

1. Product Identification/Material Identification

Black Phosphate, Electroplated Zinc (White) Coated Screws

1.1 Article

Description	Material (Shank)	Coating Type	Compliance Mark
Drywall Screw	Carbon Steel	Black Phosphate	CE
Drywall Screw	Carbon Steel	White Zinc Plating	CE

1.2 Company/ Supplier / Brand

Alpha Building Systems, Finmere Park, Orton Southgate, Peterborough PE2 6YG

2. Composition / Information on Components

Coating Type	Key Components	Notes
Phosphate	Iron/Zinc/Manganese Phosphates	May include nylon collation
Zinc Plating	Zinc (\pm Chromate Passivation)	Non-hexavalen chromium used

3. Hazards Identification (GHS Classification)

GHS Symbols: ⚠ (Warning) | Signal Word: Warning

Hazard Statements:

H315: Causes skin irritation (if chromium present).

H319: Causes serious eye irritation.

H335: May cause respiratory irritation (metal dust/fumes).

H290: May be corrosive to metals (under extreme conditions).

Physical Hazards:

Sharp edges/points (EN ISO 12100: Risk Level B).

Mechanical injury risk during handling.

Health Hazards:

Metal Dust/Fumes: Inhalation may cause metal fume fever (acute) or chronic lung impairment (HSE EH40/2005).

4. First Aid Measures

Inhalation: Move to fresh air. If symptoms persist, seek medical advice (HSE HSG245).

Skin Contact: Wash with soap/water. For chromium-coated variants, use pH-neutral cleanser.

Eye Contact: Rinse with water for 15 mins. Consult ophthalmologist if irritation persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

5. Fire Fighting Measures

Non-flammable (Tested per ISO 1182:2010).

Use extinguishers suitable for surrounding materials (e.g., CO₂ for electrical fires).

6. Accidental Release Measures

Collect any waste screws manually or using appropriate mechanical methods.
Sweep up debris and dispose of according to local waste regulations.
Ensure proper housekeeping to prevent trip hazards.

7. Handling & Storage

PPE Requirements:

Gloves: Cut-resistant (EN 388).
Eye Protection: ANSI Z87.1-compliant goggles.
Respiratory Protection: FFP3 mask if dust/fume levels exceed OELs.
Storage: Stack cartons ≤1.5m height. Keep dry to prevent corrosion (ISO 9001:2015).

8. Physical and Chemical Properties

The material is classified as non-combustible under standard conditions.

9. Exposure Controls / PPE

UK Occupational Exposure Limits (OELs):

Zinc Oxide (ZnO): 8-hr TWA 5 mg/m³ (HSE EH40).
Iron Oxide (FeO): 8-hr TWA 10 mg/m³.
Engineering Controls: Local exhaust ventilation (LEV) mandatory for grinding/welding.

10. Stability and Reactivity

The substance remains stable under normal ambient conditions. However, exposure to elevated temperatures (e.g., during welding, flame cutting, or thermal processing) may result in the emission of fumes containing metal oxides and/or decomposition byproducts.

11. Toxicological Information

Exposure Pathways:

Dust Generation: Mechanical operations such as dry grinding, machining, or abrasive cutting may produce airborne particulates composed of base metal and coating constituents.

Fume Emission:

Thermal degradation (e.g., welding, flame cutting) releases fumes containing zinc oxide (ZnO), iron oxide (FeO/Fe₂O₃), and potential decomposition products from protective coatings (if present).

Health Hazards:

Acute Effects: Inhalation of fumes may induce metal fume fever, a transient, self-limiting condition characterised by flu-like symptoms (e.g., chills, fever, fatigue).

Chronic Effects: Prolonged inhalation of airborne particulates or fumes at excessive concentrations may contribute to long-term respiratory impairment, particularly affecting pulmonary function.

Risk Mitigation:

Implement engineering controls (e.g., local exhaust ventilation) to reduce airborne exposure. Use appropriate personal protective equipment (PPE), including respirators rated for metal fumes and dust.

Notes: Maintain occupational exposure limits (OELs) for zinc, iron, and other relevant particulates as per regional regulatory standards. Conduct regular air monitoring in high-risk operational areas.

12. Ecological Information

No adverse ecological effects have been identified under standard use conditions. The product does not exhibit toxicity to aquatic or terrestrial ecosystems based on available data.

13. Disposal Considerations

Waste Management:

Prioritise recycling where feasible. Recycle metal waste per UK Waste Regulations 2011. If disposal is necessary, discard only at licensed waste disposal facilities compliant with local, national, or international environmental regulations.

14. Transport Information

The product is not classified as hazardous under international transport regulations (e.g., UN, IMDG, IATA). No special handling, labelling, or packaging requirements apply.

15. Regulatory Information

No specific regulatory classifications or restrictions are currently applicable. Users are advised to verify compliance with regional legislation prior to use.

16. Other Information

Conduct a site-specific risk assessment prior to deployment to identify and mitigate potential hazards.

User Responsibility: This document does not substitute for workplace-specific risk assessments mandated by occupational safety protocols.

Data Sources: Compiled using safety information provided by material suppliers and distributors, validated as of the issuance date.

Limitations: Reflects the current understanding of product safety and health implications. Does not constitute a warranty of product performance or properties.

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