Mechanical Anchors
SAFETY DATA SHEET

1. Identification

Product Identification

Product Identifier: **Simpson Strong-Tie® Mechanical Anchors**
Recommended Use: Mechanical anchors for use with concrete, masonry, and other solid, base materials.
Use Restrictions: Tampering with product can compromise the integrity of the product and create health hazards.

Company Identification

Company: Simpson Strong-Tie Company Inc.
Address: 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
Phone: 1-800-999-5099
Website: www.strongtie.com
Emergency: 1-800-535-5053 (US/Canada)
1-352-323-3500 (International)

For most current SDS, please visit our website at **www.strongtie.com/sds**

2. Hazard Identification

General Information

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this product is considered an article and does not require an SDS. Although these products are not subject to the OSHA Standard or GHS labeling elements, Simpson Strong-Tie 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, this product is considered to present a low hazard. Under normal use conditions, this product is 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.

GHS Classification

Under normal conditions, this product is not expected to pose any health or safety hazards and does not meet the criteria for GHS Classification. However, processes associated with this product (welding, sawing, grinding, brazing, abrasive blasting) may result in the formation of dust/particles that pose health hazards. Improper use of mechanical anchors may result in safety hazards. Ensure that good work practices and the necessary precautionary measures are taken to maintain safe use of the product.

Hazards Not Otherwise Classified (HNOC)

Possible safety hazards associated with processing dust potentially created during customer use of this product.

Physical Hazards:	Not Classified		
Health Hazards:	Skin Corrosion/Irritation	Category 3	H316: Causes mild skin irritation
	Serious Eye Damage/Irritation	Category 2	H319: Causes serious eye irritation
	Sensitization, Skin	Category 1	H317: May cause an allergic skin reaction
	STOT, Single Exposure	Category 3	H335: May cause respiratory irritation
	STOT, Repeated Exposure	Category 2	H373: May cause damage to organs (lungs)
Environmental Hazards:	Not Classified.		

Main Symptoms: Irritation to the eyes and skin. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision. May cause rash/allergic reaction to the skin. May cause shortness of breath or other respiratory distress/irritation. Long term exposure may cause chronic effects.

Exclamation Point **Chronic Health**

Contains: Metals, Ferrous and non-ferrous plating
Signal Word: **WARNING!**
Precautionary Statements:
Prevention: P102: Keep out of reach of children.
P103: Read label before use.

	P261:	Avoid breathing dust.
	P264:	Wash hands thoroughly after handling.
	P271:	Use only outdoors or in a well-ventilated area.
	P272:	Contaminated clothing should not be allowed out of the workplace.
	P280:	Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P333+P313:	If skin irritation or rash occurs: Get medical advice/attention.
	P363:	Wash contaminated clothing before reuse.
	P304+340:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
	P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313:	If eye irritation persists: Get medical advice/attention.
	P314:	Get medical advice/attention if you feel unwell.
Storage:	P420:	Store away from incompatible materials.
Disposal:	P501:	Dispose of contents/container in accordance with local/regional regulations.

Supplemental Label Information: None known.

3. Composition Information

Composition

This product is composed of various metals, and may have ferrous or non-ferrous plating.

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. 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. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact:	If experiencing eye irritation due to dust, flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If you experience redness, burning, blurred vision, or swelling, **consult a physician.**
Skin Contact:	If experiencing skin irritation, wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation occurs **consult a physician.**
Ingestion:	Rinse mouth immediately. Do not induce vomiting. **Consult a physician.**
Inhalation:	Remove 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. Symptoms include itching, burning, redness, tearing, and blurred vision; discomfort in the chest, shortness of breath, coughing.

5. Fire-Fighting Measures

Suitable Extinguishing Media:	Mechanical Anchors do not pose a fire hazard. In event of a fire, choose extinguishing media appropriate for packaging or surrounding material.
Additional Information:	Customer use can possibly result in the formation of explosive air-dust mixtures; avoid creating dust.
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. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Wear appropriate personal protection equipment for Mechanical Anchor use.

Clean-Up Methods

Solid material does not pose a spill hazard. Avoid processes that result in the creation of dust. In the event of dust creation, avoid dry sweeping. Use water spraying/flushing or ventilated or HEPA filtered vacuum cleaning system. If not possible, gently moisten dust before collection with shovel or broom. Dispose of in closed containers.

