

**Heckmann Building Products Inc.**  
**1501 N. 31<sup>st</sup> Avenue**  
**Melrose Park, IL 60160-2911**  
**800-621-4140**  
**Fax: 708-865-2640**

MATERIAL SAFETY DATA SHEETS (MSDS) June 30, 2012.

Heckmann Building Products Inc. manufactures its building products from sheet steel, bar and coil stock, and wire in Plain Steel, Mill Galvanized Steel, Electro Galvanized After Fabrication, Hotdip Galvanized After Fabrication, and Stainless Steel. The products we manufacture present no health hazard in their natural state during use, storage, or transportation. However, operations such as flame cutting, shot blasting, or welding may generate concentrations of dust particles of the alloying elements that may present hazards. All operations of this nature should be performed in well ventilated areas.


The following paragraph is the exemption for finished products which are not welded, such as the Pos-I-Tie® anchoring system and the eye and pintle combination. It is from the Code of Federal Regulations:

**29 CFR Ch. XVII (7-1-92 Edition) 1910.1200 Hazard Communication. (6) (IV) Articles: (c) Definitions. ARTICLE means a manufactured item: (I) which is formed to a specific shape or design during manufacture; (II) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (III) which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.**

The information contained in the MSDS reports is intended to be used for employee health and safety education and not for specification purposes.

We appreciate your business and will continue to strive to provide a high quality of service and product to meet your requirements.

Sincerely,



Paul G. Curtis  
President

**Heckmann Building Products Inc.**  
**1501 N. 31<sup>st</sup> Avenue**  
**Melrose Park, IL 60160-2911**  
**708-865-2403**

**MATERIAL SAFETY DATA SHEET**  
**STAINLESS STEEL – revised June 30, 2000**

**I. PRODUCT INFORMATION**

Company: Heckmann Building Products Inc.,  
 1501 N. 31<sup>st</sup> Avenue  
 Melrose Park, IL 60160  
 708-865-2403.

Trade Name: Stainless Steels  
 Chemical Name: AISI/SAE Grades 300 Series, 400 Series, Special Alloys.  
 Form: Anchors, Ties, Flashing, Steel Connectors.

**II. PRODUCT INGREDIENTS**

MATERIAL (mg/m <sup>3</sup> )	CAS NUMBER	%WEIGHT	Exposure Limits	
			OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV
Base Metal				
Iron (Fe)	7439-89-6	38.0-89.6	10 Oxide Fume	5 Oxide Fume
Aluminum (Al)	7429-90-5	.01-0.5	Not Established	10 Dust/5 Fume
Carbon (C)	7440-44-0	.03-2.0	Not Established	Not Established
Chromium (Cr)	7440-47-3	10-27	1.0 Chrome Metal	0.5 Chrome Fume
Cobalt (Co)	7440-48-4	.01- .75	0.1 Cobalt Metal	0.05 Cobalt Fume
Copper (Cu)	7440-50-8	.18-4.5	0.1/Fume/1.0 Dust	0.2 Fume/1.0 Dust
Manganese (Mn)	7439-96-5	2-10	5c Dust/5c Fume	5c Dust/1 Fume
Molybdenum (Mo)	7439-98-7	.04-5	15 Insoluble Comp.	10 Insoluble Comp.
Nickel (Ni)	7440-02-0	.12-34	1 Nickel Metal	1 Nickel Metal
Phosphorous (P)	7723-14-0	.01-.06	0.1 Phosphorous	0.1 Phosphorous
Selenium (Se)	7782-49-2	.01-0.3	0.2 Se Metal	0.2 Se Metal
Silicon (Si)	7440-21-3	.15-2.0	Not Established	10 Total Dust
Sulfur (S)	7704-34-9	.01-.06	13 Sulfur Dioxide	5 Sulfur Dioxide
Titanium (Ti)	7440-32-6	.01-0.7	15 Ti Eioxide	15 Ti Eioxide
Columbium (Cb)	7440-25-7		Not Established	Not Established
Tantalum (Ta)	7440-03-1	.01-1.1	5.0 Ta Metal	5.0 Ta Metal

Note: The above listing is a summary of elements used in alloying Stainless Steels. Various grades of Stainless Steel will contain different combinations of these elements. Trace elements may also be present in minute amounts. No permissible exposure limits (PEL) or threshold limit values (TLV) exist for Stainless Steels. Values shown are applicable to component elements.

**III. PHYSICAL DATA**

PHYSICAL FORM: Solid under normal conditions BOILING POINT: Not applicable  
APPEARANCE & ODOR: Silvery gray odorless metal VAPOR PRESSURE: Not applicable  
SPECIFIC GRAVITY: (H2O=1): Approx. 8 VAPOR DENSITY: Not applicable.  
MELTING POINT: Approx. 2400 F - 2800 F ACIDITY/ALKALINITY: Not applicable.  
SOLUBILITY IN WATER: % by weight Not Applicable %VOLATILE BY VOLUME: Not applicable.

