

Safety Data Sheet (SDS)

Issue date: Dec. 3, 2015

MSDS#: 15QA060

Revised date: Jan. 28, 2016

rev. 2

1. Identification of the substance/mixture and of the company/undertaking

Product identifier : Heat shrink tube receptor tape (SUMITUBE)
Receptor tape for LK-4WBA5/LK-4YBA5/LK-6WBA11/
LK-6WBA14/LK-6YBA11/LK-6YBA14/LK-7WBA21/
LK-7YBA21

Details of the supplier of the safety data sheet

Distributor : EPSON EUROPE B.V.
Address : Azie building, Atlas ArenA, Hoogoorddreef
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www.epson-europe.com

Telephone No. : +31-20-314-5000

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2. Hazards Identification

GHS Classification :Not applicable
GHS Label Elements Including Precautionary Statements :Not applicable
Hazard Statement :None
Toxicological information : If the product is overheated or burned, harmful vapors may be formed.
The heated product has the potential to cause thermal burns, if touched.
Ecological Information :None

3. Composition/Information on Ingredients

Substance/Mixture :Mixture
General product description :Irradiated cross-linked, flexible, flame-retardant,
heat-shrinkable, polyolefin tubing
Ingredient :Electron beam cross-linking polyolefin series compounder

4. First Aid Measures

Inhalation : If vapors from the burning or overheated product are inhaled, provide fresh air. If symptoms are not reduced, seek medical advice.
Skin contact : If the heated product contacts skin, remove the product immediately. If there is evidence of reddening or burn, seek medical advice.
Eye contact : If the heated product contacts eyes, rinse thoroughly with plenty of water for at least 15 minutes and seek medical advice.
Ingestion :Seek medical advice.

5. Fire-Fighting Measures

| | |
|---|---|
| Extinguishing media | : A large volume of water, extinguish agent (powder, bubble), carbon dioxide. |
| Unsuitable extinguishing media | : No information |
| Special hazards arising from the substance or mixture | : No information |
| Advice for firefighters | : The self-contained breathing apparatus and the personal protective equipment may be needed in the event of large fires. |

6. Accidental Release Measures

| | |
|--------------------------|---|
| Personal precautions | : Avoid contact with the heated product. Gloves may be required to handle the product, when hot. If overheated, avoid breathing fumes which may be emitted. |
| Environmental precaution | : In common with all good industrial practice, install in well ventilated areas only. |
| Methods for cleaning up | : Sweep up and dump in a disposal container. |

7. Handling and Storage Precautions

| | |
|----------|---|
| Handling | : No special handling advice required. |
| Storage | : Store at room temperature in unopened packs to avoid direct sunlight. |

8. 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 under normal operation. |
| - Safety goggles: | Not required under normal operation. |
| - Protective gloves: | Gloves may be required to handle the product, when hot. |
| - Protective suit: | Not required under normal operation. |

9. Physical and Chemical Properties

| | |
|----------------------|--|
| Physical appearance | : Solid(Tubing) |
| Color | : Yellow and White |
| Odor | : Slight characteristic plastic odor |
| Melting point | : The material has melting point, 90 ° C nominal, but it will not flow over the melting temperature due to the cross-linked structure. |
| Boiling point | : Not applicable. |
| Flash point | : Unknown |
| Ignition temperature | : Unknown |
| Explosive properties | : Not applicable |
| Vapor pressure | : Not applicable |
| Specific gravity | : 1.35 nominal |
| Fusibility | : Small molecular solubility in water |

10. Stability and Reactivity

| | |
|----------------------------------|--|
| Stability | : Stable at normal conditions. Recommended max. operating temperature is 125 ° C. Do not heat over 300 ° C to avoid harmful vapors which may be formed at high temperatures. |
| Material to avoid | : None |
| Hazardous decomposition products | : None under normal conditions. If the product is overheated or burned, harmful vapors(e.g. carbon monoxide and hydrogen halides) may be generated. |

