



TRIANGLE FASTENER CORPORATION

1925 Preble Ave | Pittsburgh, PA | 15233
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SAFETY DATA SHEET

Report #: 102615SDS

Date: 02.20.17

Product: Zinc Alloy Concrete Anchor

Brands: ZAMAC Drive-Pin Anchor

1. IDENTIFICATION

Product Identifier: Concrete Anchor

Use Restrictions: None known.

Company: Triangle Fastener Corporation | Pittsburgh, PA

Phone: 1.800.486.1832

Website: www.trianglefastener.com

Emergency: 1.800.486.1832

For most current SDS, please visit our website at www.trianglefastener.com

2. HAZARD IDENTIFICATION

These products are considered an “article”, and does not require an SDS as defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Although these products are not subject to the OSHA Standard or GHS labeling elements, TFC would like to disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. In its manufactured and shipped state, these products are considered to present a low hazard. Under normal use conditions, these products are not expected to create any health or safety hazards. However, individual customer processes (welding, sawing, grinding, brazing, abrasive blasting) could result in the formation of fumes, dust, and/or particulate matter that may present the following hazards.

Physical Hazards: Not Classified.

Health Hazards Skin Corrosion/Irritation Category 3

Serious Eye Damage/Irritation Category 2

Sensitization, Skin Category 1

STOT, Single Exposure Category 3 (Respiratory Tract Irritation)

STOT, Repeated Exposure Category 2 (Lung)

Environmental Hazards: Not Classified.

Signal Word: **WARNING!**

Hazard Statements: May cause mild skin irritation. May cause eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. May cause damage to organs (lung) through prolonged or repeated exposure (inhalation of dust).



Precautionary Statements:

Prevention: Observe good industrial hygiene practices. Wear protective gloves/clothing/eye protection/face protection. Wash thoroughly after handling. Avoid breathing dust.

Response: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If inhaled: Remove victim to fresh air and keep in a position comfortable for breathing. If you feel unwell: Get medical advice/attention.

Storage: Store away from incompatible materials.

Hazards not otherwise Classified (HNOC): Dust and/or powders may form explosive dust/air mixtures. Avoid generating dust. Do not allow dust to build up on work surfaces.

3. COMPOSITION INFORMATION

Carbon Steel or stainless steel drive Pin with ferrous and non-ferrous plating. ZAMAC Zinc body

4. FIRST-AID MEASURES

Eye Contact: Flush with large amounts of water to remove particles. If redness, burning, blurred vision, or swelling persists, **consult a physician.**

Skin Contact: Wash affected area with soap and water. If a thermal burn has occurred, flush area with cold water and **consult a physician.**

Ingestion: Not a probable route of industrial exposure, however, if ingested immediately **consult a physician.**

Inhalation: For over-exposure to airborne dust or fumes, move patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms: Irritant effects.

General Information: Provide general supportive measures and treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: This material is not combustible and will not burn. Choose extinguishing media suitable for surrounding materials.

Additional Information: None known.

Hazards during Fire-Fighting: Dusts may present a fire or explosion hazard under rare favoring conditions of particle size, dispersion and strong ignition source. However, this is not expected to be a problem under normal handling conditions.

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. ACCIDENTAL RELEASE MEASURES



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Personal Precautions: Wear appropriate personal protective equipment. Avoid inhalation of dusts.

Clean-up Methods: Solid articles do not represent a spill hazard. Avoid actions that cause dust to be generated. Collect dust generated during processing using a vacuum cleaner equipped with a HEPA filter. If not possible, gently moisten dust before collection with shovel, broom, or the like.

Environmental Precautions: Avoid release of dust to the environment. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE

Handling: Wear appropriate personal protective equipment. If grinding or cutting use work methods which minimize dust production. Avoid inhalation of dust. Ensure adequate ventilation. Wash thoroughly after handling. Observe good industrial hygiene practices.

Storage: Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Measure: Protective coatings are used on most metal fasteners. Typically this will be commercial zinc, zinc plating with chromate conversion coating, hot dipped galvanizing, ceramic plating, or mechanically galvanized plating. This information should be considered when evaluating employee personal protective equipment.

Eye Protection: Wear goggles or safety glasses to protect eyes from dust and other particles.

Hand Protection: Gloves recommended.

Skin and Body Protection: Wear long sleeve shirts/long pants and other clothing as required to minimize contact.

Respirator Protection: Not required in properly ventilated areas.

General Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls: When using indoors good general ventilation should be used. Provide eyewash station.

