

**1. IDENTIFICATION OF THE SUBSTANCE AND THE SUPPLIER**

Product identifier	: Tip refresher BS-2		
Manufacturer	: TAIYO ELECTRIC IND.CO.,LTD.	Section	: Engineering department
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**2.HAZARD IDENTIFICATION**

## &lt;GHS classification&gt;

Flammable liquids	: No classification
Acute toxicity(Oral)	: Not classified
Acute toxicity(Dermal)	: Not classified
Inhalation(Gases)	: No classification
Inhalation(Vapors)	: No classification
Inhalation(Dusts/Mists)	: Not classified
Skin corrosion/Irritation	: Not classified
Serious eye damage/eye irritation	: Not classified
Sensitization(Respiratory)	: Classification not possible
Sensitization(Skin)	: Classification not possible
Germ cell mutagenicity:	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ systemic toxicity(Single exposure)	: Not classified
Specific target organ systemic toxicity(Repeated exposure)	: Category1 (lungs)
Hazardous to the aquatic environment	
Acute hazard	: Classification not possible
Chronic hazard	: Classification not possible

## &lt; GHS label elements &gt;



## &lt; Hazard Statement &gt;

**Danger**

## &lt; Hazard and toxicity information &gt;

- Cause damage to organs(lungs)through prolonged or repeated exposure.

## &lt; Precautionary statement &gt;

## 【Prevention】

- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after handling.
- Do not breathe dust/fume/gas/mist/vapors/spray.

## 【Response】

- Get medical advice/ attention, if you feel unwell.

## 【Storage】

Avoid the direct rays of the sun and store in tightly sealed containers at a well-ventilated cool place.

## 【Disposal】

- Dispose of contents/container in accordance with local/regional/national/international regulations.

**3.COMPOSITION / INFORMATION ON INGREDIENTS**

Classification of the : Mixture

chemical substance

or/mixture

Chemical name or : Tip refresher

common name:

## &lt; Concentration or Concentration range &gt;

Chemical name	Percent (wt%)	Chemical formula	Law Concerning the Examination and Regulation of Manufacturer etc. of Chemical Substances	CAS No.
Ammonium dihydrogen phosphate	60 - 75%	$\text{NH}_4\text{H}_2\text{PO}_4$	1-379	7722-76-1
Tin	20 - 40%	Sn	Not applicable	7440-31-5
Paraffin wax	1 - 6%	$\text{C}_n\text{H}_{2n+2}$ (C=20 -35 )	8-414	8002-74-2

## &lt; Legally relevant components &gt;

Chemical name	Industrial Safety and Hygiene Law Enforcement Order Article 18-2	PRTR
Ammonium dihydrogen phosphate	Not applicable	Not applicable
Tin	Substances to be notified #322	Not applicable
Paraffin wax	Substances to be notified #170	Not applicable

**4.FIRST-AID MEASURES**

IF INHALED:	: Remove victim to fresh air. Get medical advice/attention.
IF ON SKIN	: Wash with plenty of soap and water. Get medical advice/attention.
IF IN EYES	: Rinse cautiously with water for several minutes. Get immediate medical advice/attention.
IF SWALLOWED	: Rinse mouth. Do not induce vomiting. Get immediate medical advice/attention.
Most important effects and symptoms:	: No information available
Protection for first-aid responders	: No information available
Note to physician	: No information available

**5.FIRE- FIGHTING MEASURES**

Extinguishing media:	: Dry chemical or disaster preventive sand
Unsuitable extinguishing media:	: Water
Specific hazards arising from the chemical if burning	: Black smoke, the carbon monoxide, and other toxic gases are generated by pyrolysis and the incomplete combustion, and there is a possibility of danger by these inhalations.
	: There is a risk of generation of irritating fume or toxic fume by fire.
Specific firefighting measures	: Move mobile container immediately to safe place.
	: Spray water to the surrounding facilities and cool them.
	: Fire-fighting shall be conducted from the windward of the fire as much as possible.
Special protective equipment for fire fighter	: Depending on the situation, protective equipment such as chemical cartridge respirator for fire-fighting and protective clothing shall be worn.

**6.ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures	: Wear protective gloves.
Environmental precautions	: Pay attention so that the product does not flow into the sewage or public water area.
Methods and materials for containment and cleaning up	: Wipe off most of the containment with waste cloth and the like, then wipe off the residual with alcohol. Sweep up the residue, and store in a suitable container.

Prevention of secondary disaster : Use safe tools which will not generate sparks.

## 7. HANDLING AND STORAGE

### 【Handling】

Appropriate engineering controls : Carry out equipment countermeasure and have on protective equipment following term of 「8 EXPOSURE CONTROL/PERSONAL PROTECTION」

Local exhaust/Total ventilation : Provide local ventilation or general ventilation following term of「8 EXPOSURE CONTROL/PERSONAL PROTECTION」.

General precautions : Make efforts to keep the working place tidy and in order, and keep away from fire.

Precautions for safe handling : See the disclaimer of 「2 HAZARD IDENTIFICATION」.

### 【Storage】

Appropriate engineering controls : No information available.

Appropriate storage conditions : Avoid the direct rays of the sun and store in tightly sealed containers at a well-ventilated cool place.

Safe containers and packaging materials : Appropriate containers and packaging materials。

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Install equipment to wash the hands and eyes nearby.  
: Handling place shall be well ventilated.  
: Volatile matter may be generated during the soldering work, therefore use a local ventilator as necessary.

Exposure limit : Not established.