11. Toxicological information

| | |
|---------------------|---|
| Acute toxicity | : No data |
| Skin | : Not irritating, but the heated product has potential to cause thermal burn. |
| Eyes | : If the product is overheated or burned, vapors may irritate eyes. |
| Inhalation | : Harmful vapors produced by overheating or burning may cause irritation to the upper respiratory tract. |
| Ingestion | : Not digestible. |
| Chronic toxicity | : No data |
| Carcinogenicity | : No data |
| Mutagenicity | : No data |
| Further information | : During heating process of the product, slight plastic smell may cause discomfort for susceptible persons. |

12. Ecological information

| | |
|----------------------------|-----------|
| Biodegradability | : No data |
| Fish toxicity | : No data |
| Bioaccumulative properties | : No data |
| Further information | : No data |

13. Disposal Considerations

| | |
|------------------------|---|
| Product | : Incinerate or bury in accordance with local and national regulations. Contact proper local authorities. |
| Contaminated packaging | : Cardboard boxes and reels can be delivered to local recycling facilities. |

14. Transport Precautions

Not classified as dangerous with regard to the transport regulation.

15. Applicable regulations

Poisonous and Deleterious Substances Control Law : N/A

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. 03, 20015

MSDS#: 15QA065

Revised date: Jan. 28, 2016

rev. 2

17. Identification of the substance/mixture and of the company/undertaking

Product identifier : Black ink ribbon F for HST
Ink ribbon for LK-4WBA3/LK-4WBA5/LK-4YBA3/LK-4YBA5/
LK-6WBA11/LK-6WBA14/LK-6YBA11/LK-6YBA14/
LK-7WBA21/LK-7YBA21

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18. Hazards Identification

2.1. Classification of the substance or mixture

| | | |
|-----------------|---|-----------------------------|
| Physical hazard | :Explosives | Classification not possible |
| | Flammable gases | Not Applicable |
| | Flammable aerosols | Not Applicable |
| | Oxidizing gases | Not Applicable |
| | Gases under pressure | Not Applicable |
| | Flammable liquids | Not Applicable |
| | Flammable solids | Classification not possible |
| | Self-reactive substances and mixtures | Classification not possible |
| | Pyrophoric liquids | Not Applicable |
| | Pyrophoric solids | Not Classified |
| | Self-heating substances and mixtures | Classification not possible |
| | Substances and mixtures which, in contact with water, emit flammable gases | Not Classified |
| | Oxidizing liquids | Not Applicable |
| | Oxidizing solids | Classification not possible |
| | Organic peroxides | Classification not possible |
| | Corrosive to metals | Classification not possible |
| Health hazard | :Acute toxicity(Oral) | Classification not possible |
| | Acute toxicity(Dermal) | Classification not possible |
| | Acute toxicity(Gases) | Not Applicable |
| | Acute toxicity(Vapors) | Classification not possible |
| | Acute toxicity(Dusts) | Classification not possible |
| | Acute toxicity(Mists) | Classification not possible |
| | Skin corrosion/irritation | Classification not possible |
| | Serious eye damage/eye-irritation | Classification not possible |
| | Respiratory sensitization | Classification not possible |
| | Skin sensitization | Classification not possible |
| | Germ cell mutagenicity | Classification not possible |
| | Carcinogenicity | Class2 |
| | Reproductive toxicity | Classification not possible |

Specific target organ toxicity (single exposure) Classification not possible
 Specific target organ toxicity (repeated exposure) Class1(Lung)
 Aspiration hazard Classification not possible

Environmental hazard

:Hazardous to the aquatic environment (Acute) Classification not possible
 Hazardous to the aquatic environment (Chronic) Classification not possible

2.2. Label Elements



Signal word : Danger
 Hazard statements: Possibly carcinogenic to humans.
 Long term or repeatedly exposure may add damage to respiratory.
 Safety advise : Store in cool dark place
 Wear protective gloves if necessary.
 Avoid inhalation of dust of ink.

