

**1. Identification**

Product Name	: Rosin based paste BS-850			
Manufacturer	: TAIYO ELECTRIC IND. CO., LTD.	Section:	: Engineering Department	
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**2. Hazard Identification**

<GHS Classification>	
Flammable liquid	: Not classified
Acute toxicity (Oral)	: Not classified
Acute toxicity (Dermal)	: Not classified
Acute toxicity (Inhalation: gas)	: Not applicable
Acute toxicity (Inhalation: vapor)	: Not classified
Acute toxicity (Inhalation: dust/mist)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/eye irritation	: Class 2
Respiratory sensitization	: Classification not possible
Skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Not classified
Specific target organ toxicity (Single exposure)	: Class 3 (Respiratory tract irritation, narcotic effect)
Specific target organ toxicity (Repeated exposure)	: Not classified
Environmental hazards	
Hazardous to the aquatic environment, Acute toxicity:	: Not classified
Hazardous to the aquatic environment, Chronic toxicity:	: Not classified
Hazardous to the ozone layer:	: Classification not possible
<GHS Symbols>	
	
< Signal Words>	
•Warning	
<Hazard statement>	
•Causes serious eye irritation.	
•May cause respiratory irritation; or May cause drowsiness or dizziness.	
•(Respiratory tract irritation) May cause respiratory irritation.	
•(Narcotic effects) May cause drowsiness or dizziness.	
<Precautionary statement>	
【Prevention】	
•Use only outdoors or in a well-ventilated area.	
•Do not breathe dust/gas/mist/vapors/spray.	
•Wear protective gloves/eye protection/face protection.	

•Wash hands thoroughly after handling.

**【Response】**

•IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell.

•IF INHALED : Remove person to fresh air and keep comfortable for breathing.

**【Storage】**

•Protect from direct sunlight. Keep container tightly closed. Store in a well-ventilated place. Store locked up.

**【Disposal】**

•Commit disposal to industrial waste disposal contractor approved by government.

### 3. Composition/Information on Ingredients

Substance or Mixture : Mixture

Chemical Name : Paste

Components	Percentage (wt%)	Chemical/Structural formula	Chemical Substances Control Law No.	CAS No.
Rosin	40 - 50%	Confidential	Confidential	Confidential
2-Methyl-2,4-pentanediol	40 - 50%	HeG	2-240	107-41-5
Thixotropic agent	1 - 10%	Confidential	Confidential	Confidential
Organic acid	Less than 1%	Confidential	Confidential	Confidential
Activator	1 - 3%	Confidential	Confidential	Confidential

### 4. First-aid Measures

IF INHALED : Remove person to fresh air. Keep comfortable for breathing. Get medical advice/attention.

IF ON SKIN : Immediately take off all contaminated clothing. Rinse skin well with plenty of lukewarm water and soap. Get medical advice/attention if needed.

IF IN EYES : Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

Expected immediate and delayed symptoms : No information available.

Most important symptoms/effects: : No information available.

Personal protective equipment for first-aid responders : No information available.

### 5. Fire-fighting Measures

Extinguishing media : Dry chemical, air foam, carbon dioxide, sand

Unsuitable extinguishing media : Water spray may be used to cool down, but a straight stream of water should not be used to extinguish.

Specific hazards : Black smoke, carbon monoxide, and other toxic gases are generated by pyrolysis and incomplete combustion: there is a possibility of danger of inhalation.

Specific firefighting measures: : Sprinkle water on surrounding facility to cool it down. Fight fire from upwind if possible.

Protective equipment for fire-fighters : Wear appropriate protective equipment (gloves, glasses, mask, respirator).

**6. Accidental Release Measures**

Personal precautions, protective equipment and emergency procedures	: Do not touch leak or walk onto leak. : Ventilate well until the disposals completed. : Wear appropriate protection (refer to 8. Exposure Controls/Personal Protection) to avoid contact to eyes/skin or inhalation of gas.
Environmental precautions	: Avoid release to river etc. to avoid effects to environment. : Do not release to the environment.
Methods and materials for containment and cleaning up	: In case of small amount, absorb with dry soil, sand, non-flammable materials, or rags, and collect into closed container. Dispose later. : In case of large amount, stop leak with earthen barrier, divert to safe area, and collect. : In case of large amount, water sprinkling will lower the vapor density. In closed area, sprinkling may not reduce fire.
Prevention of secondary hazards	: Avoid leaking into drain, sewer, underground room or closed place. : Remove immediately all ignition sources. (No smoking/spark/flame in surrounding area.)

**7. Handling and Storage**

<b>【Handling】</b>	
Appropriate engineering controls	: Use local exhaust ventilation when handling in a closed area. Wear appropriate protective equipment.
Local exhaust/total ventilation	: Local exhaust ventilation is preferable.
Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. : Keep away from hot surfaces, sparks, open flames. : Do not handle container roughly, e.g. by tipping, dropping, damaging, dragging. : Do not breathe mist/vapor/spray. : Wash hands and gargle after use. : Do not get in eyes, on skin. Do not contact, inhale, swallow. : Do not eat, drink or smoke when using this product. : Use only outdoors or in a well-ventilated area.
<b>【Storage】</b>	
Appropriate Engineering controls	: Nothing in particular
Conditions for storage	: Store away from heat, sparks, open flames and other ignition sources. No smoking. : Store in a well-ventilated and cool place. Protect container from direct sunlight or fire.
Incompatible materials	: Strong oxidizer, strong alkaline
container material	: Sealable plastic container.

