SHEET 0711500

Safety Data Sheet
Date of Issue: |Revision Date: 05/23/2016 |Revision Number:
Imperial Supplies Part Number: 0711500

SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form:
Product Name: HEAT SHRINKABLE TERMINALS
CAS No:
Synonyms:

1.2. Intended Use of the Product
Use of the substance/mixture: Electrical Terminals

1.3. Name, Address, and Telephone of the Responsible Party
Company
K.S. TERMINALS INC.
No. 8 Zhiangbin E. 3rd Road,
Xianxi Township. Changhua County 507
Email: Huichen@ksterminals.com.tw
Phone: +886-4-7580001-529

1.4. Emergency Telephone Number
Emergency | +886-4-7580001
number |

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Not applicable|

|

|

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)					
Signal Word (GHS-US)	Not applicable				
Hazard Statements (GHS-US)	Not applicable				
Precautionary Statements (GHS-US)	Precautionary statement(s) Prevention: Not Applicable Precautionary statement(s) Response: Not Applicable Precautionary statement(s) Storage: Not Applicable Precautionary statement(s) Disposal: Not Applicable				

2.3. Other Hazards

Other Hazards Not Contributing to the Classification:

2.4. Unknown Acute Toxicity (GHS-US)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Product identifier	%	Classification (GHS-US)

Full text of H-phrases: See Section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Copper	7440-50-8	84.992754	
Polyethylene	9002-88-4	14.905149	
tin	7440-31-5	0.085086	
phosphorus	7723-14-0	0.017002	
lead	7439-92-1	0.000009	

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General:

First-aid Measures After Inhalation: If fumes, aerosols or combustion products are inhaled remove from contaminated area.

Other measures are usually unnecessary.

First-aid Measures After Skin Contact: If skin or hair contact occurs: Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation.

For thermal bums:

Decontaminate area around bum.

Consider the use of cold packs and topical antibiotics-For first-degree bums (affecting top layer of skin)

Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. Use compresses if running water is not available.

Cover with sterile non-adhesive bandage or clean cloth.

Do NOT apply butter or ointments: this may cause infection.

Give over-the counter pain relievers if pain increases or swelling, redness, fever

occur. For second-degree bums (affecting top two layers of skin)
Cool the bum by immerse in cold running water for 10-15 minutes.
Use compresses if running water is not available.
Do NOT apply ice as this may lower body temperature and cause further damage.
Do NOT break blisters or apply butter or ointments; this may cause infection
Protect bum by cover loosely with sterile. nonstick bandage and secure in place with gauze or tape.
To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):
Lay the person flat.
Elevate feet about 12 inches.
Elevate bum area above heart level, if possible.
Cover the person with coat or blanket k Seek medical assistance.
For third-degree bums
Seek immediate medical or emergency assistance. In the mean time:
Protect bum area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave Iint in wound.
Separate burned toes and fingers with dry, sterile dressings.
Do not soak bum in water or apply ointments or butter this may cause infection.
To prevent shock see above.
For an airway bum, do not place pillow under the person's head when the person is tying down. This can close the airway.
Have a person with a facial bum sit up
Check pulse and breathing to monitor for shock until emergency help arrives.
First-aid Measures After Eye Contact: If this product comes in contact with eyes:
Wash out immediately with water. If irritation continues, seek medical attention.
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
First-aid Measures After Ingestion: Immediately give a glass of water.
First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries:
Symptoms/Injuries After Inhalation:
Symptoms/Injuries After Skin Contact:
Symptoms/Injuries After Eye Contact:

Symptoms/Injuries After Ingestion:
Chronic Symptoms:

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media:
Foam
Dry chemical powder.
BCF (where regulations permit).
Carbon dioxide.
Unsuitable Extinguishing Media:

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
Explosion Hazard:
Reactivity:

5.3. Advice for Firefighters
Precautionary Measures Fire:
Firefighting Instructions:
Alert Fire Brigade and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water courses.
Use water delivered as a fine spray to control fire and cool adjacent area.
Protection During Firefighting:
Combustible solid which bums but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.

Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).
Avoid generating dust, particularly clouds of dust in a confined or un-ventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may bum rapidly and fiercely if ignited- particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
Combustion products include; carbon monoxide (CO) carbon dioxide (CO2) formaldehyde acrolein, other pyrolysis products typical of burning organic material.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures:

6.1.1. For Non-emergency Personnel
Protective Equipment:
Emergency Procedures:

6.1.2. For Emergency Responders
Protective Equipment:
Emergency Procedures:

6.2. Environmental Precautions

6.3. Methods and Material for Containment and Cleaning Up

For Containment:
Methods for Cleaning Up:
Minor Spills:
Clean up all spills immediately.
Avoid contact with skin and eyes.
Wear impervious gloves and safety glasses.
Use dry clean up procedures and avoid generating dust.
Major Spills:
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
Control personal contact with the substance, by using protective equipment and dust respirator.
Prevent spillage from entering drains, sewers or water courses.

