Safety Data Sheet (SDS)

Issue date: Dec. 17, 2015

Revised date: Jan. 28, 2016

MSDS#:15QA068

rev. 2

| 1. Identification of the substance/n | nixture and of the company/undertaking |
|--------------------------------------|--|
| Product identifier | : Metallic receptor tape (Silver, Gold) |
| | Receptor tape for LK-4SBM/LK-4KBM |
| Details of the supplier of the | e safety data sheet |
| Distributor | : EPSON EUROPE B.V. |
| Address | : Azie building, Atlas ArenA, Hoogoorddreef |
| | 5,1101 BA Amsterdam Zuidoost The Netherlands |
| | www.epson-europe.com |
| Telephone No. | : +31-20-314-5000 |
| Fax. No. | : +31-20-314-5100 |
| E-mail address | : <u>chemicals@epson-europe.com</u> |
| Emergency telephone numb | ber : Giftnotruf Berlin +49 (0) 30 30686790 |

2. Hazards Identification

GHS Classification

| This product is not classed | as hazardous to health by di | rective 1999/45/EC |
|------------------------------------|------------------------------|--------------------|
| GHS Label Elements Including Preca | autionary Statements | : Not applicable |
| Hazard Statement | :None | |
| Toxicological information | :None | |
| Ecological Information | :None | |

3. Composition/Information on Ingredients

| | Substanc | e/Mixture | :Mi> | ture | | | | | | |
|------------------|----------------------------|--------------------------------------|-----------------|-----------------|------------------------------------|-----------------|---------------|----------------|------------|--------|
| Composition | Materia Silver | al name Gold | CAS No. | EEC No. | EU registration No. | % By Weight | EU Symbols | EU R-phrase | EU OELs | Remark |
| Coating layer | Polyester s | series resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Base material | | terephthalate ⁻) film | 25038-59-9 | None | Not available for the moment | Trade secret | None | None | None | None |
| Color layer | | Acrylic series ink | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Evaporated layer | Alum | ninum | 7429-90-5 | 231-072-3 | Not available for the moment | Trade secret | None | None | None | None |
| Primer layer | Polyurethane | e series resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Adhesive | Acrylic adh | esive agent | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Liner paper | Siliconized po | lyethylene film | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Core | Acrylonitrile - styrene | - butadiene - e(ABS) | 9003-56-9 | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| | UN class | ification/UN | Inumber | : Not | applicable | | | | | |

| 4. | First Aid Measures | |
|----|---|--|
| | Eye contact | Rinse thoroughly with clean water. If there is foreign material in eyes or wound or pain consult |
| | Skin contact | an eye specialist. :If irritation or other aberrance happens, consult a physician. |
| | Ingestion | : Induce vomiting if possible. If aberrance happens, consult a physician. |
| 5. | Fire-Fighting Measures | |
| | Extinguishing method Extinguishing media | :Use same method as normal fire. :A large volume of water, extinguish agent (powder, bubble), carbon dioxide. |
| 6. | Accidental Release Measure | S |
| | Not necessary. | |
| 7. | Handling and Storage Preca | utions |
| | | |
| | Handling | : This tape is for printing. |
| | Handling | |
| | Ū. | : 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. |
| | Handling Storage | : This tape is for printing. Do not use for electrical insulation. Wipe off oil or water on the surface where this tape is stuck |
| 8. | Storage | 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. :Keep away from direct sunlight and store in cool place. |
| 8. | Storage Exposure Controls/ Persona Control limit | : 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. :Keep away from direct sunlight and store in cool place. |
| 8. | Storage Exposure Controls/ Persona Control limit Occupational exposure | : 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. :Keep away from direct sunlight and store in cool place. |
| 8. | Storage Exposure Controls/ Persona Control limit | : 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. :Keep away from direct sunlight and store in cool place. |
| 8. | Storage Exposure Controls/ Persona Control limit Occupational exposure Facility and equipment | : 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. :Keep away from direct sunlight and store in cool place. Protection :Not applicable. e limits : Not applicable. measures : Not required. |
| 8. | Storage Exposure Controls/ Persona Control limit Occupational exposure Facility and equipment Protective equipment: | : 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. :Keep away from direct sunlight and store in cool place. Protection :Not applicable. e limits : Not applicable. measures : Not required. |
| 8. | Storage Exposure Controls/ Persona Control limit Occupational exposure Facility and equipment Protective equipment: - Respiratory e | : 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. :Keep away from direct sunlight and store in cool place. Protection :Not applicable. e limits : Not applicable. measures : Not required. equipment: Not required. es: Not required. |

9. Physical and Chemical Properties

| Physical appearance, o | color, etc. : Roll adhesive tape with paper liner, wrapped |
|------------------------------------|--|
| | around center core. |
| Specific gravity | :No data (1.4 as polyethylene terephthalate) |
| Melting point | :No data (255 degree C as polyethylene terephthalate) |
| Flash point | :No data |
| Ignition temperature :508 degree C | |
| Fusibility | :Water: Insoluble |

10. Stability and Reactivity

11. Toxicological information

| 0 | | |
|------------|--------|----------|
| Irritating | nature | :No |
| Sensitiza | ation | :No data |
| Mutager | nicity | :No data |
| Acute to | xicity | :No data |
| | - | |

12. Ecological information

| Ozone depleting substance Specific brominated flame retarda | :Not used ints :Not used |
|--|--|
| Hormone disrupting chemicals | :Not used |
| Harmful heavy metal | :Cadmium, Hexavalent chromium, mercury (Less than detection limit.) lead (Equal or less than 30ppm) |
| Chlorinated compounds | :Not used |
| 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. |

13. Disposal Considerations

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

14. Transport Precautions

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

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15. 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 | s 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 Revise of the supplier of the safety data sheet