Tolerable concentration

Tin	2(metal)mg/m3	TWA	ACGIH
Tin	2(oxide inorganic compounds)mg/m3	TWA	ACGIH
Paraffin wax	2mg/m3	TWA	ACGIH

### 【Personal protective equipment】

Respiratory protection : Use a protective mask as required.

Hand protective equipment : Use protective gloves.

Eyes/Face Protection : Wear protective glasses as required.

Skin and personal protective equipment	: Use work clothes and safety shoes as required.
Appropriate hygiene measures	: After work, wash hands well and gargle before smoking, eating etc.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Shape, color	: Paste form, Gray
Odor/Odor threshold	: Faint ammonia odor / Not applicable
PH	: Not applicable
Melting point / Freezing point	: [Product] 217-220°C (solder) [Ammonium dihydrogen phosphate] 190°C
Boiling point	: [Tin] 2507°C [Paraffin wax] 322°C
Initial boiling point and boiling range	: Not applicable
Flash point	: Paraffin wax 199°C
Autogenous ignition temperature	: Paraffin wax 245°C
Flammability (solid, gas)	: Not applicable
Lower flammability or explosive limits	: Paraffin wax 0.6Vol%
Upper flammability or explosive limits	: Paraffin wax 6.5Vol%
Vapor pressure	: Tin 1Pa (1224°C)
Vapor density (air=1)	: Not applicable
Evaporation rate	: Not applicable
Specific gravity (Relative density)	: [Product] 4 (Specific gravity) [Ammonium dihydrogen phosphate] 8(Specific gravity) [Paraffin wax] 0.9(Specific gravity)
Solubility	: Not applicable
Partition coefficient; n-octanol/water	: [Paraffin wax] 6
Decomposition temperature	: Not applicable

## 10. STABILITY AND REACTIVITY

Chemical stability	: Stable at ordinary storage and handling conditions.
Possibility of hazardous reactions	: There is fear of reacting with strong acid or strong alkali

Conditions to avoid	: Avoid contact with direct rays of the sun and high temperature body other than soldering purpose.
Incompatible materials	: Strong acid or strong alkali.
Hazardous decomposition products	: It decomposes by burning or high temperature, and there is possibility of generating toxic gases (black smoke, carbon monoxide, etc.)

## 11.TOXICOLOGICAL INFORMATION

Acute toxicity	Ammonium dihydrogen phosphate	>4640mg/kg	Hypodermic rabbit (LD50)	RTECS
	Paraffin wax	>5000mg/kg	Oral rat (LD50)	IUCLID
	Paraffin wax	>3600mg/kg	Hypodermic rabbit (LD50)	IUCLID
Skin corrosion/irritation	: No information available			
Serious eye damage/eye irritation	: No information available			
Respiratory sensitization	: No information available			
Skin sensitization	: No information available			
Mutagenicity (Germ cell mutagenicity)	: No information available			
Carcinogenicity	: No information available			
Reproductive toxicity	: No information available			
Specific target organ systemic toxicity - Single exposure	: No information available			
Specific target organ systemic toxicity - Repeated exposure	: [Tin]Causes damage to organ(lung)through prolonged or repeated exposure			

## 12.ECOLOGICAL INFORMATION

Ecotoxicity •Fish	: No information available
Ecotoxicity•Crustacean	: No information available
Ecotoxicity•Algae	: No information available
Persistence /Degradability	: No information available
Bio accumulative Potential	: No information available
Mobility in soil	: No information available
Other adverse effects	: Because of many unknown items do not discard in general environment.

**13.DISPOSAL CONSIDERATIONS**

Residual waste	: Commit disposal special waste disposal contractors approved by the Metropolitan, Hokkaido ,or Prefectural Governors in case of Japan.
Contaminated containers	: As for containers that have been used, remove the contents completely, and commit disposal to industrial waste disposal contractor that have received approval from the municipalities.

**14.TRANSPORT INFORMATION****【international regulations】**

UN classification	: Not applicable to the criteria for classification.
UN Number	: Not applicable to the criteria for classification.
UN proper shipping name	: Not applicable to the criteria for classification.
Packing group	: Not applicable to the criteria for classification.
Marine pollutant	: Not applicable to the criteria for classification.

**【Domestic regulations】**

	: Refer to laws and regulation that are applied
Special precautions	: No information available
Special precautions and conditions which a user needs to comply with transport	: Load so that there will be no tumbling, dropping no damaging and securely conduct load collapse prevention.

**15.REGULATORY INFORMATION**

Follow all regulation in your country.

Industrial Safety and Health Act in Japan	: Substances to be notified, which are specified in Law article 57-2 Cabinet order number 18-2 [Tin]#322 [Paraffin wax]#170
PRTR in Japan	: Not applicable
RoHS in EU	: Compliance ( regulated substances are not included)

Occupation safety and health act in Korea	: [Ammonium dihydrogen phosphate]-- Not applicable : [Paraffin wax]-- Exposure standard-setting substance : [Tin] -- The measured substance at work environment (the measurement cycle: every 6 months) Controlled toxic substance Special health diagnosis target substance (the diagnosis target cycle: every 12 months) Exposure standard-setting substance
Toxic Chemicals Control Act in Korea	: Not applicable
Safety Control of Dangerous Substances Act in Korea	: [Ammonium dihydrogen phosphate] [Paraffin wax]-- Not applicable : [Tin] -- Class 2 metal
The Waste Control Act in Korea	: [Ammonium dihydrogen phosphate] [Paraffin wax]-- Specified waste : [Tin] -- Not applicable
Persistent Organic Pollutants Control Act in Korea	: Not applicable

**16. Other information**

The information herein is given in good faith, but not a warranty. Final determination of suitability any of 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.