**IV. FIRE AND EXPLOSION DATA**

FLASH POINT: Not applicable AUTO IGNITION TEMP: Not applicable.  
FLAMMABLE LIMITS IN AIR: Not applicable.  
FIRE & EXPLOSION HAZARDS-EXTINGUISHING MEDIA: Stainless steel does not present fire or explosion hazards under normal conditions. Use fire fighting methods and materials that are appropriate for surrounding fire.  
Fine metal particles, such as produced in grinding and sawing, can burn. High concentration of metallic fines in the air may present an explosion hazard. Molten metal may explode on contact with water. For these fires, use dry powder or sand extinguishing media.

**V. ENVIRONMENTAL HEALTH & SAFETY INFORMATION**

HEALTH HAZARDS: Stainless steel products in their solid state present no inhalation, ingestion, or contact health hazard.  
Operations such as burning, welding, sawing, brazing, grinding, and machining, which result in elevating the temperature of the product to, or above its melting point, or result in the generation of airborne particulates may present hazards. The major exposure hazard is inhalation. Effects of overexposure to fume and dust are as follows:  
ACUTE: Excessive inhalation of metallic fumes and dusts may result in irritation of eyes, nose, and throat. High concentrations of fumes and dusts of iron-oxide, manganese, copper, and zinc may result in metal fume fever. Typical symptoms last from 12 to 48 hours and consist of a metallic taste in the mouth, dryness and irritation of the throat, chills, and fever.  
CHRONIC: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:  
ALUMINUM: Irritation of the eyes, nose, and throat.  
CHROMIUM: Lesions of the skin and mucous membranes, possible cancer of nose or lungs - bronchogenic carcinoma.  
COBALT: Respiratory tract irritation, skin rash.  
COPPER: Irritation of eyes, nose and throat, metal fume fever.  
IRON: Pulmonary effects, siderosis.  
Manganese: Bronchitis, pneumonitis, lack of coordination.

Molybdenum: Respiratory tract irritation, possible liver/kidney damage, bone deformity.

NICKEL: Lesions of the skin and mucous membranes, possibly cancer of nose or lungs, bronchogenic carcinoma.

PHOSPHOROUS: Necrosis of the mandible.

SELENIUM: Nasal and bronchial irritation, gastro-intestinal disturbances, garlic breath odor.

SULFUR: Edema of the lungs.

TITANIUM: No chronic debilitating symptoms indicated.

COLUMBIUM/TANTALUM: No chronic debilitating symptoms indicated.

Occupational Exposure Limits: See products ingredients Section 2. Chromium and Nickel have been identified by the International Agency for Research on Cancer and/or the National Toxicology Program as potential cancer causing agents.

EMERGENCY MEDICAL PROCEDURES: Inhalation: Remove to fresh air; if condition continues, consult a physician.

Eye Contact: Flush thoroughly with running water to remove particulate; obtain medical attention.

Skin Contact: Remove particles by washing thoroughly with soap and water. Seek medical attention if condition persists.

Ingestion: If significant amounts of metal are ingested, consult physician. If condition is voluntary, psychotherapy is advised.

OCCUPATIONAL PROTECTIVE MEASURES: Respiratory Protection: Appropriate dust/mist/fume respirator should be used to avoid excessive inhalation of particulates. If exposure limits are reached or exceeded, use NIOSH approved equipment.

Hands, Arms, and Body: Protective gloves should be worn as required for welding, burning, or handling operations.

Eyes & Face: Safety Glasses should be worn when grinding or cutting. Face shields should be worn when welding or burning.

Other clothing and Equipment: As required depending on operations and safety codes.

## **VI. REACTIVITY DATA**

Stability: Stable under normal conditions of use, storage and transportation.

INCOMPATIBILITY (Materials to avoid): Stainless steel at temperatures above the melting point may liberate fumes containing oxides of iron and alloying elements. Avoid generation of airborne fume and dust.

## **VII. SPILL, LEAK & DISPOSAL METHODS**

Fine turnings and small chips should be swept or vacuumed. Scrap metal can be reclaimed for rescue. Used or unused product should be disposed of in accordance with federal, state, or local laws and regulations.

**VIII. ADDITIONAL PRECAUTIONS**

Minimize and control operations producing airborne dust and fume. Provide adequate local and general exhaust ventilation. Maintain good housekeeping.

**IX. DISCLAIMER**

This MSDS is intended for use solely in safety education and environmental health training and not for specification purposes.

The information in this MSDS was obtained from usually reliable sources and is provided without and representation or warranty, express or implied regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. Heckmann Building Products Inc. assumes no responsibility and expressly disclaims liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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**1501 N. 31<sup>st</sup> Avenue**  
**Melrose Park, IL 60160-2911**  
**708-865-2403**

**MATERIAL SAFETY DATA SHEET**

**PLAIN STEEL, MILL GALVANIZED STEEL, HOTDIP GALVANIZED AFTER FABRICATION, ELECTRO GALV. (Carbon, Alloy Steels) revised June 30, 2000**

**I. PRODUCT INFORMATION**

Company: Heckmann Building Products Inc.,  
 1501 N. 31<sup>st</sup> Avenue  
 Melrose Park, IL 60160 708-865-2403

Trade Name: Plain Steel, Mill Galvanized Steel.

Chemical Name: Steel

Form: Masonry Anchors & Ties, Flashings, Rounds, Steel Building Anchors.

