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

1.1 Product identifier : AR-620ND

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

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

1.3 Details of the supplier of the safety data sheet

Company / USA : SHARP Electronics Corporation

Address : Sharp Plaza, Mahwah, New Jersey 07495-1163

Telephone number : +1-800-237-4277

Company / Canada : SHARP Electronics of Canada Ltd.

Address : 335 Britannia Road East, Mississauga, Ontario L4Z 1W9

Telephone number : +1-905-890-2100

1.4 Emergency telephone number

Telephone number : +1-800-255-3924 (USA, Canada only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (Hazard Communication Standard)

Not Classified as hazardous

2.2 Label elements

Labelling (accordance with paragraph (f) of §1910.1200)

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.	Classification (REGULATION (EC) No1272/2008)	IARC	Concentration (%)
Ceramic Materials	66402-68-4	Not Classified	None	90-99
Polyester resin	Confidential	Not Classified	None	1-10
Carbon Black	1333-86-4	Not Classified	2B	0.1-1
Silicon resin	Confidential	Not Classified	None	0.1-1

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- 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 : Do not use a solid water stream as it may scatter and spread fire.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

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

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

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.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

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.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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.
Keep container tightly closed.
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.
Wash contaminated clothing before re-use. |

7.2 Conditions for safe storage, including any incompatibilities

- | | | |
|---|---|--|
| Requirements for storage areas and containers | : | Keep tightly closed. Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations. |
|---|---|--|

Advice on common storage : Do not store with the following product types:

- Strong oxidizing agents
- Organic peroxides
- Explosives
- Gases

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Carbon black	1333-86-4	TWA	3.5 mg/m ³	OSHA PEL
		TWA(Inhalable)	3 mg/m ³	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 : Not applicable

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. 6 g/cm ³
Bulk density	:	ca. 2.35 g/cm ³
Solubility(ies) Water solubility	:	negligible
Partition coefficient: noctanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

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 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 (Estimated from the constituent components)

Inhalation : No data

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

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 in accordance with local regulations.
- Contaminated packaging : Dispose of as 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.
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SECTION 15: Regulatory information

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

TSCA (Toxic Substances Control Act) :

All chemical substances in this product comply with all applicable rules or order under TSCA.

WHMIS Legislation (Canada) :

This product is not a controlled product.

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

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.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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