



## **MATERIAL SAFETY DATA SHEET** **METAL SYSTEM**

### **1. IDENTIFICATION**

PRODUCT NAME : METAL SYSTEM

### **2. MANUFACTURER**

COMPANY : PT. APLUS PACIFIC

ADDRESS : JL. PRABU SILIWANGI KM. 3 PASIR JAYA  
JATI UWUNG – TANGERANG 15135

CONTACT : TEL. +62 21 – 5906938  
FAX. +62 21 – 5906933  
WEBSITE. [www.apluspacific.com](http://www.apluspacific.com)

### **3. COMPOSITION / INFORMATION ON INGREDIENTS**

Mild steel sections coated with zinc electrolytic process or hot dip galvanized process. The sections may have a protective film of a roll forming hydrocarbon (oil/paraffin etc) lubricant or a residue of cutting fluid.

### **4. HAZARDS IDENTIFICATION**

There is a risk of cuts and abrasions from sharp edges or protrusions and from tensioned banding. Frequent handling may cause skin problems from the residue of lubricant/rust inhibitors. During welding or cutting, irritant fumes may be evolved which can cause metal fume fever.

### **5. FIRST AID MEASURES**

Skin Contact : Rinse skin with running water, then wash with water and soap.

Eye Contact : Irrigate with plenty of water and obtain medical advice.

Inhalation : Remove the person to fresh air.

Ingestion : Wash out mouth and give the patient plenty of water.

### **6. FIRE FIGHTING MEASURES**

Metal sections are non-flammable, but the protective coating/lubricant may be combustible and should be extinguished by using carbon dioxide, dry powder, foam, sand, earth or plaster.



## 7. ACCIDENTAL RELEASE MEASURES

Control and collect any metal dust, sweep up and shovel into bags. (refer to section 9, Exposure/Protection and section 14. Disposal Considerations).

## 8. HANDLING AND STORAGE

When using hand tools eye protection should be worn.

Formed edges and cut ends may be sharp. Gloves should be worn when handling the material to avoid risk of lacerations.

Head protection should be worn when overhead hazards exist.

Avoid prolonged contact with skin and wear protective clothing when handling metal sections (refer to section 9).

Supplied bundled in small packs and strapped together in large packs for fork-lift truck off-loading, which should be stacked in a safe and stable manner. The bands or straps should not be used for lifting. Metal sections may spring apart when banding is released.

Note : If handling manually, consider risks as required by manual handling operations regulations. Metal sections are not designed to support body weight; fixers must work from an independent support system.

## 9. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational exposure limits

Substance	Total inhalable	Total respirable
Iron Oxide	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Zinc Oxide	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>

Chromium metal also chromium (II) and chromium (III) compounds (as Cr) long term 0.5 mg/m<sup>3</sup> (OEL).

Chromium (VI) compounds (as Cr) long term 0.05 mg/m<sup>3</sup> (MEL).

Antimony and its compounds (as Sb) long term 0.5 mg/m<sup>3</sup> (SEL).

Antimony trioxide and trisulphide (as Sb) long term 0.5 mg/m<sup>3</sup> (SEL).

Lead and lead compounds excluding tetraethyl lead (as Pb) long term 0.15 mg/m<sup>3</sup> (Approved code of practice. Lead in air standard)

\* TWA long term is 8 hours, short term is 15 minutes.



### Personal Protection

- Respiratory Protection : Ventilate the area of storage or work if fume or dust is produced. Wear approved respiratory equipment when welding, flame cutting or grinding.
- Eye Protection : Wear safety goggles to protect eyes when cutting tensioned banding .
- Hand Protection : Wear protective gloves, overalls and footwear, when handling sections.

## 10. PHYSICAL AND CHEMICAL PROPERTIES

### Physical data

Fire hazard rating	Ignitability	0
	Spread of flame	0
	Heat evolved	0
	Smoke developed	0

Non-combustible

(Refer to section 3 – Composition/Information on ingredients).

## 11. STABILITY AND REACTIVITY

Stable under normal conditions but when subjected to elevated temperatures fumes are produced. Chemical

## 12. TOXICOLOGICAL INFORMATION

Mechanical working such as dry grinding and machining, will product dust of the same composition as the coating and base metal. If subjected to elevated temperatures e.g. during welding or flame cutting, fumes are produced containing oxides of zinc and iron and also breakdown products of any protective coating if present.

The potential effects on health include metal fume fever, a short lasting, self limiting condition with symptoms similar to influenza.

The principal mode of entry into the body is by inhalation and if airborne concentrations are excessive over long periods of time they may have a long term effect on the health of the worker, primarily affecting the lungs.

## 13. ECOLOGICAL INFORMATION

No known harmful effects.



#### **14. DISPOSAL CONSIDERATIONS**

Recycle or can be disposed of at an authorised landfill site in accordance with local or national controls.

#### **15. TRANSPORT INFORMATION**

Not classified as hazardous for transport.

#### **16. REGULATORY INFORMATION**

This product is manufactured article, not a substance nor a preparation. According to the Indonesia regulations, no label is required.

#### **17. OTHER INFORMATION**

The information contained herein is based on the present state of our knowledge. Such information is to the best of our knowledge. However, no representation, warranty or guarantee is made to the accuracy, reliability or completeness of the information.

It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method of use. We do not accept liability for any loss or damage that may occur from the use of this information.