Environmental Precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Handling

Wear appropriate personal protective equipment. Avoid generating dust. If grinding or cutting, use work methods which minimize dust production. Avoid inhalation of dust. Ensure adequate ventilation. When using, do not eat, drink, or smoke. Wash hands thoroughly after handling. Use good housekeeping, and observe good industrial hygiene practices. To obtain optimal performance from Simpson Strong-Tie products, the products must be properly installed and used in accordance with the installation instructions and design limits provided by Simpson Strong-Tie.

Storage

Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure:	Wear appropriate personal protective equipment. Protective coatings are used on some mechanical anchors. 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.
Hand Protection:	Gloves recommended.
Skin and Body Protection:	Wear long sleeve shirt/long pants and other clothing as required to minimize contact. In case of dust production, wear dust-proof clothing.
Respirator Protection:	Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.
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

Use outdoors or ensure good ventilation when working indoors. Provide eyewash station and emergency shower.

Exposure Limits

No exposure limits noted for ingredients.

9. Physical and Chemical Properties

Physical State:	Solid	**Freezing/Melting Point:**	2600-2700°F (1426-1482°C)
Form:	Solid	**Boiling Point:**	N/A
Color:	Gray/Various 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

10. Stability and Reactivity

Reactivity:	Stable and non-reactive under normal conditions of use and storage.
Chemical Stability:	Stable and non-reactive under normal conditions of use and storage.
Condition to Avoid:	None known.
Substances to Avoid:	Strong oxidizers. Strong acids and bases.
Hazardous Reactions:	Hazardous polymerization will not occur.

Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, other organic compounds. Thermal oxidative decomposition of galvanized steel products can produce fumes containing oxides of zinc, iron, manganese, as well as other elements.

11. Toxicological Information

Likely Routes of Exposure

Ingestion: Do not place anchors in mouth. Not expected to be an ingestion hazard.
Inhalation: May cause respiratory tract irritation if process dust is inhaled.
Skin contact: Sharp edges of anchors may cause abrasions or cuts if not handled properly. May cause mild skin irritation or sensitization.
Eye contact: May cause eye irritation. Particles resulting from processing can cause corneal abrasion.
Symptoms: Irritant effects. Symptoms include itching, burning, redness, tearing, swelling, and blurred vision.

Information on Toxicological Effects

Acute Effects

Toxicity: Not expected to be acutely toxic.
Skin corrosion/irritation: May cause mild skin irritation. Sharp edges of anchors may cause abrasions or cuts if not handled properly.
Eye damage/eye irritation: May cause serious eye irritation.
Respiratory sensitization: Not a respiratory sensitizer.
Skin sensitization: May cause sensitization by skin contact.
Aspiration hazard: Not applicable.
Specific target organ toxicity
Single exposure: May cause respiratory tract irritation.

Chronic Effects

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 to control exposure.
Reproductive toxicity: No data available.
Specific target organ toxicity
Repeated exposure: May cause damage to organs (lungs) 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 or processing dust generated.

12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. This material is not classified as environmentally hazardous. Large or frequent spills can have a harmful or damaging effect on the environment, but is unlikely due to the nature of the product.

Supporting Data

Persistence and degradability: Not readily biodegradable.
Bioaccumulative potential: Not expected to bioaccumulate.
Mobility in soil: Not applicable.

Other Adverse Effects

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

13. Disposal Considerations

Waste Disposal of Substance: Do not allow material into sewers/water supplies. Do not contaminate ponds, waterways or ditches. Dispose of contents/container in accordance with local/regional/national/international regulations. Steel scrap should be recycled whenever possible.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be disposed of in accordance with local/regional/national/international regulations.

14. Transportation Information

DOT: Mechanical Anchors are not regulated for transport.

IMDG/IATA: Mechanical Anchors are not regulated for transport.

Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is an "Article" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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 listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories: Immediate	Delayed	Fire	Pressure	Reactivity
No	No	No	No	No

SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: No
SARA 313 (TRI reporting):

Chemical Name	CAS Number
Zinc	7440-66-6
Manganese	7439-96-5

California Proposition 65:
WARNING: This product can expose you to chemicals which are known to the State of California to cause cancer, reproductive harm, or other birth defects. For more information, go to www.P65Warnings.ca.gov.
***The nature of this product makes exposure to these chemicals very unlikely.

Canada

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

International

International Inventories

Canada	All components of this product are included on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
United States & Puerto Rico	All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.

16. Other Information

Date Prepared or Revised: May 2020
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Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR:	Hazardous Product Regulations (Canada)
DOT:	Department of Transportation (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HEPA:	High-Efficiency Particulate Air
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
OSHA:	Occupational Safety and Health Administration (U.S.)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Disclaimer

Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. 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.

Internal

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