Safety Data Sheet (SDS)

Issue date: Dec. 3, 2015

Revised date: Jan. 28, 2016

MSDS#:15QA064

rev. 2

| 17. Identification of the substance/ | mixture and of the company/undertaking |
|--------------------------------------|--|
| Product identifier | : Black ink ribbon D |
| | Ink ribbon for LK-1WBN/LK-1YBP/LK-1TBN/LK-2RBP/ |
| | LK-2WBN/LK-3RBP/LK-3YBW/LK-3TBW/LK-3WBW/ |
| | LK-4KBK/LK-4RBP/LK-4YBW/LK-4TBW/LK-4WBW/ |
| | LK-4SBE/LK-4SBM/LK-4KBM/LK-4WBN/LK-4ZBKA/ |
| | LK-5WB2/LK-5RBP/LK-5YBW/LK-5TBW/LK-5WBW/ |
| | LK-5SBE/LK-5ZBU/LK-5SBR/LK-5YB2/LK-5RB2/LK-5LB2/ |
| | LK-5GB2/LK-6WB2/LK-6RBP/LK-6YBP/LK-6WBN/ |
| | LK-6TBN/LK-6SBE/LK-6YB2/LK-6RB2/LK-6LB2/LK-6GB2/ |
| | LK-7WB2/LK-7RBP/LK-7YBP/LK-7WBN/LK-7TBN/LK-7YB2/ |
| | LK-6WBC/LK-7WBC |
| Details of the supplier of th | e safety data sheet |
| Distributor | : EPSON EUROPE B.V. |
| Address | : Azie building, Atlas ArenA, Hoogoorddreef |
| | 5,1101 BA Amsterdam Zuidoost The Netherlands www.epson-europe.com |
| Telephone No. | |
| Fax. No. | |
| E-mail address | : <u>chemicals@epson-europe.com</u> |
| Emergency telephone num | ber : Giftnotruf Berlin +49 (0) 30 30686790 |
| | |

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

Other Hazards

No data is available regarding the product itself.

19. Composition/Information on Ingredients

Substance/Mixture :Mixture

General product description : Ink ribbon

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

U.N. classification and number : Not applicable

20. First Aid Measures

| Rinse thoroughly with running water immediately. Then consult an eye specialist. | | | | | |
|---|--|--|--|--|--|
| :Wash off with water and soap. :Blow nose and gargle. | | | | | |
| | | | | | |
| Then consult a physician. | | | | | |
| | | | | | |
| :Use a large volume of water, extinguishing agent. | | | | | |
| :A large volume of water, extinguish agent (powder, bubble), carbon dioxide. | | | | | |
| | | | | | |
| | | | | | |
| ons | | | | | |
| :Use in normal temperature, normal humidity and non-condensing. | | | | | |
| :Keep away from high temperature, high humidity, fire, wate leakage, direct sunlight and condensing, store in indoor warehouse in normal temperature and normal humidity. | | | | | |
| | | | | | |

24. Exposure Controls/ Personal Protection

Control parameters

Exposure limit values :

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

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

Exposure controls

| | 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 Skin protection | | |
| | | | | | | | |
| | Hand protecti | ion : Wear protective gloves when required. | | | | | |
| | Other skin pro | | | | | | |
| | Respiratory pro | | | | | | |
| | | | | | | | |
| | For ful inform | rther information, see section 11 of S.D.S Toxicological ation. | | | | | |
| | Environmental e | exposure controls: Not applicable in normal conditions of use. | | | | | |
| 25. Ph | ysical and Chemical Prope | erties | | | | | |
| Physical appearance, color, etc. | | | | | | | |
| | | 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) | | | | | |
| | moning point | | | | | | |
| | Fusibility | :Water: Insoluble | | | | | |
| | • | | | | | | |
| 26. Sta | Fusibility | | | | | | |
| 26. Sta | Fusibility ability and Reactivity | :Water: Insoluble | | | | | |
| 26. Sta | Fusibility ability and Reactivity Flash point | :Water: Insoluble :>200 degree C | | | | | |
| 26. Sta | Fusibility ability and Reactivity Flash point Ignition quality | :Water: Insoluble :>200 degree C :No (at normal temperature) :No | | | | | |
| 26. Sta | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature | :Water: Insoluble :>200 degree C :No (at normal temperature) :No | | | | | |
| 26. Sta | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver | :Water: Insoluble :>200 degree C :No (at normal temperature) :No ness :No | | | | | |
| | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver Dust explosiveness | :Water: Insoluble :>200 degree C :No (at normal temperature) :No ness :No :No | | | | | |
| | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver Dust explosiveness Stability , Reactivity | :Water: Insoluble :>200 degree C :No (at normal temperature) :No ness :No :No | | | | | |
| | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver Dust explosiveness Stability , Reactivity | :Water: Insoluble :>200 degree C :No (at normal temperature) :No :No :No : Stable at normal temperature | | | | | |
| | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver Dust explosiveness Stability , Reactivity xicological information Skin Corrosion | :Water: Insoluble :>200 degree C :No (at normal temperature) :No ness :No :No : Stable at normal temperature :No :No | | | | | |
| | Fusibility ability and Reactivity Flash point Ignition quality Oxidation nature Self-reactive, Explosiver Dust explosiveness Stability , Reactivity xicological information Skin Corrosion Irritation(Eyes, Skin) | :Water: Insoluble :>200 degree C :No (at normal temperature) :No ness :No :No : Stable at normal temperature :No :No | | | | | |

| 28. | Ecological | information |
|-----|------------|-------------|
|-----|------------|-------------|

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

29. Disposal Considerations

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

30. 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

31. 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.

32. 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.

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