

Galvanized Double Twisted Wire Mesh Products

PRODUCT NAME : Galvanized and PVC Coated Double Twisted Wire mesh Products, Gabions, Gabion Mats, Reno Mattresses, Sack Gabions, Green Gabion, Rolled Mesh, Terramesh System, Green Terramesh System, Terrawall and Envirolog

1. Name of Company and Products:

Maccaferri Inc.
10303 Governor Lane Boulevard
Williamsport, MD 21795
301-223-6910

2. Composition / Information on Ingredients

Chemical composition: iron, zinc, manganese, nickel, lead
Information on Ingredients: iron, chromium dust, manganese dust or fumes, nickel, copper, silicon inert dusts, lubricant/oils

| Denomination of substance | Conc. % | Number CAS | Number EINECS | Classification Symbol and "R" Phrases |
|------------------------------------|---------|------------|---------------|-------------------------------------------------------------------------------|
| di-(2-ethylhexyl) phthalate (DEHP) | ≥ 0.5 | 117-81-7 | 204-211-0 | T-toxic R60 may reduce fertility R61 may cause harm to the unborn child |

3. Hazards Identification

Potential health effects: Note: Steel products in their solid state under normal conditions, do not present an inhalation, ingestion or skin hazard. However, operations resulting in fume or particulate formation such as welding, sawing, brazing, grinding, and machining may present health hazards. Molten steel also is hazardous.

Acute eye: Dusts or particulates may cause mechanical irritation including pain, tearing, and redness. Scratching of the cornea can occur if eye is rubbed. Fumes may be irritating. Contact with the heated material may cause thermal burns.

Acute skin: Dusts or particulates may cause mechanical irritation due to abrasion. Coated steel may cause skin irritation in sensitive individuals. Some components in this product are capable of causing an allergic reaction, possibly resulting in burning, itching, and skin eruptions. Contact with heated material may cause thermal burns.

Acute inhalation: Dusts may cause irritation of the nose, throat, and lungs. Excessive inhalation of metallic fumes and dusts may result in metal fume fever, an influenza-like illness. It is characterized by a sweet or metallic taste in the mouth, accompanied by dryness and irritation of the throat, cough, shortness of breath, pulmonary edema, general malaise, weakness, fatigue, muscle and joint pains, blurred vision, fever and chills. Typical symptoms last from 12 to 48 hours.

Acute ingestion: Not expected to be acutely toxic via ingestion based on the physical and chemical properties of the product. Swallowing of excessive amounts of the dust may cause irritation, nausea, and diarrhea.

4. First aid

Eye Exposure: Flush eyes with plenty of water or saline for at least 15 minutes. SEEK MEDICAL ATTENTION.

Skin Exposure: Wash skin with soap and water for at least 15 minutes. If irritation develops, SEEK MEDICAL ATTENTION.

Inhalation: Move to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, give oxygen. SEEK MEDICAL ATTENTION.

Ingestion: Never give fluids or induce vomiting if the victim is unconscious or having convulsions. SEEK MEDICAL ATTENTION.

5. Fire-Fighting Measures

Flammable properties:

This product does not present fire or explosion hazards as shipped. Small chips, turnings, dust, and fines from processing may be readily ignitable. Flammable properties: This product does not present fire or explosion hazards as shipped. Small chips, turnings, dust, and fines from processing may be readily ignitable. PVC is considered self extinguishing (it burns only in presence of a flame); although it is necessary to keep it out from hot sources, sparks and open flames. High plasticizer quantity can compromise that characteristic.

Fire/Explosion:

May be potential hazard under the following conditions:
Dust or fines dispersed in the air can be explosive. Even a minor dust cloud can explode violently.
Chips, dust or fines in contact with water can generate flammable/explosive hydrogen gas. Hydrogen gas could present an explosion hazard in confined or poorly ventilated spaces. Fines and dust in contact with certain metal oxides (e.g., rust). Molten metal in contact with water/moisture or other metal oxides (e.g., rust). Moisture entrapped by molten metal can be explosive.

Extinguishing media:

Use Class D extinguishing agents on dusts, fines, or molten metal. Use coarse water spray on chips and turnings.

Special fire fighting procedures:

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus, and full protective clothing when appropriate. Avoid breathing metal oxide fumes, which may cause metal fume fever.

Unusual fire and explosive hazards:

When heated beyond melting point, metal vapor burns in the air with a bright greenish-yellow flame to produce zinc oxide fumes.

6. Accidental Release Measures

Cleanup and disposal of spill:

Avoid inhalation, eye, or skin contact of dusts by using appropriate precautions outlined in this MSDA. Fine turnings and small chips should be swept or vacuumed and placed into appropriate disposable containers. Keep fine dust or powder away from sources of ignition. Scrap should be reclaimed for recycling. Prevent materials from entering drains, sewers, or waterways. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations

7. Handling and storage

Handling and storage:

Product should be kept dry. Avoid generating dust. Avoid contact with sharp edges or heated metal. PACKAGES OF THIS MATERIAL MAY CONTAIN EXTREME INTERNAL STRESSES AND STORED MECHANICAL ENERGY. USE STANDARD INDUSTRY PRACTICES AND/OR CONSULT YOUR COMPANY'S SAFETY DEPARTMENT FOR PROPER PROCEDURES FOR HANDLING, OPENING, AND CUTTING.