**II. PRODUCT INGREDIENTS**

MATERIAL	CAS NUMBER	% WEIGHT	Exposure Limits	
			OSHA PEL (mg/m3)	ACGIH
TLV(mg/3m)				
Base Metal Iron (Fe)	7439-89-6	Balance	10 (Fe,o,Fume)	5.0 (Fe,O,Fume)
Alloying Elements				
Carbon (C)	7440-44-0	0.01-1.5	None Listed	None Listed
Chromium (Cr)	7440-47-3	0.01-12	1.0 as chrome	0.5 as chrome
Copper (Cu)	7440-50-8	0.04-0.7	0.2 as copper	0.2 as fume
			1.0 as dust	1.0 as dust
Lead (Pb)	7439-92-1	0.15-0.35	0.05 as fume	0.15 as dust & fume
Manganese (Mn)	7439-96-5	0.05-2.0	5 as manganese	5 as dust 1 as fume
Molybdenum (Mo)	7439-98-7	0.01-1.10	15 as insoluble	10 as insoluble comp.
Nickel (Ni)	7440-02-0	0.01-10	1.0 as Nickel	1.0 as Nickel
Phosphorous (P)	7723-14-0	0.15 Max	0.1 as Phos	0.1 as Phosphorous
Silicon (Si)	7440-21-3	0.15-2.2	None Listed	10 total dust
Sulphur (S)	7704-34-09	0.001-0.35	13 sulfur dioxide	5 sulfur dioxide
Tungsten (W)	7440-33-7	0.0-18	None Listed	5 insoluble compounds
Vanadium (V)	7440-62-2	0.01-1.0	0.5 as dust	0.05 dust and fume
Zinc (Zn) Coating	1314-13-2	10 Max	5.0 as fume	5.0 as fume

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

## **Plain Steel, Mill Galvanized Steel - MSDS Page 2 Heckmann Building Products Inc.**

### **III. PHYSICAL DATA**

PHYSICAL FORM: Solid under normal conditions. BOILING POINT: Not applicable.  
APPEARANCE & ODOR: Grey-Black with Metallic Luster Odorless. VAPOR PRESSURE: Not applicable.

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 7 VAPOR DENSITY: Not applicable.

MELTING POINT: 2750 degrees F ACIDITY/ALKALINITY: Not applicable.

SOLUBILITY IN WATER % by weight: Not applicable.

% VOLATILE BY VOLUME: Not applicable.

### **IV. PERSONAL PROTECTIVE EQUIPMENT**

RESPIRATORY PROTECTION: NIOSH approved dust/mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is exceeded.

HANDS, ARMS, BODY: Use appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes.

EYES & FACE: Safety glasses should always be worn when grinding or cutting: face shields should be worn when welding or burning.

OTHER CLOTHING AND EQUIPMENT: As required. (Makes sense, doesn't it!)

### **V. EMERGENCY MEDICAL PROCEDURES**

INHALATION: Remove to fresh air; if condition continues, consult physician.

EYE CONTACT: Immediately flush well with running water to remove particulate; get medical attention.

SKIN CONTACT: If irritation develops, remove clothing and wash well with soap and water. If condition persists, seek medical attention.

INGESTION: If significant amounts of metal are ingested, consult physician.

### **VI. HEALTH & SAFETY INFORMATION**

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards. The above operations

should be performed in well ventilated areas. The major exposure hazard is inhalation.

Acute: Excessive inhalation of metallic fumes and dusts may result in irritation of eyes, nose and throat. Also high concentrations of fumes and dusts of iron-oxide, manganese, copper, zinc, and lead may result in the dreaded metal fume fever.

Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

## **Plain Steel, Mill Galvanized Steel - MSDS Page 3 Heckmann Building Products Inc.**

IRON: Pulmonary effects, siderosis.

MANGANESE: Bronchitis, pneumonitis, lack of coordination.

CHROMIUM: Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possible cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.

NICKEL: Same as Chromium.

COPPER: Pulmonary effects.

VANADIUM: No reported cases of exposure to vanadium.

MOLYBDENUM: Pain in the joints, hands, knees, and feet.

TUNGSTEN: Some evidence of pulmonary involvement such as cough.

LEAD: Prolonged exposures can cause behavioral changes, kidney damage, periphery neuropathy characterized by decreased hand-grip strength and adverse reproductive effects.

ZINC: None reported.

### **VII. FIRE AND EXPLOSION**

FLASH POINT: Not Applicable.

AUTO IGNITION TEMPERATURE: Not Applicable.

LIMITS IN AIR: Not Applicable.

FIRE AND EXPLOSION HAZARDS: None

EXTINGUISHING MEDIA NOT TO BE USED: None.

### **VIII. REACTIVITY**

Material is stable under normal conditions.

INCOMPATIBILITY: Reacts with strong acids to form hydrogen gas.

Conditions to avoid: Keep area well ventilated when cutting, welding, burning, or brazing. Avoid generation of airborne dusts and fumes.

HAZARDOUS DECOMPOSITION PRODUCTS: Metallic oxides.

### **IX. ENVIRONMENTAL**

Spill or leak procedures: Not applicable. Special Precautions: Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum. Waste Disposal Method: Dust, etc - follow federal, state, and local regulations regarding disposal.

