

1. IDENTIFICATION

Product Name: **PWD00130**
 Typical Use: Thermal Spray Powder
 Manufacturer: Polymet Corporation
 7397 Union Centre Blvd
 West Chester, OH 45014
 (513) 874-3586 from 8 a.m. – 5 p.m., EST

2. HAZARDS IDENTIFICATION

The article is NOT classified as dangerous according to directive 1999/45/EC.
 BYPRODUCTS GENERATED DURING THE THERMAL SPRAY OR WELDING PROCESS ARE CONSIDERED HAZARDOUS.



WARNING



DANGER

HAZARD STATEMENTS:

- May cause cancer by inhalation
- May cause an allergic skin reaction

PRECAUTIONARY STATEMENTS:

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Avoid breathing dust or fume
- Wear protective gloves, protective clothing, eye, and face protection
- Contaminated work clothing should not be allowed out of the workplace
- If exposed or concerned, get medical advice/attention

See Section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	EC No.	Weight %	Classification
Aluminum Oxide	13344-28-1	215-691-6	Bal	H302, H332,
Titanium Dioxide	13463-67-7	236-675-5	<15	Carc. (Cat 2), H351, P201, P281

See Section 15 for the full text of the R and S phrases declared above.

4. FIRST-AID MEASURES

These measures apply primarily to the byproducts produced during thermal spray or welding.

- Inhalation:** Move exposed person to fresh air. Keep the person warm and at rest. If not breathing or if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion:** Wash out mouth with water. Call POISON CONTROL or physician.
- Skin Contact:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Protection of First Aiders: No action shall be taken involving any personal risk or without suitable training.

See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

This section applies primarily to the powder as supplied.

Extinguishing Media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not Suitable: None known

Hazardous Thermal Decomposition Products: May emit toxic fumes

Special Protective Equipment for Fire-Fighters: Fire-fighters should wear appropriate protective equipment and self-contained apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special Protective Precautions for Fire-Fighters: Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection. Direct water stream will scatter and spread flames and, therefore, should not be used.

6. ACCIDENTAL RELEASE MEASURES

These measures apply to the powder as supplied and the byproducts produced during the thermal spray or welding process.

Personal Precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental Precautions: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Methods for Cleaning Up: Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements. Recycle if possible.

7. HANDLING AND STORAGE

This section applies primarily to the powder as supplied.

Handling: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Storage: Keep container tightly closed. Keep container in a cool, well ventilated area.

Packaging Materials

Recommended: Use original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

This section contains information which applies during the welding and thermal spray processes.

Components	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Aluminum Oxide	15 total dust, 5 respirable	1
Titanium Dioxide	15 total dust	2.5 dust, 0.2 fume

Monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure Controls

Occupational Exposure: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand Protection: Gloves should be worn to minimize contact. During the thermal spray process, heat insulated gloves are recommended.

Potential Chronic Health Effects

Titanium Dioxide Carcinogen Category 2;
 Carcinogenicity: Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.
 Mutagenicity: No known significant effects or critical hazards.
 Reproductive Toxicity: No known significant effects or critical hazards.

Over-Exposure Signs / Symptoms

Target Organs: Contains material which causes damage to the following organs: blood, kidneys, lungs, upper respiratory tract, skin, central nervous system (CNS), eye lens or cornea.

12. ECOLOGICAL INFORMATION

This information applies to the powder as supplied.

Ecotoxicity Data: No known significant effects or critical hazards.

Other Adverse Effects: No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

This information applies to the powder as supplied and the byproducts produced during the thermal spray process.

Methods of Disposal: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal of Packaging: Contaminated packaging material should be disposed of in the same manner as the product itself. Non-contaminated or clean packaging material should be reused for the same product, treated as domestic waste or material for recycling.

Hazardous Waste: The classification of the product and byproducts may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

This information applies to the powder as supplied.

International Transport Regulations

Regulatory Information	UN Number	Proper Shipping Name	Class	Packing Group	Label	Additional Information
ADR/RID Class	Not Regulated					
ADNR Class	Not Regulated					
IMDG Class	Not Regulated					
IATA Class	Not Regulated					

15. REGULATORY INFORMATION

This information applies to the powder as supplied.

SARA Section 313 Supplier Notification:

The product covered by this MSDS may contain the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know act of 1986 and of 40 DFR 372: Chromium, Copper, Manganese and Nickel. Refer to Section 3 of this MSDS for percentage of each element by weight and CAS number.



Hazard Symbol: Harmful

Risk Phrases:
 H302 – Harmful if swallowed
 H317 – May cause allergic skin reaction
 H332 – Harmful if inhaled
 H373 – May cause damage to organs through prolonged or repeated exposure through inhalation
 H350 – May cause cancer
 H351 – Suspected of causing cancer
 P201 – Obtain special instructions before use
 P202 – Do not handle until all safety precautions have been read and understood
 P261 – Avoid breathing mist, vapors, or spray

Safety Phrases: P270 – Do not eat, drink, or smoke when using the product
P281 – Use personal protective equipment
S22 – Do not breathe dust
S24 – Avoid contact with skin
S37 – Wear suitable protective gloves

Contains: Titanium Dioxide

Product Use: Classification and labeling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.

Industrial Applications: Used by spraying.

16. OTHER INFORMATION

This information applies to the powder as supplied and the byproducts produced during the thermal spray or welding process.

Full Text of Classifications: Carc. Cat. 1 – Carcinogen Category 1
Carc. Cat. 2 – Carcinogen Category 2

History

Date of Issue: 03/10/2023
Revision #: 1
Date of Revision: 11/20/2023

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, the above named supplier does not assume liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.