8. Exposure Controls / Personal Protection

Eye protection:

Wear safety glasses/goggles to avoid eye contact.

Skin protection:

The individual protections depending on the type and entity of the possible exposure and working conditions; during processing, if necessary, using masks for respiratory protection, gloves for handling the hot product, goggles and adequate work clothes.

Exposure limit values:

total dust 10 mg/mc TLV-TWA (ACGIH)
respirable dust 3 mg/mc TLV-TWA (ACGIH)
di-(2-ethylhexyl) phthalate 5 mg/mc TLV-TWA (ACGIH)

Occupational exposure controls:

Work in well ventilated areas and/or provide the transforming machines with located suctions (see heading 7). The control of occupational exposure is done by workplace and personal monitoring and medical surveillance as defined from current regulations (we recommend to do a medical examination at least annually).

Environmental exposure controls:

Work to prevent releases into the atmosphere and water.

Specific hygiene measures: During the work to observe the normal hygiene measures (not eating, no drinking, no smoking).

9. Physical and Chemical Properties

Physical state: solid
 Appearance: gray metal
 Boiling point: n/a
 Solubility in water: negligible
 pH level: n/a
 Melting point: 2800°F / 621.37176°F lead
 Vapor density: n/a
 Odor: none

| | |
|--------------------------------------------------|--------------------------------------------|
| Physical state: cylindrical granules diam. 3 mm. | Autoflammability: n.d. |
| Color: | Explosive properties: n.a. |
| Odor : odorless | Oxidizing properties: n.a. |
| pH aqueous solution (conc.): n.a. | Vapor pressure: n.a. |
| Boiling point / boiling range: n.a. | Apparent density: 0,6 - 0,8 g/cm3 |
| Melting point / melting range: n.a. | Solubility in water: practically insoluble |
| Flash point: n.a. | Octanol/water partition coefficient: n.a. |
| Flammability (GLOW WIRE): > 350 °C | Hardness: Shore A |

10. Stability and reactivity

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

Conditions to avoid: Steel at temperatures above the melting point may liberate fumes containing oxides of iron and alloying elements. Avoid generation of airborne fume.

Hazardous Polymerization: Will not occur.

Incompatibility/materials to avoid: Reacts with strong acids to form hydrogen gas. Hydrogen peroxide will react violently in contact with lead. (Water reacts violently with molten metals.)

Hazardous decomposition products: Fumes and certain noxious gases, such as CO, may be produced from welding or burning operations. Lead oxide fumes can result if temperatures exceed the melting point for lead, 621.37°F.

11. Toxicological information

The primary component of this product is iron. Long-term exposure to iron dusts or fumes can result in a condition called siderosis, which is considered a benign pneumoconiosis. Breathing fumes or dusts of this product may result in metal fume fever, which is an illness produced by inhaling metal oxides. For PVC taking into account the physical properties of the product (see heading 9) particularly the granules size, inhalation and/or skin absorption damages are not assumable. In case of accidental or voluntary ingestion of product, documents state how intoxication risk is inexistent. During processing, under certain operating conditions, prolonged and/or repeated inhalation of dust or vapors/aerosols that arise from heating of the product may cause harmful effects associated to the presence of phthalates (may impair fertility and may cause harm to the unborn child).

12. Ecological information

Use the preparation according to good working practices, avoiding the product release in the environment. Product is not biodegradable, it is not toxic for sea environment and does not produce any effect in the process of effluents handling.

13. Waste disposal

Disposal instructions: Reuse or recycle material whenever possible. Material may be disposed of at an industrial landfill.

14. Transport information

| | | |
|----------------|--------------|----------------|
| Land transport | (RID/ADR): | no regulations |
| Sea freight | (IMO/IMDG): | no regulations |
| Air freight | (ICAO/IATA): | no regulations |

15. Present regulations

USS Federal Regulations.

Information on the label. Preparation is not labeled according to Directive 1999/45/CE, as it not considered dangerous in the form it is put on the market. However classification is based on the following elements:

| | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical Name | Mixture of PVC and "di-(2-ethylhexyl) phthalate" |
| Danger symbol | T |
| Danger indication | Toxic |
| Risk phrases (R) | R60 May impair fertility R61 May cause harm to the unborn child |
| Safety advice (S) | S 53 Avoid exposure-obtain special instructions before use S45 In case of accident or if you feel unwell, seek medical advice immediately |

Indication of specific Community provisions relating to man end environment protection n.a.

16. Other information

Data and information contained in this Safety Data Sheet are based on our available knowledge at the last revision date. No guarantee can be given as to the sufficiency of any safety measures contained in this Safety Data Sheet, nor can it be assumed that other or additional measures may not be required under particular or exceptional circumstances. The user must make sure of the fitness and completeness of the information, according to the specific use he wants to do.

n.d. = not determinate

n.a. = not applicable

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