### **X. DISCLAIMER**

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



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**708-865-2403**

**MATERIAL SAFETY DATA SHEET**  
**COPPER PRODUCTS** revised June 30, 2000

**I. PRODUCT INFORMATION**

Company: Heckmann Building Products Inc.,  
1501 N. 31<sup>st</sup> Avenue  
Melrose Park, IL 60160  
708-865-2403

Trade Name: Copper (OFHC)(DHP)(ETP) Electrolytic Tough Pitch Alloy 110.

Chemical Name: Copper (Cu)

Form: Anchors, Flashings, Misc. Steel Building Products.

**II. PRODUCT INGREDIENTS**

Base Metal Copper is the prime Ingredient. 99.9% Copper plus silver (less than .1% Ag).  
Copper, Dust 1 Mg/m<sup>3</sup>, Fume 0.1 Mg/m<sup>3</sup>. If exposure to copper dust/fume is kept below  
copper TLV, all trace elements should not pose any health risk.

**III. PHYSICAL DATA**

PHYSICAL FORM: Solid under normal conditions BOILING POINT: Not applicable

APPEARANCE & ODOR: Gold/Copper color odorless metal

VAPOR PRESSURE: Not applicable

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 8.9 VAPOR DENSITY: Not applicable

MELTING POINT: Approx. 1949 degrees F ACIDITY/ALKALINITY: Not applicable

SOLUBILITY IN WATER (% by weight) Not applicable

% VOLITILE BY VOLUME: Not applicable

**IV. FIRE AND EXPLOSION DATA**

FLASH POINT: Not applicable AUTO IGNITION TEMPERATURE: Not applicable

FLAMMABLE LIMITS IN AIR: Not applicable.

**V. ENVIRONMENTAL HEALTH & SAFETY INFORMATION**

Effect of Overdose : Fume and dust - sneezing, congestion, nausea, metallic taste, chills,  
fever. Not known to be carcinogenic.

EMERGENCY AND FIRST AID PROCEDURES: Skin: Flush thoroughly with water.

Eyes: Flush with water, call physician.

Ingestion: Drink water, induce vomiting, call physician.

Inhalation: Remove victim to fresh air, call physician.

**VI. REACTIVITY DATA**

Stability: Stable under normal conditions of use, storage and transportation.

Incompatibility (Materials to avoid): Reacts with strong acids to form hydrogen gas. Avoid acetylene and chlorine.

Hazardous Decomposition Products: Copper Fume

Hazardous Polymerization: Will not occur.

**VII. SPILL, LEAK & DISPOSAL METHODS**

Steps to be taken in case material is released or spilled: DUST or FUME: wear respirator following OSHA use instructions and shovel up, or vacuum and place in an approved DOT container and seal. Wash contaminated clothing. Used or unused product should be disposed of in accordance with federal, state or local laws and regulations.

**VIII. DISCLAIMER**

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The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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**708-865-2403**

**MATERIAL SAFETY DATA SHEET**  
**PLASTIC WEEP TUBES**

**1. PRODUCT IDENTIFICATION**

Company: 1501 N. 31<sup>st</sup> Avenue  
Melrose Park, IL 60160 708-865-2403  
Trade name: Plastic Weep Tubes  
Chemical Name: "TENITE" Butyrate Formulas 264, 285, 409,  
530, 550, 565, 566, 567, B2149-92B, B2249-95A  
Formula: Mixture

**2. PRODUCT INGREDIENTS**

A: COMPONENTS: % WEIGHT CAS REG. NO.  
Cellulose acetate >75 9004-36-8  
butyrate  
Bis(2-ethylhexyl) adipate <25 103-23-1  
See section 5 for information on exposure limits

B: PRECAUTIONARY LABEL STATEMENTS:

FIRST AID: If burned by contact with molten material cool as quickly as possible with water and see a physician for treatment of burn.  
Note To Physicians: Burns should be treated as thermal burns. The plastic will come off as healing occurs; therefore, immediate removal from the skin is not necessary.  
NOTICE: Refer to NPPA Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries" if this material is to be reduced to or collected as a powder.

**3. PHYSICAL DATA**

Appearance and Odor: Hollow tubes with low odor.  
Softening Point: >125 degrees C. (>257 degrees F)  
Specific Gravity (H201): >1.0  
Solubility in Water: Negligible.

**4. FIRE & EXPLOSION HAZARD DATA**

FLASH POINT: Not Applicable: Nonvolatile, combustible.  
EXTINGUISHING AGENT: Water spray, dry chemical, or Co2.  
SPECIAL FIRE-FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Refer to MFPA Pamphlet No. 654 "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical and Plastics Industries", if this material is to be reduced to or collected as a powder.

**5. REACTIVITY DATA**

STABILITY: Stable

INCOMPATIBILITY: Oxidizing materials can cause a reaction.

HAZARDOUS DECOMPOSITION PRODUCTS: As with other organic material, combustion will produce carbon dioxide and probably carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

**6. ENVIRONMENTAL HEALTH & SAFETY INFORMATION**

A: EXPOSURE LIMITS

Threshold Limit Value (TLV): Not established

OSHA Permissible Exposure Limit (PEL) Not Established

B: EXPOSURE EFFECTS

Inhalation: Low hazard for usual industrial handling.