Exposure Limits: No exposure limits noted for ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 DRIVE PIN

Physical State: Solid **Freezing/Melting Point:** 2600-2700°F (1426-1482°C)

Form: Solid **Boiling Point:** N/A

Color: Gray/Variou Colors **Flash Point:** N/A

Odor: None **Evaporation Rate:** N/A

Odor Threshold: N/A **Specific Gravity:** N/A

pH: N/A **VOC:** N/A

Flammability: N/A **U/L Flammability:** N/A

Vapor Pressure: N/A **Vapor Density:** N/A

Solubility: N/A **Kow:** N/A

Decomposition: N/A **Viscosity:** N/A



9.2 ZAMAC BODY

Information on basic physical and chemicals properties:

Appearance: Blueish grweay metallic soli

Odor: Odorless.

Odor threshold: Not applicable

pH: Not applicable

Melting point: 420 °C.

Boiling point: 907 °C

Flash point: Not flammable

Evaporation rate: Not applicable (solid)

Flammability: Not flammable Upper/lower flammability

Explosive limits: Not flammable

Vapor pressure: Not applicable (stable solid)

Vapor density: Not applicable (stable solid)

Relative density: Not applicable

Bulk density: 7.1 g/cm³

Solubility in water: Insoluble

Solubility in other ingredients: Insoluble Partition coefficient

Octanol/water: Not applicable

Auto-ignition temperature: Not applicable

Decomposition temperature Over 900 CC may form zinc oxide

Viscosity Not applicable (solid)

Explosion properties: Not explosive

Oxidizing properties: Not oxidizing.

10. STABILITY AND REACTIVITY

Reactivity: Stable.

Chemical Stability: Stable.

Condition to Avoid: None known.

Substances to Avoid: Acids.

Hazardous Reactions: Hazardous polymerization will not occur.

Decomposition Products: Thermal oxidative decomposition of galvanized steel products can produce fumes containing oxides of zinc, iron, manganese, as well as other elements.

11. TOXIOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: Not expected to be an ingestion hazard. Do not place metal fasteners in mouth.

Inhalation: May cause respiratory tract irritation if dust is inhaled.

Skin contact: May cause mild skin irritation. Sharp pointed tip may puncture or pierce skin.

Eye contact: May cause eye irritation. Particles can cause corneal abrasion.

Information on toxicological effects

Acute toxicity: Not expected to be acutely toxic.



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Skin corrosion/irritation: May cause mild skin irritation. Sharp pointed tip may puncture or pierce skin.

Eye damage/eye irritation: Particles can cause corneal abrasion.

Respiratory sensitization: Not applicable.

Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available

Carcinogenicity: This product is not a carcinogen. This product may contain small amounts of compounds which are listed carcinogens; these compounds are bound in the product and exposure to these compounds is highly unlikely during normal product use. Exposure to these compounds is possible only if the product is ground or cut, exposure to oxides of component metals is possible if product is welded or exposed to excessive heat. Ensure good work practice and use appropriate personal protective equipment as needed.

Reproductive toxicity: No data available.

Aspiration hazard: Not applicable.

Specific target organ toxicity:

- a. **Single exposure** Inhalation of dust may cause respiratory irritation.
- b. **Repeated exposure** May cause damage to organs (lung) through prolonged or repeated exposure (inhalation of dust).

Further information: Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product is not classified as environmentally hazardous.

Persistence and degradability: Not applicable.

Bioaccumulative potential: Not applicable.

Mobility in soil: Not applicable.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption) are expected from this product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal of Substance: Dispose of contents/container in accordance with local/regional/national/international regulations. Steel scrap should be recycled whenever possible.

14. TRANSPORTATION INFORMATION

DOT: Not regulated as a hazardous material by DOT.

IATA: Not regulated as a dangerous good.

IMDG: Not regulated as a dangerous good.

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.



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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not Applicable

15. REGULATORY INFORMATION

US federal regulations: This product is considered an article as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1000

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4): Not regulated.

SARA 302 Extremely hazardous substance: No

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting): Manganese and Zinc are subject to SARA 313 reporting requirements.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories: Immediate Hazard No

Delayed Hazard No

Fire Hazard No

Pressure Hazard No

Reactivity Hazard No

US. California Proposition 65: Components of this article are on the Prop 65 List of Chemicals known to cause cancer or reproductive harm. The nature of this product makes exposure to these chemicals very unlikely. **WARNING:** This product contains a chemical listed by the State of California as known to cause cancer, birth defects, or reproductive harm.

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

16. OTHER INFORMATION

Date Prepared or Revised: October 2015

Supersedes: May 2011

This Safety Data Sheet (SDS) is prepared by Triangle Fastener Corporation in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.