**8. Exposure Controls/Personal Protection**

Facility measures	: When vapor or fume/mist is produced, seal the generation source and ensure local exhaust ventilation. : Install equipment to wash the eyes and body nearby.
Administrative level	: Not set (2-Methyl-2,4-pentanediol)
Occupational Exposure Limits	: ACGIH TLV(s) TWA 25ppm (2-Methyl-2,4-pentanediol) : Japan Society for Occupational Health: Not set (2-Methyl-2,4-pentanediol)
<b>【Protective equipment】</b>	
Respiratory	: Appropriate protective mask
Hands	: Wear protective gloves.
Eyes	: Wear eye protection (goggles).
Skin and body	: Wear long-sleeved work clothes, impermeable apron etc.

Hygiene measure:	: Wash hands thoroughly after handling.
	: Do not eat, drink or smoke when using this product.

### 9. Physical and Chemical Properties

Physical state, shape, color	: Brown paste
Odor	: Ether odor
PH	: No data available
Melting point/Freezing point	: Melting point (2-Methyl-2,4-pentanediol) -50°C
Boiling point or initial boiling point and boiling range	: Boiling point (2-Methyl-2,4-pentanediol) 198°C
Flash point	: 2-Methyl-2,4-pentanediol 102°C : Product >96°C
Auto-ignition temp.	: 2-Methyl-2,4-pentanediol 579°C
Explosivity limit (Lower)	: 2-Methyl-2,4-pentanediol 1.3vol%
Explosivity limit (Upper)	: 2-Methyl-2,4-pentanediol 9.0vol%
Vapor pressure	: No data available
Vapor density (air=1):	: No data available
Relative density:	: Product 1 : 2-Methyl-2,4-pentanediol 0.924
Solubility:	: Soluble in water (1000g/L), component other than 2-Methyl-2,4-pentanediol is insoluble.

### 10. Stability and Reactivity

Stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Due to organic matter, there is a danger of fire or explosion if it comes in contact with oxidizing substances.
Conditions to avoid	: Direct sunlight, hot surfaces, sparks, open flames, static discharge, other ignition sources
Incompatible materials	: Oxidizer, strong alkaline
Hazardous decomposition products	: Nothing in particular

### 11. Toxicological Information

Acute toxicity:	: Rosin : Mouse, oral LD50: >15000mg/kg 2-Methyl-2,4-pentanediol Rat, oral LD50: 4200mg/kg Rabbit, dermal LD50: 7900mg/kg
Skin corrosion/irritation:	: Mild skin irritation
Serious eye damage/eye irritation:	: 2-Methyl-2,4-pentanediol 0.924 Serious eye irritation.
Respiratory sensitization:	: No data available
Skin sensitization:	: No data available
Germ cell mutagenicity:	: No data available
Carcinogenicity:	: No data available
Reproductive toxicity:	: Not classified.
Specific target organ/systemic toxicity (Single exposure):	: May cause respiratory irritation; or May cause drowsiness or dizziness.

Specific target organ/systemic toxicity (Repeated exposure):	: No data available
Aspiration hazard:	: No data available

## 12. Ecological Information

2-Methyl-2,4-pentanediol	
Ecotoxicity	: Fish toxicity, not classified. Oryzias latipes 90 hours LC50>100mg/L
Hazardous to the aquatic environment, Acute hazard	: No data available
Hazardous to the aquatic environment, Chronic hazard	: No data available

## 13. Disposal Considerations

Commit disposal to industrial waste disposal contractor approved by government.
Remove contents completely when disposing empty container.
Dispose in accordance with related laws and local regulations.

## 14. Transport Information

【International regulations】	
Class	: Not applicable
UN No.	: Not applicable
Proper Shipping Name:	: Not applicable
IMDG /Packing Group:	: Not applicable
Marine Pollutant:	: Not applicable
【Local regulations】	
	: See "15. Regulatory Information".
	: Rail and road transportation information: Follow Fire Service Act (Japan).
	Marine/Aviation transportation information: Non-dangerous goods
Special precautions:	: For transportation, prevent direct sunlight, load without container damage, corrosion, leak. Take secure preventative precautions for load shifting. Do not load heavy goods on top. Do not load on top of other dangerous goods or flammable dangerous goods. Do not load near other dangerous goods.

## 15. Regulatory Information

Fire Service Act (Japan):	: Category IV, Class III petroleum (Nonaqueous liquid) Class III Specified quantity 2000L
Industrial Safety and Health Act (Japan):	: Harmful Substances Subject to Be Indicated by Name, etc. (Article 18-2 in Order for Enforcement, Appended Table 9) Cabinet order No. 593, 2-Methyl-2,4-pentanediol
Labor Standards Act (Japan):	: Not applicable
Ship Safety Act (Japan):	: Not applicable
Civil Aeronautics Act (Japan):	: Not applicable
PRTR:	: Not applicable
Poisonous and Deleterious Substances Control Act:	: Not applicable
RoHS:	: Regulated substances not included/used.

## 16. Other information

The information herein is given in good faith, but is not a warranty. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards, which exist.