Eyes: Low hazard for usual industrial handling

Skin: Molten material will produce thermal burns.

C: FIRST AID

Skin: If burned by contact with molten material, cool as quickly as possible with water and see a physician for treatment of burn. Treatment should be as with thermal burns. The plastic will come off as healing occurs, therefore, immediate removal from the skin is not necessary.

D: TOXICITY DATA

Toxicity data for the components of these materials are as follows:

**CELLULOSE ACETATE BUTYRATE**

TEST	Species	Result	Toxicity Class
Acute oral LD 50	Rat	>6400 mg/kg	Nontoxic
Dermal LO 50	Guinea Pig	>1000 mg/kg	
Skin irritation	Guinea Pig	Very slight	
Skin sensitization	None		

Feeding Study No. 1: Rats fed diets containing 20% of the compound for 7 days consumed approx. 16 g/kg/day with a maximum daily intake of 18.5 g/kg/day. The animals showed no ill effect from this massive dosage.

Feeding Study No. 2: Rats were fed diets containing 1.0% and 5.0% of the compound for 99 days. No biologically significant effects were noted in feed intake, weight gain, clinical signs, hematology, gross pathology, or histopathology. Feeding Study No. 3: Dogs were fed 50 to 150 g/day of the compound for 4 months without toxic effect. Only side effect noted was that the dogs would eat Frisbee's when thrown to them instead of retrieving them.

In Rats, intratracheal injection of cellulose acetate butyrate dust suspended in 0.25 mL of water gave no evidence of specific pulmonary reaction as judged by the histological appearance of the lungs at 10 days and 14 days after injection.

BIS( 2-ETHYLHEXYL )aDIPATE			
TEST	Species	Result	Toxicity
Acute oral LD 50	Rat	9100 mg/kg	Nontoxic
Dermal LD 50	Rabbit	16.3 ml/kg	Nontoxic
Skin Irritation	Rabbit	Slight	
Eye irritation	Rabbit	Slight	

Rats exposed to saturated vapor of the material for 8 hours showed no mortality. Rats fed levels of 0.5, 2.0, or 5.0% of the material in their diet for a month showed definite growth effect at 5%, but not at the lower levels. No changes in hematology, urine, or histopathology were noted at the lower levels. Similarly, except for a slight transient loss in appetite, no changes in these same parameters were observed in dogs fed 2 g/kg of the material in their diet for 2 months. Rats fed doses of 0.16 to 4.74 g/kg/day in their diet showed deaths at 4.71 g/kg; no effects were observed on growth, appetite liver and kidney weights, or histopathology at 0.16 g/kg.

## 7. VENTILATION AND PERSONAL PROTECTION

A: Ventilation: Good ventilation (typically 10 air changes per hour) should be sufficient to control airborne levels. Ventilation rates should be matched to conditions.

Supplementary local exhaust ventilation or respiratory protection may be needed in special circumstances such as mechanical generation of dust, overheating, etc.

B: Respiratory Protection: If respiratory protection is needed, an appropriate NIOSH-approved respirator for dust or fume should be worn. If respirators are used, a program should be established to assure compliance with OSHA Standard 20 CFR 1910.13A

C: Skin & Eye Protection: Safety glasses with side shields (or goggles) are recommended for any type of industrial chemical handling. Gloves should be worn to protect against thermal burns. Good industrial hygiene practice could be followed which includes minimizing skin contact.

## 8. SPECIAL STORAGE AND HANDLING PRECAUTIONS

Keep from contact with oxidizing materials.

## 9. SPILL, LEAK, & DISPOSAL PRACTICES

Steps to be taken in case material is released or spilled: Collect and contain for salvage or disposal.

Waste Disposal Method: Incineration or landfill, Observe all federal, state, and local laws concerning health and environment.

**10. ENVIRONMENTAL EFFECTS DATA**

These materials have not been tested for environmental effects.

**11. TRANSPORTATION**

DOT Hazard Classification: Not regulated by DOT.

**12. REFERENCES**

- A. File data, Material Safety Program, Eastman Chemicals Division, Eastman Kodak Company, Kingsport, Tenn.
- B. Unpublished data, Health and Environment Laboratories, Eastman Kodak Company.
- C. AM IHD HYG ASSOC Q 20, 93-96 (1949)

**13. HAZARD RATINGS**

	HEALTH	FLAMMABILITY	REACTIVITY
MMIS RATING:	0	1	0
NFPA RATING:	0	1	0

Notice: These ratings involve data and interpretations that may vary from company to company and are intended only for rapid, general identification of the magnitude of the specific hazard. TO DEAL ADEQUATELY WITH THE SAFE HANDLING OF THIS MATERIAL, ALL THE INFORMATION CONTAINED IN THIS MSDS MUST BE CONSIDERED. The customer is responsible for determining the proper personal protective equipment needed for its particular use of this material.

