

Material Safety Data Sheet (MSDS)

Issue date: Aug. 3, 2011

MSDS#: 11QA0017

Revised date: Feb. 15, 2013

rev. 4

1. Product and Company identification

Product name : Black ink ribbon D
Ink ribbon for LC-2RBP9/LC-3RBP9/LC-4RBP9/
LC-5RBP9/LC-6RBP9/LC-7RBP9/LC-6YBP9/
LC-7YBP9/LC-4SBM9/LC-4KBM9/LC-2WBN9/
LC-3WBN9/LC-4WBN9/LC-5WBN9/LC-6WBN9/
LC-7WBN9/LC-2TBN9/LC-3TBN9/LC-4TBN9/
LC-5TBN9/LC-6TBN9/LC-7TBN9/LC-3YBW9/
LC-4YBW9/LC-5YBW9/LC-3TBW9/LC-4TBW9/
LC-5TBW9/LC-3WBW9/LC-4WBW9/LC-5WBW9/
LC-6WBC9/LC-7WBC9/LC-4SBE9/LC-5SBE9/
LC-6SBE9/LC-5ZBU1/LC-5SBR1

Company : SEIKO EPSON CORP.
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2. Hazards Identification

GHS Classification

This product is not classed as hazardous to health by directive 1999/45/EC

GHS Label Elements Including Precautionary Statements

Not applicable

Other Hazards

No data is available regarding the product itself.

3. Composition/Information on Ingredients

Substance/Mixture : Mixture

General product description : Ink ribbon

| Composition | CAS No. | EEC No. | EU registration No. | % By Weight | EU Symbols | EU R-phrase | EU OELs | Remark |
|---------------------------------------|--------------|--------------|------------------------------|--------------|------------|-------------|---------|--------|
| Carbon black | 1333-86-4 | 215-609-9 | Not available for the moment | Trade secret | None | None | None | None |
| Ethylene copolymerized resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Polyolefin resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Polyester Resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Silicon copolymerized resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Polyethylene terephthalate (PET) film | 25038-59-9 | None | Not available for the moment | Trade secret | None | None | None | None |

U.N. classification and number : Not applicable

4. First Aid Measures

Eye contact :Rinse thoroughly with running water immediately.
Then consult an eye specialist.

Skin contact :Wash off with water and soap.

Inhalation :Blow nose and gargle.

Ingestion :Rinse mouth thoroughly with water.
Then consult a physician.

5. Fire-Fighting Measures

Extinguishing method :Use a large volume of water, extinguishing agent.

Extinguishing media :A large volume of water, extinguish agent (powder, bubble), carbon dioxide.

6. Accidental Release Measures

Collect and recover.

7. Handling and Storage Precautions

Handling :Use in normal temperature, normal humidity and non-condensing.

Storage :Keep away from high temperature, high humidity, fire, water leakage, direct sunlight and condensing, store in indoor warehouse in normal temperature and normal humidity.

8. Exposure Controls/ Personal Protection

Control parameters

Exposure limit values :

Substance : Carbon black CAS № : 1333-86-4

| Country | Limit value-Eight hours | | Limit value-Short term | |
|----------------|-------------------------|-------|------------------------|-------|
| | ppm | mg/m3 | ppm | mg/m3 |
| United Kingdom | | 3.5 | | 7 |
| France | | 3.5 | | |
| Germany | | | | |
| USA-OSHA | | 3.5 | | 7 |

Exposure controls

Appropriate engineering controls: Not applicable

Individual protection measures, such as personal protective equipment:

Use personal protection equipment as per Directive 89/686/EEC.

Eye/face protection : Not applicable in normal conditions of use.

Skin protection

Hand protection : Wear protective gloves when required.

Other skin protection : Wear suitable protective clothing when required.

Respiratory protection : Not applicable in normal conditions of use.

For further information, see section 11 of S.D.S. - Toxicological information.

Environmental exposure controls: Not applicable in normal conditions of use.

