

ESDA®: TONER**Safety data****1. Identification of the Substance and the Company****Substance name**

Toner

Intended Use

Development of electrostatic images on polyester film

Company name

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2. Composition/Information on Ingredients

Contains no materials classified as hazardous under EC criteria.

Constituent	Chemical formula	CAS No	% (Weight)		Risk phrases
			Min	Max	
Styrene-acrylate copolymer		25767-47-9	30	60	
Tri-iron tetroxide	Fe ₃ O ₄	1317-61-9	30	60	
Additive		31714-55-3	0.5	3	
Flow additive		67762-90-7	0.5	2	
Polypropylene	C ₃ H ₆ (Monomer)	9003-07-0	1	8	

3. Hazards identification

Product is a fine powder. Treat as nuisance dust.

4. First aid measures**General**

Obtain medical attention if any discomfort occurs following exposure.

Inhalation

Immediately remove victim to fresh air. If cough or other respiratory symptoms develop, obtain medical attention.

Ingestion

Immediately rinse mouth with water and provide fresh air. If discomfort or gastro-intestinal symptoms develop, obtain medical attention.

Skin contact

Remove person from source of contamination and wash the affected area with soap and water. If irritation develops, obtain medical attention.

Eye contact

Immediately remove contact lenses. (If any). Lift eyelids and flush eyes with water or proprietary eye bath solution. Flush for at least 15 minutes. If redness, itching or other discomfort develops, obtain medical attention.

5. Fire Fighting Measures**Extinguishing media**Use extinguishing media appropriate for surrounding fire: Water; Powder; Foam; Carbon dioxide (CO₂).**Special fire fighting procedures**

Do not breathe fumes.

Special hazards in fire

Airborne dust is an explosion hazard. Fire creates copious smoke and toxic gases. Do not breathe fumes.

Special protective equipment

Self-contained breathing apparatus may be required.

6. Accidental Release Measures**Personal precautions during spill**

Avoid breathing dust or wear an approved dust respirator.

Spill cleanup procedure

Avoid work practices that generate and disperse airborne dust. Carefully scoop or sweep up spillage and place in dry containers. Cover and label the containers. Do not reuse. Dispose of in accordance with Local Authority requirements. Collect residue using a vacuum cleaner with a particle filter. Wash down spill area with water containing detergent and flush away with plenty of water. Do not re-use empty packaging containers.

7. Handling and Storage**Handling precautions**

Use mechanical ventilation in the case of handling that causes formation of dust. Wear adequate clean workwear and gloves.

Storage precautions

Store indoors, in cool, dry, ventilated storage and closed containers. Store in original container. Do not store with explosives, oxidising agents and infectious materials.

Storage criteria

Unspecified storage.

8. Exposure Controls and Personal Protection**Protective equipment****Process control measures**

Avoid work practices that generate and disperse airborne dust. Use engineering controls to reduce air contamination to permissible exposure level.

Ventilation

No specific recommendation. Forced ventilation may be required if air contamination exceeds acceptable level.

Respiratory protection

No specific recommendation. Wear protection against nuisance dust when the general level exceeds 10 mg/m³. (Filtering Face Piece Class FFP1 dust mask).

Hand protection

Wear protective gloves.

Skin protection

Wear appropriate clothing to prevent skin contact.

Eye protection

Wear dust resistant safety goggles when there is danger of eye contact.

Hygienic work routines

Do not smoke in work area. Observe hygienic work practices. Wash at the end of each work period and before eating, smoking or using the toilet.

9. Physical and Chemical Properties

Properties	Comments	Properties	Comments
Appearance	Powder	Relative density	0.6 – 1.5 (Water = 1)
Colour	Black	Decomposition temperature	> 300°C
Odour/Taste	Mild/Faint	Flash point	> 100°C
pH value	Not applicable. (Does not dissociate in water)	Flash point method	Sh CC (Setaflash closed cup)
Solubility	Insoluble in water	Lower explosion limit in air	100 g/m ³
Melting point	120°C		

10. Stability and Reactivity

Stability

No particular stability concerns.

Conditions to avoid

Avoid heat, flames and other sources of ignition.

Hazardous decomposition products

Fire creates toxic gases/vapours/fumes comprising: Carbon dioxide (CO₂); Carbon monoxide (CO); Polycyclic aromatic hydrocarbons (PAH).

Hazardous polymerisation

Will not polymerise.

11. Toxicological information

Health warnings

Dust may irritate respiratory system. Substance may cause skin/eye irritation.

Bacterial assay (Ames Test)

Negative response. (Full five strain, reverse mutation assay with duplicates).

12. Ecological Information

Environmental hazards

Not regarded as dangerous to the environment.

Water hazard classification

0

13. Disposal Information

General/cleaning

European Waste Catalogue Number (EWC) 08 03 18.

Disposal methods

Waste to be collected, sealed tightly in bags and disposed of on approved landfills. Dispose of in accordance with Local Authority requirements.

14. Transport Information

General

Not regulated.

15. Regulatory Information

Labelling

Does not require a hazard warning label in accordance with EC directives.

Risk phrases

Product is a fine powder. Treat as nuisance dust. Dust may form explosive mixture with air.

Safety phrases

Not classified.

UK Regulatory References

Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP).

UK Environmental Listings

Rivers (Prevention of Pollution) Act 1961.

Control of Pollution (Special Waste Regulations) Act 1980.

EC Directives

System of specific information relating to Dangerous Preparations 91/155.

Approved code of practice

“Classification and Labelling of Substances and Preparations Dangerous for Supply”.

Guidance notes

Occupational Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

CHIP for everyone HSG(108).

“Dust: General principles of protection” EH44 (rev) 1997 ISBN: 0-7176-1435-2.

“Gravimetric methods for sampling and gravimetric analysis of respirable and total inhalable dust”
MDHS 14/3 2000 ISBN: 0-7176-1749-1.

Other regulations

Health & Safety at Work Act 1974.

Control of Substances Hazardous to Health (COSHH) Regulations 1995.

16. Other information

General

This information is based on our present knowledge and should therefore not be construed as a guarantee of specific properties for the product or its suitability for a particular application.

Information sources

“Dangerous Properties of Industrial Materials”, Report, N Sax et al.

Note

The data contained in this Safety Data Sheet does not constitute a User's assessment of workplace risk as required by the Health & Safety at Work Act, Control of Substances Hazardous to Health (COSHH), Management of Health & Safety at Work Regulations or other Health & Safety legislation.

This Data Sheet has been supplied for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided. Please ensure that it is passed to the appropriate person(s) in your organisation capable of acting on the information.

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