\*\*Hazardous Material Identification System's HMIS Revised

RAW MATERIALS RATING MANUAL, National Paint & Coatings Association Fall 1984

NFPA 704 Standard System for the Identification of the Fire Hazards of materials, national fire protection association 1933.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

**Heckmann Building Products Inc.**  
**1501 N. 31<sup>st</sup> Avenue**  
**Melrose Park, IL 60160-2911**  
**708-865-2403**

**MATERIAL SAFETY DATA SHEET**  
**Aluminum Alloys**

**1. PRODUCT IDENTIFICATION**

Company: 1501 N. 31<sup>st</sup> Avenue  
 Melrose Park, IL 60160 708-865-2403  
 Trade name: Aluminum  
 Form: Bar, Sheet, Plate, Tubing, Structural, and Forgings

**2. PRODUCT INGREDIENTS**

Material or Component	CAS Number	% Weight	Exposure Limits	
			1984-85 ACGIH TLV (mg/m <sup>3</sup> )	OSHA 1910.000 PEL (mg/m <sup>3</sup> )
Base Material				
Aluminum (Al)	7429-90-5	90-99.7	10.0 as metal dust and oxide 5.0 as welding fume	Not established Not Established
Alloying Elements				
Cobalt (Co)	7440-48-4	<1.0 – 10.0	0.1	0.1
Copper (Cu)	7440-50-8	<1.0 – 10.0	0.2 as fume	0.1 as fume
Iron (Fe)	1309-37-1	<1.0 – 10.0	5.0 as fume	10.0 as fume
Lead (Pb)	7439-92-1	<0.2 – 0.7	0.15 as dust and fume	0.05 as dust and fume
Magnesium (Mg)	1309-46-4	<1.0 – 10.0	10.0 as fume	15.0 as fume
Manganese (Mn)	7439-96-5	<1.0 – 10.0	1.0 as fume	5.0 calling
Silicon (Si)	7440-21-3	<1.0 – 10.0	10.0 as total dust	Not established
Tin (Sn)	7440-31-5	<1.0 – 10.0	2.0 as oxide and metal	2.0 as inorganic compounds
Zinc (Zn)	1314-13-2	<1.0 – 10.0	5.0 as fume	5.0 as fume

Note: Aluminum alloys will be comprised of various combinations of the elements shown here. In addition, Other alloying elements may be present in minute quantities.

**3. PHYSICAL DATA**

Material is Solid.	Metallic Appearance – No odor.
PH = N/A	Melting Point 900° – 1200° F. (approx.)
Specific Gravity (H2O = 1) – 2.5 – 2.9 Soulbility in water (% by weight) - Nil	Vapor Pressure = N/A

#### 4. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Appropriate respirator depending upon potential airborne contaminants and their concentrations. If exposure limits are reached or exceeded use NIOSH approved respiration equipment.	Hands, Arms, and Body: Appropriate gloves, especially for sheet and coil.
Eyes and Face: Safety glasses or shield as appropriate.	Other Clothing and Equipment. As needed depending on operation and safety codes.

#### 5. EMERGENCY MEDICAL PROCEDURES

<p>Skin Contact: Remove particles thoroughly by washing with soap and water.</p> <p>Eye Contact: Flush with water thoroughly. Get medical attention if irritation persists.</p>
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#### 6. HEALTH AND SAFETY INFORMATION

<b>HEALTH</b>
For standard operation (e.g. melting, cutting, grinding), aluminum alloys present a low health risk by inhalation and are usually considered a nuisance dust. Toxicity by ingestion – none expected. Skin and eyes – not an irritant. Welding and plasma cutting of alloys high in copper (2000 and 7000 series) may present the potential for overexposure to copper fume which can result in upper respiratory tract irritation, nausea, and the dreaded metal fume fever. Nickel and chromium are other alloying elements considered hazardous as fume; however, they do not present a carcinogenic or other health concerns due to their low concentrations of the chemical form in which they are present. Overexposure to lead fumes over an extended period of time can result in such toxic effects as central nervous system disturbances, renal changes, peripheral neuropathy, gastrointestinal disturbances, anemia, and chromosomal changes.
Medical conditions generally aggravated by exposure would be dermatitis and pulmonary disease or disorders.
Occupational Exposure Limits: See ingredients Section 1. Chromium and nickel have been identified by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) as potential carcinogens.
<b>FIRE AND EXPLOSION</b>
Flash Point = N/A Auto Ignition Temperature = N/A Flammable Limits in Air N/A Extinguishing Method: Dry Powder or sand
<b>REACTIVITY</b>
Stability = Stable Incompatibility (Materials to Avoid) = Reacts with strong acids to form hydrogen gas.
Conditions to Avoid: Aluminum products under normal conditions are stable during use, storage, and transportation. Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen. Finely divided aluminum, such as small chips and fines, will form explosive mixtures in air. It will also form explosive mixtures in air in the presence of bromates, iodates, or ammonium nitrate. Strong oxidizers cause violent reactions with considerable heat generation.
Hazardous Decomposition Products : See additional information Section VIII

#### VII. ENVIRONMENTAL

Spill or leak procedures: N/A
Waste Disposal Method: Used or unused product should be tested to determine hazard status and disposal requirements under federal, state, or local laws and regulations.



