



MATERIAL SAFETY DATA SHEET (MSDS)

Oxidized Polyethylene Wax (OPE Wax)

SECTION 1: Identification

Item	Information
Product Name	Oxidized Polyethylene Wax
Synonyms	Oxidized PE Wax, OPE Wax
Chemical Family	Oxidized Polyolefin
Recommended Use	Industrial lubricant, release agent, processing additive
Applications	PVC, plastics, coatings, printing inks, wax emulsions
Supplier and Exporter	ATDM
Emergency Telephone	To be provided by the responsible supplier

SECTION 2: Hazards Identification

GHS Classification: Must be determined for the specific supplied grade. Some commercial solid oxidized polyethylene wax products are not classified as hazardous.

Potential Hazards:

- Fine dust may cause mechanical eye irritation.
- Excessive dust exposure may cause respiratory discomfort.
- Molten wax may cause severe thermal burns.
- Fine airborne dust may create a combustible dust hazard.
- Spilled solid material may create slippery surfaces.

Hazard Pictograms: To be established from the grade-specific classification.

Precautionary Measures: Avoid dust generation, prevent contact with hot material, use appropriate ventilation, and control ignition sources.



SECTION 3: Composition / Information on Ingredients

Component	Information
Chemical Description	Oxidized Polyethylene-Based Polymer
Primary Component	Oxidized Polyethylene Wax
CAS Number	Must be verified for the supplied product
Concentration	Grade-specific
Additives	Dependent on commercial formulation

Oxidized polyethylene wax contains oxygen-functional groups introduced through oxidation of polyethylene wax.

SECTION 4: First Aid Measures

Eye Contact: Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if possible. Seek medical advice if irritation persists.

Skin Contact: Wash with soap and water. If molten material contacts skin, cool immediately with running water. Do not forcibly remove solidified wax. Obtain medical assistance.

Inhalation: Move the affected person to fresh air. Seek medical attention if breathing difficulty or irritation continues.

Ingestion: Rinse the mouth. Do not induce vomiting unless directed by medical personnel. Seek medical advice if symptoms develop.

Most Important Symptoms: Mechanical irritation from particles, respiratory discomfort from dust, and thermal injury from hot wax.

SECTION 5: Firefighting Measures

Suitable Extinguishing Media:

- Water spray or mist
- Dry chemical powder
- Carbon dioxide
- Appropriate firefighting foam



Specific Hazards: Combustion may produce carbon monoxide, carbon dioxide, smoke, and irritating decomposition products. Fine dust dispersed in air may present a dust explosion risk.

Firefighting Equipment: Wear suitable protective clothing and self-contained breathing apparatus.

Additional Information: Avoid high-pressure water jets that could disperse dust or molten material.

SECTION 6: Accidental Release Measures

Personal Precautions: Avoid generating dust. Remove ignition sources and use appropriate personal protective equipment.

Environmental Precautions: Prevent material from entering drains, surface water, or soil.

Cleanup Procedures:

1. Restrict unnecessary access to the affected area.
2. Collect larger quantities mechanically.
3. Use suitable dust-rated vacuum equipment where necessary.
4. Avoid compressed air and uncontrolled dry sweeping.
5. Transfer collected material to appropriate containers.

SECTION 7: Handling and Storage

Safe Handling:

- Provide adequate ventilation.
- Minimize airborne dust.
- Avoid contact with molten material.
- Control static electricity where necessary.
- Keep away from open flames and excessive heat.
- Follow good industrial hygiene practices.

Storage Conditions:

- Store in a clean, dry environment.
- Protect from moisture and contamination.
- Keep away from heat and ignition sources.
- Avoid contact with strong oxidizing agents.
- Keep packaging securely closed.



SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits: No universal product-specific exposure limit is established in this document. Apply relevant national workplace dust exposure limits and any grade-specific limits identified in the official SDS.