9. Physical and Chemical Properties

Physical appearance, color, etc. :PET film coated black ink in one side wrapped around center core.

Specific gravity :0.95

Boiling point : <200 degree C

Melting point :250 to 265 degree C (Melting partly at about 135 degree C)

Fusibility :Water: Insoluble

10. Stability and Reactivity

Flash point :>200 degree C

Ignition quality :No (at normal temperature)

Oxidation nature :No

Self-reactive, Explosiveness :No

Dust explosiveness :No

Stability , Reactivity : Stable at normal temperature

11. Toxicological information

Skin Corrosion :No

Irritation(Eyes, Skin) :No

Acute toxicity(Including LD50) :No data.

Carcinogenicity :Carbon black IARC group 2B
(Influence on a human body is not confirmed.)

12. Ecological information

| | |
|--------------------------|---------|
| Degradability: | No data |
| Accumulative properties: | No data |
| Fish toxicity: | No data |

13. Disposal Considerations

Product should be disposed in accordance with the regulations issued by the appropriate federal, provincial, state and local authorities.

14. Transport Precautions

Transport careful enough to prevent falling over, drop and cargo collapse.
Avoid high temperature, high humidity and condensing in transportation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :
Not applicable

15. Applicable regulations

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

EU regulations

Authorisations and/or restrictions on use : Not applicable

Other EU regulations : No data is available

Chemical Safety Assessment :

No Chemical Safety Assessment has been carried out for this mixture.

16. Disclaimer

The above mentioned data correspond to our present state of knowledge and experience, but no warranty is made. It could be revised by new perception.

Users should consider these data only as a supplement to other information and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of the materials and safety and health of employees and customers.

<Revision history>

Rev.2 Compliant with GHS.

Rev.3 Revise of applicable regulations

Rev.4 Revise composition table

Material Safety Data Sheet (MSDS)

Issue date: Aug. 3, 2011

MSDS#: 11QA004

Revised date: Feb. 15, 2013

rev.4

17. Product and Company identification

Product name : Standard PET receptor tape
Receptor tape for LC-2RBP9/LC-3RBP9/LC-4RBP9/
LC-5RBP9/LC-6RBP9/LC-7RBP9/LC-2YBP9
LC-3YBP9/LC-4YBP9/LC-5YBP9/LC-6YBP9
LC-7YBP9/LC-4BWV9/LC-4YBF9/LC-5YBF9/
LC-4GBF9/LC-5GBF9/LC-2WBN9/LC-3WBN9
LC-4WBN9/LC-5WBN9/LC-6WBN9/LC-7WBN9/
LC-3WRN9/LC-4WRN9/LC-5WRN9/LC-4WLN9/
LC-2TBN9/LC-3TBN9/LC-4TBN9/LC-5TBN9/
LC-6TBN9/LC-7TBN9/LC-4TWN9/LC-5TWN9/
LC-3YBW9/LC-4YBW9/LC-5YBW9/LC-3TBW9/
LC-4TBW9/LC-5TBW9/LC-3WBW9/LC-4WBW9/
LC-5WBW9/LC-6WBC9/LC-7WBC9/LC-5BWV9

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18. Hazards Identification

GHS Classification
This product is not classed as hazardous to health by directive 1999/45/EC

GHS Label Elements Including Precautionary Statements : Not applicable

Hazard Statement :None
Toxicological information :None
Ecological Information :None

19. Composition/Information on Ingredients

Substance/Mixture :Mixture

| Composition | Material name | | | CAS No. | EEC No. | EU registration No. | % By Weight | EU Symbols | EU R-phrase | EU OELs | Remark |
|---------------|---------------------------------------|---------------------------|-------------------------|--------------|--------------|------------------------------|--------------|------------|-------------|---------|--------|
| | Transparent/ Colored | Transparent | Colored | | | | | | | | |
| Coating layer | Polyester series resin | | | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Base material | Polyethylene terephthalate (PET) film | | | 25038-59-9 | None | Not available for the moment | Trade secret | None | None | None | None |
| Primer layer | | Polyurethane series resin | | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Color layer | | | Polyurethane series ink | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Adhesive | Acrylic adhesive agent | | | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Liner paper | Siliconized polyethylene film | | | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Core | Alkyl benzene sulfonate (ABS) | | | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |

20. First Aid Measures

| | |
|--------------|---|
| Eye contact | :Rinse thoroughly with clean water. If there is foreign material in eyes or wound or pain consult an eye specialist. |
| Skin contact | :If irritation or other aberrance happens, consult a physician. |
| Ingestion | : Induce vomiting if possible. If aberrance happens, consult a physician. |

21. Fire-Fighting Measures

| | |
|----------------------|--|
| Extinguishing method | :Use same method as normal fire. |
| Extinguishing media | :A large volume of water, extinguish agent (powder, bubble), carbon dioxide. |

22. Accidental Release Measures

Not necessary.

23. Handling and Storage Precautions

| | |
|----------|---|
| Handling | : This tape is for printing. Do not use for electrical insulation. Wipe off oil or water on the surface where this tape is stuck before sticking. |
| Storage | :Keep away from direct sunlight and store in cool place. |

24. Exposure Controls/ Personal Protection

| | |
|---------------------------------|-------------------|
| Control limit | : Not applicable. |
| Occupational exposure limits | : Not applicable. |
| Facility and equipment measures | : Not required. |
| Protective equipment: | |
| - Respiratory equipment: | Not required. |
| - Safety goggles: | Not required. |
| - Protective gloves: | Not required. |
| - Protective suit: | Not required. |

25. Physical and Chemical Properties

| | |
|----------------------------------|--|
| Physical appearance, color, etc. | : Colored roll adhesive tape with paper liner, wrapped around center core. |
| | - As white colored tape - |
| Specific gravity | :No data (1.4 as polyethylene terephthalate) |
| Melting point | :No data (255 degree C as polyethylene terephthalate) |
| Flash point | :290 degree C |
| Ignition temperature | :442 degree C |
| Fusibility | :Water: Insoluble |

26. Stability and Reactivity

| | |
|----------------|--|
| Combustibility | :Yes (It will burn, if there is a source of ignition.) |
| Inflammability | :No |
| Explosiveness | :No |
| Reactivity | :No |
| Stability | :Stable |

27. Toxicological information

| | |
|-------------------|----------|
| Irritating nature | :No |
| Sensitization | :No data |
| Mutagenicity | :No data |
| Acute toxicity | :No data |

28. Ecological information

| | |
|--------------------------------------|--|
| Ozone depleting substance | :Not used |
| Specific brominated flame retardants | :Not used |
| Hormone disrupting chemicals | :Not used |
| Harmful heavy metal | : White ink pigment (in Oxidized titanium) Cadmium, Hexavalent chromium, mercury (Less than detection limit.) lead (Equal or less than 30ppm) Others are not used. |
| Chlorinated compounds | :Infinitesimal quantity as bleaching agent in papermaking process. |
| Degradability | :No data |
| Accumulative properties | :No data |
| Fish toxicity | :No data |

Disposal prohibition :Do not dispose on the ocean, waterside and outdoors to prevent a marine organism and birds from taking it in.

29. Disposal Considerations

Disposal :Nothing
Incineration :Nothing (Incinerate 800 degree C or above.)

30. Transport Precautions

Nothing. Transport as general transported material.
Transport careful enough to prevent falling over, drop and cargo collapse.
UN classification/UN number : Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :
Not applicable

31. Applicable regulations

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

EU Information

Regulation (EC) No 2037/2000: Is not subject

Regulation (EC) No 850/2004: Is not subject

Regulation (EC) No 689/2008: Is not subject

Chemical Safety Assessment :

No Chemical Safety Assessment has been carried out for this mixture.

32. Disclaimer

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