### VIII. ADDITIONAL INFORMATION

Other Precautions:

1. Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. Burns could result.
2. Aluminum powder must be packaged and shipped as a flammable solid.
3. Hard alloy ingots in the 2000 and 7000 series must be stress relieved to prevent explosion when sawed.
4. The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation, and ultraviolet radiation.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

**Heckmann Building Products Inc.**  
**1501 N. 31<sup>st</sup> Avenue**  
**Melrose Park, IL 60160-2911**  
**708-865-2403**

WebSite: [www.heckmannanchors.com](http://www.heckmannanchors.com)  
E-Mail: [info@heckmannanchors.com](mailto:info@heckmannanchors.com)

**MATERIAL SAFETY DATA SHEET**  
**700 Alloy Series (Firewall Anchors)**

**PRODUCT IDENTIFICATION**

Company: 1501 N. 31<sup>st</sup> Avenue  
Melrose Park, IL 60160 708-865-2403  
Trade name: Breakaway Firewall Anchors

**SUBSTANCE IDENTIFICATION**

Substance: Zinc Strip – 700 Alloy Series (700,710, 720, & 750)  
Synonyms: Zinc Coil, Strip Zinc Material

**HAZARDOUS COMPONENTS**

Hazardous Component(s): Contains no hazardous chemical as defined by 29 CFR 1910.1200.  
Exposure Limits: N/A

**PHYSICAL/CHEMICAL CHARACTERISTICS**

Description: Bluish-White Metal  
Specific Gravity: 7.1 (H<sub>2</sub>O = 1)  
Melting Point: 790 degrees F  
Solubility in Water: Insoluble

**FIRE AND EXPLOSION DATA**

Fire and Explosion Hazard: Negligible fire hazard when exposed to heat or flame. Excessive exposure to fumes from zinc and other alloy metals may produce flu-like symptoms of metal fume fever.  
Fire Fighting Media: Smother with suitable dry power (NFPA class D Fire)  
Fire Fighting: Use self-contained breathing apparatus.

**REACTIVITY**

Reactivity: Stable under normal temperatures and pressures.

Incompatibilities: Acids and alkalis react to evolve hydrogen gas.

Decomposition: Oxides/fumes from metals.

Polymerization: Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

**HEALTH EFFECTS AND FIRST AID**

Inhalation: Excessive exposure to fumes from zinc and other alloy metals may produce flu-like symptoms of metal fume fever.

First Aid: Remove from exposure area to fresh air immediately and refer patient to a physician.

Skin Contact: N/A

Ingestion: N/A

Carcinogens: Contains no substance found to be carcinogenic by NTP, IARC, or OSHA in quantities greater than 0.12% by weight.

**PRECAUTIONS FOR SAFE HANDLING AND USE**

Storage and Disposal: Observe all Federal, State, and Local regulations when storing or disposing of this substance. For assistance, contact the District Director of the Environmental Protection Agency.

Protective Equipment:

Ventilation – Provide local exhaust or process enclosure ventilation to meet published exposure limits.

Respirator – The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the national institute for occupational safety and health and the mine safety and health administration (NIOSH-MSHA).

Clothing – Appropriate for operation.

Gloves – Appropriate for operation.

Eye Protection – Appropriate for operation.

**ADDITIONAL INFORMATION**

This product or components of the product is subject to the reporting requirements of Section 313, Title II of the Superfund Amendments and Reauthorization Act of 1986 (SARA), 40 CFR Part 372. Zinc (fume or dust) is subject to SARA Section 313 reporting if the required threshold is reached. RQ = 1000 pound.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 40 CFR 302 also requires certain manufacturers to report on annual emissions of specific toxic chemical categories.

For more information contact the SARA Hotline at 800-424-9346 or EPCRA Hotline at 800-535-0202

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**MATERIAL SAFETY DATA SHEET**  
**#85 Cell Vents**

Important Note: This material safety data sheet (MSDS) conforms to the U.S. Department of Labor Occupational Safety and Health Administration requirements in 29 CFR 1910.1200 and is an integral part of any "Right to Know" program. This information should be read by the customer and made available to anyone who has reason to use or to come in contact with this product.

**Section 1 – Product Identification**

Product Name: #85 Cell Vents

Chemical Name(s) and/or synonym(s): Polypropylene Copolymer

Chemical Family: Proprietary Formula

**Section 2 – Hazardous Components**

Chemical Name(s): C.A.S.# % TLV PEL

Important Note: Pigments, additives and stabilizers are fully encapsulated in resin and are not expected to cause any hazardous conditions when processed in accordance with good manufacturing practices.

Any substance listed in section 2 are those identified as being present at a concentration of 1.0% or greater, or 0.1% or greater if the substance is on the list of potential carcinogens cited in the OSHA HAZARD COMMUNICATION STANDARDS or by the respective manufacturer. Where a proprietary ingredient shows, the identity of this substance may be made available as provided in 20 CFR 1910.1200.

**Section 3 – Physical Data**

Specific Gravity (H<sup>2</sup>O-1.0): .90 - .96

Physical Form: Opaque, Fluted Sheets

Solubility in Water: Essentially insoluble in water.

#### **Section 4 – Fire and Explosion Data**

Fire Extinguishing Media: Carbon Dioxide, Foam, Dry Chemical, Water Spray.

Special Fire Fighting Procedures: Recommend NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Decomposition and combustion products may be hazardous.

#### **Section 5 – Health Hazard Data**

Effects of Acute Overexposure: None expected.

Emergency First Aid Procedures: If burned by molten material, cool as quickly as possible with water and see a physician for removal of adhering material and treatment of burn.