Protection	Recommendation
Eye Protection	Safety glasses or goggles
Hand Protection	Suitable protective gloves
Respiratory Protection	Appropriate particulate respirator when required by exposure assessment
Skin Protection	Industrial protective clothing
Thermal Protection	Heat-resistant gloves and face protection when handling molten wax

Engineering Controls: Use appropriate ventilation and dust extraction systems.

SECTION 9: Physical and Chemical Properties

Property	General Information
Physical State	Solid
Appearance	White to yellowish
Form	Powder, flakes, granules, or pastilles
Odor	Generally mild
Melting / Softening Point	Grade-dependent
Density	Grade-dependent
Melt Viscosity	Grade-dependent
Acid Value	Grade-dependent
Water Solubility	Generally insoluble



Flash Point	Grade-specific data required
Autoignition Temperature	Grade-specific data required
Decomposition Temperature	Grade-specific data required
pH	Not applicable to bulk solid
Vapor Pressure	Expected to be low at ambient conditions
Flammability	Combustible under appropriate ignition conditions
Explosive Characteristics	Fine dispersed dust may create an explosion hazard

SECTION 10: Stability and Reactivity

Reactivity: No unusual reactivity is generally expected under recommended handling conditions.

Chemical Stability: Expected to remain stable under suitable storage conditions.

Hazardous Reactions: Dust ignition or thermal degradation may occur under unfavorable conditions.

Conditions to Avoid: Excessive heat, flames, ignition sources, dust accumulation, and uncontrolled overheating.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, smoke, and other decomposition products.

SECTION 11: Toxicological Information

Acute Toxicity: Grade-specific numerical data are not available.

Skin Irritation: Solid particles may cause mechanical irritation. Molten wax may cause thermal burns.

Eye Irritation: Dust may cause mechanical irritation.

Respiratory Effects: Excessive airborne dust may cause coughing or discomfort.

Skin Sensitization: Insufficient grade-specific information.



Carcinogenicity: Classification must be verified using the actual product composition and applicable regulatory data.

Reproductive Toxicity: Insufficient grade-specific information.

Chronic Exposure: Avoid prolonged uncontrolled exposure to airborne particulates.

SECTION 12: Ecological Information

Ecotoxicity: Grade-specific test data are not available.

Persistence and Degradability: Polyethylene-based waxes generally resist rapid biodegradation.

Bioaccumulation: Insufficient product-specific data.

Mobility in Soil: Solid oxidized polyethylene wax is generally poorly soluble in water.

Environmental Precautions: Prevent uncontrolled release into waterways, drainage systems, and soil.

SECTION 13: Disposal Considerations

Dispose of material according to applicable local and national regulations.

Recommended Practices:

- Collect waste in suitable containers.
- Consider material recovery or recycling where feasible.
- Avoid discharge into drains.
- Use authorized waste-management services.
- Dispose of contaminated packaging according to applicable regulations.

Waste classification depends on the actual composition and contamination status.



SECTION 14: Transport Information

Solid oxidized polyethylene wax products that are not classified as hazardous are commonly transported as non-dangerous goods. Confirm the actual shipment classification before transportation.

Transport Information	Status
UN Number	Grade-specific verification required
Proper Shipping Name	Depends on actual classification
Transport Hazard Class	Grade-specific verification required
Packing Group	Depends on classification
ADR/RID	Verify with official SDS
IMDG	Verify with official SDS
IATA	Verify with official SDS
Marine Pollutant	Product-specific determination required

Protect packages from moisture, excessive heat, and physical damage.

SECTION 15: Regulatory Information

Regulatory requirements depend on the exact product composition and destination market.

Applicable frameworks may include:

- REACH Regulation (EC) No. 1907/2006
- CLP Regulation (EC) No. 1272/2008
- OSHA Hazard Communication Standard, 29 CFR 1910.1200
- Applicable national chemical inventory requirements
- Local chemical safety and environmental regulations

The responsible supplier must verify current classification, labeling, and registration obligations.



SECTION 16: Other Information

Product: Oxidized Polyethylene Wax

Abbreviation: OPE Wax

Supplier and Exporter: ATDM