6.4. Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Additional Hazards When Processed:
Safe handling:
Limit all unnecessary personal contact.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Avoid contact with incompatible materials.
Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result m a fire or dust explosion (includng secondary explosions).
Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.
Establish good housekeeping practices.
Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.

Other information:
Store in original containers.
Keep containers securely sealed.
Store in a cool, dry area protected from environmental extremes.
Store away from incompatible materials and foodstuff containers.
Hygiene Measures:

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures:
Storage Conditions:
Suitable container:
PE bag.
Lined metal can, lined metal pail/ can. r Plastic pail.
Polyliner drum.

Storage incompatibility:
Avoid contamination of water foodstuffs, feed or seed
Avoid reaction with oxidising agents.

7.3. Specific End Use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
OCCUPATIONAL EXPOSURE LIMITS (OEL)
INGREDIENT DATA:

Source
Ingredient
Material name
TWA
STEL
Peak
Notes

US OSHA Permissible Exposure Levels (PELs) -Table Z1
copper
Copper - Fume/ Copper
0.1 mg/m3 /1 mg/m3
Not Available
Not Available
(as Cu) / (as Cu);Dusts and mists

US OSHA Permissible Exposure Levels (PELs) -Table Z3
copper
Inert or Nuisance Dust
5 mg/m3 / 15mg/m3/ 15 mppcf/ 50 mppcf
Not Available
Not Available
Respirable fraction;AII inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, which is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1. / Total dust AII inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, which is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1.

US ACGIH Threshold Limit Values (TLV)
copper
Copper - Fume, as Cu / Copper -Dusts and mists, as Cu
0.2 mg/m3 /1 mg/m3
Not Available
Not Available
TLV® Basis: lrn Gl; metal fume fever BEI

US NIOSH Recommended Exposure Limits (RELs)
copper
Copper metal dusts, Copper metal fumes
1 mg/m3
Not Available
Not Available
[*Note: The REL also applies to other copper compounds (as Cu) except Copper

fume.]

US OSHA Permissible Exposure Levels (PELs) -Table Z1
tin
Tin, organic compounds
0.1 mg/m3
Not Available
Not Available
(as Sn)

US OSHA Permissible Exposure Levels (PELs) -Table Z1
tin
Tin, inorganic compounds
2 mg/m3
Not Available
Not Available
(as Sn); (except oxides)

US NIOSH Recommended Exposure Limits (RELs)
tin
Metallic tin, Tin flake. Tin metal, Tin powder
2 mg/m3
Not Available
Not Available
[*Note: The REL also applies to other inorganic tin compounds (as Sn) except tin oxides.]

US OSHA Permissible Exposure Levels (PELs) -Table Z3
phosphorus
Inert or Nuisance Dust
5 mg/m3 / 15mg/m3/ 15 mppcf/ 50 mppcf
Not Available
Not Available
Respirable fractional inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, which is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1. / Total dustAII inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit which

is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1.

US NIOSH Recommended Exposure Limits (RELs)
phosphorus
Elemental phosphorus, White phosphorus
0.1 mg/m3
Not Available
Not Available
Not Available

US OSHA Permissible Exposure Levels (PELs)- Table Z1
lead
Lead, inorganic
0.05 mg/m3
Not Available
Not Available
(as Pb);see 1910.1025;lf an employee is exposed to lead for more than 8 hours in any work day the permissible exposure limit, as a time weighted average (TWA) for that day shall be reduced according to the following formula:Maximum permissible limit (in pg/m3)=400+hours worked in the day

US ACGIH Threshold Limit Values (TLV)
lead
Lead and inorganic compounds, as Pb
0.05 mg/m3
Not Available
Not Available
TLV® Basis: CNS & PNS impair hematologic eff; BEI

US NIOSH Recommended Exposure Limits (RELs)
Lead
Lead metal, Plumbum
0.05 mg/m3
Not Available
Not Available
See Appendix C ['Note: The REL also applies to other lead compounds (. Pb) - see

Appendix C]

EMERGENCY LIMITS:

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
copper	Copper	1 mg/m3	1 mg/m3	45 mg/m3
polyethylene	Polyethylene	10mg/m3	110mg/m3	1000mgym3
tin	Tin	6 mg/m3	67 mg/m3	400 mg/m3
phosphorus	Phosphorus (red)	0.27 mg/m3	3 mg/m3	3 mg/m3
lead	Lead	0.15mg/m3	120 mg/m3	