19. 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 | 11 | None | None | None | None |
| Wax | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Resin | Trade secret | Trade secret | Not available for the moment | Trade secret | None | None | None | None |
| Additive agent | 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 |

20. First Aid Measures

Description of first aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing in an unconscious person.

| | |
|--------------|---|
| Eye contact | : Rinse thoroughly with a large volume of water immediately. Then consult an eye specialist. |
| Skin contact | : Wash off with a large volume of water and soap. |
| Inhalation | : Not applicable |
| Ingestion | : In the event of ingestion, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. If swallowed accidentally, call a doctor to assess the need for monitoring and subsequent treatment in hospital. |

Most important symptoms and effects, both acute and delayed

No data is available regarding the product itself.

Indication of any immediate medical attention and special treatment needed

No data is available regarding the product itself.

21. Fire-Fighting Measures

| | |
|---|--|
| Extinguishing media | : Water mist, Foam, Dry powder, CO2 gas, other |
| Unsuitable extinguishing media | : Not applicable |
| Special hazards arising from the substance or mixture | : No information |
| Advice for firefighters | : No special measures required. |

22. Accidental Release Measures

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Consult the safety measures listed under headings 7 and 8. |
| Environmental precautions | : Do not pour into drains or waterways. |
| Methods and materials for containment and cleaning up | : If inadvertently released, rewind ribbon. |
| Reference to other sections | : Section 8,13 |

23. Handling and Storage Precautions

The regulations relating to storage premises apply to workshops where the product is handled.

Precautions for safe handling: No special. For personal safety, see section 8.

Conditions for safe storage, including any incompatibilities:

Should be stored in dark and cool place.

Specific end use(s) : Thermal transfer ribbon

24. Exposure Controls/ Personal Protection

Control parameters :Not applicable as product

Exposure limit values : As carbon black

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.

25. Physical and Chemical Properties

Physical appearance, color, etc. : Polyethylene terephthalate film coated on one side thereof with black ink wrapped around center core.

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : >150°C

Upper/lower flammability or explosive limits: No data available

Vapor pressure : No data available

Vapor density : No data available

Specific gravity : No data available

Solubility(ies) : Negligible(water)

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Evaporation rate : Not applicable
Flammability (solid, gas) : This product is not classed as flammable.
Viscosity : No data available

26. Stability and Reactivity

Reactivity :The product is stable at the handling and storage conditions recommended per section 7 of the safety data sheet,
Chemical stability :The product is stable at the handling and storage conditions recommended per section 7 of the safety data sheet,
Possibility of hazardous reactions: No hazardous reaction when handled and stored according to provisions.
Conditions to avoid :High temperature, High humidity, direct sunlight
Incompatible materials: None
Hazardous decomposition products: No dangerous decomposition products occur under normal storage and use conditions.

27. Toxicological information

Acute toxicity : No data is available regarding the product itself.
Skin corrosion/irritation : No data is available regarding the product itself.
Serious eye damage/irritation : No data is available regarding the product itself.
Sensitization : No data is available regarding the product itself.
Germ cell mutagenicity : No data is available regarding the product itself.
Carcinogenicity : Class2(Carbon black is categorized as class2 and content amount of that is more than 10%)
Specific target organ toxicity (single exposure) : No data is available regarding the product itself.
Specific target organ toxicity (repeated exposure) : Class1(Carbon black is categorized as class1 and content amount of that is more than 10%)
Aspiration hazard : No data is available regarding the product itself.

28. Ecological information

Toxicity : No data is available
Persistence and degradability: No data is available
Bioaccumulative potential : No data is available
Mobility in soil : No data is available
Results of PBT and vPvB assessment : No data is available
Other adverse effects : No data is available

29. Disposal Considerations

Waste treatment methods :

Do not pour into drains or waterways.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not dispose of waste into the environment.

30. Transport Precautions

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : No special

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

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