

Use of the Substance/ Mixture : Reprographic agents (Black Toner)

1.3 Details of the supplier of the safety data sheet

Company / Japan : SHARP Corporation
2-1-25, Kyutaromachi, Chuo-ku, Osaka city, Osaka 541-8522, JAPAN

Local suppliers are listed below. Please contact the nearest supplier for additional information.

Area	(Country)	(Local suppliers)
North America	U.S.A.	Sharp Electronics Corporation 100 Paragon Drive, Montvale, New Jersey 07645-1779 Telephone number : 800-237-4277 Emergency telephone number : 800-255-3924
	Canada	Sharp Electronics of Canada Ltd. 5995 Avebury Road, Suite 900, Mississauga, Ontario L5R 3P9 Telephone number : 905-890-2100 Emergency telephone number : 1-800-255-3924
Oceania	Australia	Sharp Corporation of Australia PTY. Ltd. 2 Julius Avenue North Ryde NSW 2113 Telephone number : 1300-13-50-22
Europe	France	SHARP Manufacturing France S.A. Route de Bollwiller, 68360 Soultz, Haut Rhin, France Telephone number : +49 40 2376-0 Emergency telephone number : +49 40 2376-2525 (from 9:00 to 17:00 CET/CEST, English, German Only) E-mail address : compliance@sharp.eu
Middle East	U.A.E.	Sharp Middle East FZE P.O.Box 17115 Jebel Ali, Dubai Telephone number : 04-8815311

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (GHS)

Not Classified as hazardous

2.2 Label elements

Labelling (GHS)

Hazard symbol : None

Signal word : None

Hazard statements : None

Precautionary statements : None

2.3 Other hazards

Potential dust explosion hazard.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Components**

Chemical Name	CAS-No.	Concentration (%)
Styrene-Acrylate copolymer	Confidential	80-90
Carbon Black	1333-86-4	5-10
Iron oxide	1317-61-9	1-5
Polypropylene	Confidential	1-5
Polyethylene	Confidential	1-5
Charge control agent	Confidential	1-5
Amorphous silica	7631-86-9	0.1-1

SECTION 4: First aid measures**4.1 Description of first aid measures.**

- If inhaled : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen. Get medical attention.
- In case of skin contact : Remove contaminated clothing and shoes.
Get medical attention if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : If in eyes, rinse well with water.
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, get medical attention.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Dust contact with the eyes can lead to mechanical irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Exposure to combustion products may be a hazard to health.
Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions

- Environmental precautions : Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
- Advice on safe handling : Do not breathe dust. Do not swallow. Avoid contact with eyes.
Handle in accordance with good industrial hygiene and safety practice.
Minimize dust generation and accumulation.
Keep away from heat and sources of ignition.
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage : Keep tightly closed. Keep in a cool, well-ventilated place.
- areas and containers : Be stored in accordance with the particular national regulations.
- Advice on common storage : Do not be stored together with the following product types:
- Strong oxidizing agents
 - Organic peroxides
 - Explosives
 - Gases

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Amorphous silica	7631-86-9	TWA	80 mg/m3/ (%SiO2)	OSHA PEL
		TWA	3 mg/m3	ACGIH TLV
Carbon black	1333-86-4	TWA	3.5 mg/m3	OSHA PEL
		TWA(Inhalable)	3 mg/m3	ACGIH TLV

8.2 Exposure controls

Engineering measures

- Minimize workplace exposure concentrations.
- Apply measures to prevent dust explosions.

Personal protective equipment

- Eye protection : Not required under intended use
- Hand protection : Not required under intended use
- Skin and body protection : Not required under intended use
- Respiratory protection : Not required under intended use

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : powder
- Colour : black
- Odour : odourless
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : 100 - 130 °C
- Initial boiling point and boiling range : No data available
- Flash point : Not applicable

Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Density	: ca. 1.1 g/cm ³
Bulk density	: ca. 0.35 g/cm ³
Solubility(ies) Water solubility	: negligible
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: Not applicable

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Dust can form an explosive mixture in the air.
Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute Toxicity

- Ingestion(oral) : LD₅₀ > 2000mg/kg (Rats)
Inhalation : LC₅₀ > 5.0mg/L
Eye irritation : Not an irritant (Rabbits)
Skin irritation : Not an irritant (Rabbits)
Skin sensitizer : No sensitization

Mutagenicity : Negative (Ames Test)

Carcinogenicity : In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Chronic Effect : In a study in rats of chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group, but no pulmonary change was reported in the lowest (1mg/m³) exposure group, the most relevant level to potential human exposures.

SECTION 12: Ecological information

12.1 Ecotoxicity

- Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic : EC50: > 100 mg/l
invertebrates Exposure time: 48 h
Toxicity to algae : EC50: > 100 mg/l
Exposure time: 72 h

On available data, toner is not harmful to aquatic organisms

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of it in accordance with local regulations.
Contaminated packaging : Dispose of it as an unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number : None
14.2 UN proper shipping name : None
14.3 Transport hazard class(es) : None
14.4 Packing group : None
14.5 Environmental hazards : None
14.6 Special precautions for user : Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

US Information

TSCA (Toxic Substances Control Act) :
All chemical substances in this product comply with all applicable rules or order under TSCA.

Canada Information

WHMIS Legislation : This product is not a controlled product

Australian Information

All ingredients was listed on the Australian inventory of chemical substances.

SECTION 16: Other information

Full text of other abbreviations

ACGIH	:	American Conference of Governmental Industrial Hygienists
IARC	:	International Agency for Research on Cancer
OSHA	:	Occupational Safety and Health Administration
PEL	:	Permissible Exposure Limit
TLV	:	Threshold Limit Value
TWA	:	Time Weighted Average
GHS	:	Globally Harmonized System of Classification and Labelling of Chemicals

Further information

Sources of key data used to compile the Safety Data Sheet:

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

IARC (1996): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds, Lyon, pp.149-261
H.Muhle, B.Bellman, O.Creutzenberg, C.Dasenbrock, H.Emst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein(1991) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp.280-299.

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