Smoke or Dust Inhalation: Remove to fresh air and consult a physician.

#### **Section 6 – Reactivity Data**

Stability: Stable material.

Conditions to Avoid: None known.

Incompatibility (material to avoid contact with): None known.

Hazardous Decomposition By-Products: Thermal decomposition and burning may produce Carbon Monoxide, Carbon Dioxide.

Hazardous Polymerization: Will not occur.

#### **Section 7 – Spill or Leak Procedures**

Steps to be taken in case material is released or spilled: Sweep up and return to container or discard if contaminated.

Waste Disposal Method: Solid waste disposal in accordance with Federal, State, and Local Regulations.

#### **Section 8 – Special Protection Information**

Respiratory Protection: Particulate Mask. If dusting occurs, use chemical respirator.

Ventilation: Local exhaust, good building ventilation.

Special Ventilation Requirements: None, however dust creation should be minimized.

Hand/Skin Protection: Cloth gloves to prevent cuts and scrapes from edges.

Eye Protection: Safety glasses or chemical goggles.

Other Protective Equipment: None needed.

#### **Section 9 – Special Precautions or Comments**

Precautions to take in handling and storage: None. Normal bulk storage and handling of plastic. Do not expose materials to excessive heat, cold, or moisture.

Shipping Designation: Plastic rectangular units, flat.

D.O.T. Class/Number required: Not regulated.

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**MATERIAL SAFETY DATA SHEET**  
**Zinc Alloy #2 Heckmann Pos-I-Tie Barrels**

Emergency Number For Spills – Not applicable

For General Information – 800-621-4140

This information is believed to be accurate and represents the information currently available to us. However we **make** no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

**Substance Identification**

Material Name: Zinc Alloy #2 Alloy

**Hazardous Components**

Hazardous Component(s): Contains no hazardous chemical as defined by 29 CFR 1910.1200.

Eqosure Limits: NA

<b>Hazardous Components</b>	<b>OSHA PEL TWA</b>	<b>OSH PEL Ceiling</b>	<b>ACGIH TLV TWA</b>	<b>ACGIH TLV STEL</b>	<b>%</b>
Aluminum oxide					<1
Total dust	10	None	10	None	
Respirable dust	5	None	None	None	
Aluminum					3.9 to 4.3
Total dust	15	None	10	None	
Fume, Dust	5	None	5	None	
Iron					.075
Oxide fume	10	None	5	None	
Oxide total	10	None	None	None	

dust					
Lithium	None	None	None	None	< trace
Nitrides	None	None	None	None	<trace
Copper					2.6 to 2.9
Fume	0.1	None	0.2	None	
Total dust	1	None	1	None	
Magnesium					<trace
Magnesium oxide					<trace
Fume	10	None	10	None	
Respirable dust	5	None	None	None	
Lead					<.004
Zinc					93-94
Oxide fume	5	None	5	10	
Oxide total dust	15	None	10	None	
Oxide respirable dust	5	None	None	None	
Manganese	5	5	0.2	None	<trace
Carbides	None	None	None	None	<trace
Ammonia	55 ppm	None	25 ppm	35 ppm	<trace
Tin					< .002
Oxide and inorganic	2	None	2	None	
Cadmium					< .003
Chromium	1	None	0.5	None	<trace
Nickel	1	None	1	None	<trace
Cobalt	0.1	None	0.05	None	<trace
Silicon					<trace
Total dust	15	None	10	None	
Respirable dust	5	None	None	None	

**Physical/Chemical Characteristics**

Boiling Point	Approximately 1660° F	Specific Gravity (H <sub>2</sub> O = 1)	
Vapor Pressure (mm Hg.)	NA		
Vapor Density (Air = 1)	NA	Evaporation rate	NA
Solubility in Water	Not soluble	Appearance and odor	Metallic – grayish white – no odor

**Fire and Explosion Hazard Data**

Flash Point - NA

LEL – NA      UEL – NA

Extinguishing Media – Use dry chemical or carbon dioxide. Do not use water.

Zinc Dust in flammable in air at a concentration >430 grams/m<sup>3</sup>.

**Unusual fire explosion hazards** – Zinc dust in contact with acids or water generates Hydrogen. Molten zinc generates fume and dust that can be toxic causing respiratory problems. Never use water or molten metal or charge wet metallic zinc or explosion will occur.

**Reactivity:** Stable at room temperature

Avoid water with molten metal.

At temperatures above the melting point, zinc oxide fumes may be evolved.

Reaction with strong oxidizers liberates hydrogen gas which may be explosive.

**Health Hazard Data**

No health hazard or toxicity information exists for zinc alloys. Data for zinc, aluminum and copper are given instead. Aluminum is not generally regarded as an industrial toxin. In normal use, few health hazards occur.

Cutting, melting, welding, soldering or mechanical processing may produce dusts or fumes containing zinc or zinc oxide. Breathing these dusts or fumes may present potentially significant health hazards.

**Precautions for Safe Handling and Use**

If zinc is in a molten state, avoid contact with water or moisture.

Avoid breathing dust or fumes.

No hazards in solid state.

**Control Measures**

Wear full-face respirator if cutting material or if it is in a molten state.