700 mgym3

Ingredient
Original IDLH
Revised IDLH

copper
N.E. mgfin3 / N.E. ppm
100 mg/m3

tin
Unknown mg/m3 / 400 mg/m3 / Unknown ppm
25 mg/m3 / 100 mg/m3

lead
700mg/m3
100 mg/m3

8.2. Exposure Controls

Appropriate Engineering Controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure 3nd/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment.
Personal Protective Equipment	
Materials for Protective	

Clothing	
Hand Protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and.has to be observed when making a final choice. Suitability and durability of glove type is dependent on usage. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene nitrile rubber. butyl rubber.
Eye Protection	Safety glasses with side shields Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants A written policy document, describing the wearing of lenses or restrictions on use. should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.
Skin and Body Protection	See Hand protection below No special equipment needed when handling small quantities Otherwise Overalls Barrier cream Eye wash unit
Respiratory Protection	Particulate. (AS/NZS 1716 & 1715, EN 143:000 &

	149:001, ANSI Z88 or national equivalent).
Thermal Hazard Protection	Not Available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	Solid
Appearance	Metal silver + various colors PE
Odor	Not Available
Odor Threshold	Not Available
pH	Not Available
Relative Evaporation Rate (butyl acetate=1)	Not Available
Melting Point	Not Available
Freezing Point	
Boiling Point	Not Available
Flash Point	Not Available
Auto-ignition Temperature	Not Available
Decomposition Temperature	Not Available
Flammability (solid, gas)	Not Available
Vapor Pressure	Not Available
Relative Vapor Density at 20 °C	Not Available
Relative Density	Not Available
Specific Gravity	Not Available
Solubility	Not Available
Partition coefficient: n-octanol/water	Not Available
Viscosity	Not Available
Lower Flammable Limit	Not Available
Upper Flammable Limit	Not Available

9.2. Other Information

VOC: Not Available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
See Section 7

10.2 Chemical Stability
Product is considered stable and hazardous polymerisation will not occur.

10.3 Possibility of Hazardous Reactions
See Section 7

10.4 Conditions to Avoid
See Section 7

10.5 Incompatible Materials
See Section 7

10.6 Hazardous Decomposition Products
See Section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects
Acute Toxicity:
Skin Corrosion/Irritation:
Serious Eye Damage/Irritation:
Respiratory or Skin Sensitization:
Germ Cell Mutagenicity:
Carcinogenicity:
Reproductive Toxicity:
Specific Target Organ Toxicity (Single Exposure):
Specific Target Organ Toxicity (Repeated Exposure):
Aspiration Hazard:

Symptoms/Injuries After Inhalation: The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Symptoms/Injuries After Skin Contact: The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Symptoms/Injuries After Eye Contact: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windbum) Slight abrasive damage may also result.
Symptoms/Injuries After Ingestion: The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Chronic Symptoms: Long-term exposure to the product is not thought to produce chronic effects adverse to the hearth (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.2. Persistence and Degradability

Ingredient
Polyethylene
Persistence: Water/Soil
LOW
Persistence: Air
LOW

12.3. Bioaccumulative Potential

Ingredient	Bioaccumulation
Polyethylene	LOW (LogKOW = 1.2658)
Phosphorus	HIGH (BCF- 2310000)

12.4. Mobility in Soil

Ingredient	Mobility
Polyethylene	LOW (KOC = 14.3)

12.5. Other Adverse Effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations:

Recycle wherever possible.

Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal can be identified.

Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material)

Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Additional Information:

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS	
Hazard Class		<PICTOGRAM PHRASE>
Identification Number		
Label Codes		
ERG Number		

14.2 In Accordance with IMDG

Proper Shipping Name	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Hazard Class	
Identification Number	
Label Codes	<PICTOGRAM PHRASE>
ntification Of The	
Substance/m	
EmS-No. (Fire)	
EmS-No. (Spillage)	

14.3 In Accordance with IATA

Proper Shipping Name	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
Identification Number	<PICTOGRAM PHRASE>
Hazard Class	
Label Codes	
ntification Of The	
Substance/m	
ERG Code (IATA)	

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CPR 302.4)

Name

Reportable Quantity in Pounds (lb)

Reportable Quantity in kg

Copper

5000

2270

Lead

10

4.54

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard No Delayed (chronic) health hazard No Fire hazard No Pressure hazard No Reactivity' hazard No
Toxic Substances Control Act (TSCA)	

15.2 US State Regulations

State Regulations

US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Lead and lead compounds: Lead Listed

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date	05/23/2016
Other Information	The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.
GHS Full Text Phrases:	

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