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# Oxidized PE Wax – Material Safety Data Sheet (MSDS)

Safety Data Sheet (SDS) | Oxidized Polyethylene Wax | OPE Wax

Document status: Technical reference draft — requires verification against the actual supplied grade before use as an official, regulatory-compliant SDS.

## Section 1: Identification of the Substance and Supplier

| Item | Description |
|---|---|
| Product name | Oxidized PE Wax |
| Chemical name | Oxidized Polyethylene Wax |
| Synonyms | OPE Wax, Oxidized Polyethylene |
| Chemical family | Oxidized polyolefin polymer |
| CAS number | Grade-dependent; 68441-17-8 appears in some supplier SDS documents |
| Physical form | Powder, flakes, or granules |
| Recommended use | Industrial lubricant, processing additive, dispersing agent, surface modifier |
| Supplier | Basekim |
| Website | www.basekim.com |
| Emergency telephone | To be provided by the responsible supplier |

Identified applications: PVC processing, polymer compounding, printing inks, coatings, wax emulsions, and industrial surface treatments.

## Section 2: Hazards Identification

GHS classification: Representative solid oxidized polyethylene wax grades are not classified as hazardous under applicable GHS/CLP criteria. The actual supplied grade requires independent classification verification.

Potential hazards:

- Fine particles may cause mechanical irritation to the eyes or respiratory tract.
- Dust accumulation may create a combustible dust hazard.

- Contact with molten wax can cause thermal burns.
- Heated material may release irritating decomposition products.
- Spilled granules or powder can create slipping hazards.

GHS label elements:

| Element | Typical status for referenced solid grades |
|---|---|
| Hazard pictograms | None required |
| Signal word | None required |
| Hazard statements | None assigned |
| Precautionary measures | Apply industrial dust, heat, and fire controls |

Avoid generating airborne dust during handling or transportation.

## Section 3: Composition and Information on Ingredients

| Component | Concentration |
|---|---|
| Oxidized Polyethylene Wax | Principal component; actual purity to be confirmed |
| Additives or other constituents | To be confirmed for the supplied grade |

Chemical description: Oxidized polyethylene-based polymer containing oxygen-functional groups formed during controlled oxidation.

CAS identification: Must match the manufacturer's official product identification. Do not assign a CAS number solely from the generic product name.

## Section 4: First Aid Measures

Inhalation: Move the affected person into fresh air. If coughing, breathing difficulty, or respiratory irritation persists, seek medical attention.

Skin contact: Wash affected skin with soap and water. For contact with molten wax, immediately cool the affected area with running water. Do not forcibly remove solidified wax attached to the skin. Obtain medical assistance.

Eye contact: Carefully rinse the eyes with clean water for at least 15 minutes. Remove contact lenses if possible. Seek medical attention if irritation persists.

Ingestion: Rinse the mouth with water. Do not induce vomiting unless medical personnel advise it. Seek medical attention if symptoms occur or a significant amount is swallowed.

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Most important symptoms: Possible mechanical irritation from dust, respiratory discomfort, and thermal burns from hot material.

## Section 5: Firefighting Measures

Suitable extinguishing media:

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

Unsuitable extinguishing media: Avoid high-pressure water jets that could scatter combustible dust or molten material.

Specific fire hazards: Oxidized polyethylene wax can burn when exposed to sufficient heat and ignition. Fine airborne dust may form explosive mixtures under certain conditions.

Burning material may generate carbon monoxide, carbon dioxide, smoke, and other irritating decomposition products.

Firefighter protection: Wear self-contained breathing apparatus and appropriate protective firefighting clothing.

Additional precautions: Prevent dust dispersion and cool exposed containers with water spray when safe.

## Section 6: Accidental Release Measures

Personal precautions: Restrict access to the affected area. Avoid unnecessary dust generation and remove potential ignition sources.

Protective equipment: Wear suitable gloves, safety glasses, and respiratory protection when airborne dust exposure warrants it.

Cleanup procedures:

1. Prevent the material from entering drains.
2. Collect larger quantities using suitable industrial equipment.
3. Use an appropriate dust-rated vacuum system where needed.

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4. Avoid dry sweeping or compressed air when they could disperse combustible dust.
5. Transfer collected material into suitable containers.
6. Dispose of contaminated material according to applicable regulations.

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

## Section 7: Handling and Storage

### Safe Handling

Use the product in well-ventilated industrial environments.

Avoid prolonged inhalation of airborne dust and unnecessary contact with eyes or skin.

Control dust accumulation around transfer, mixing, and processing equipment.

When processing molten material, use temperature controls and suitable protection against thermal burns.

### Storage Conditions

- Store in a cool, dry, well-ventilated location.
- Protect packaging from moisture and contamination.
- Keep away from excessive heat and ignition sources.
- Avoid storing near strong oxidizing agents.
- Keep containers securely closed when not in use.
- Follow the manufacturer's recommended storage temperature and shelf life.

## Section 8: Exposure Controls and Personal Protection

Occupational exposure limits: No universal product-specific exposure limit can be established from the generic description. Apply relevant local occupational dust exposure limits and any limits listed in the grade-specific SDS.

Engineering controls: Provide suitable ventilation and localized dust extraction where required. Use appropriate dust-control and explosion-prevention measures.

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Personal protective equipment:

| Protection | Recommended measure |
|---|---|
| Eye protection | Industrial safety glasses |
| Hand protection | Suitable protective gloves |
| Respiratory protection | Appropriate particulate respirator when required by exposure assessment |
| Skin protection | Industrial work clothing |
| Thermal protection | Heat-resistant gloves and face protection for molten material |

Wash hands after handling and before eating or drinking.

## Section 9: Physical and Chemical Properties

The following figures are illustrative commercial ranges, not certified values for a particular Basekim product.

| Property | Typical / Expected Information |
|---|---|
| Physical state | Solid |
| Appearance | White to pale yellow |
| Odor | Mild or nearly odorless |
| Melting behavior / drop point | Approximately 98–137°C, grade-dependent |
| Acid value | Approximately 3–37 mg KOH/g, grade-dependent |
| Density | Approximately 0.92–0.99 g/cm³ at room temperature |
| Water solubility | Generally insoluble |
| Melt viscosity | Depends on grade and measurement temperature |
| Flash point | Grade-specific data required |
| Autoignition temperature | Not established for the unspecified grade |
| pH | Not applicable to the bulk solid |
| Vapor pressure | Expected to be very low under ambient conditions |
| Explosive characteristics | Dispersed fine dust may present a combustible dust hazard |
| Decomposition temperature | Grade-specific data required |

Do not use these broad ranges as guaranteed delivery specifications.

## Section 10: Stability and Reactivity

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

Chemical stability: Stable under normal storage conditions.

Possibility of hazardous reactions: Dangerous reactions are not generally expected during intended use. Dust ignition and thermal degradation may occur under unfavorable conditions.

Conditions to avoid:

- Excessive temperatures
- Open flames and ignition sources
- Dust accumulation
- Uncontrolled overheating
- Contact with incompatible materials

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, and other products generated by thermal degradation or incomplete combustion.

## Section 11: Toxicological Information

Acute toxicity: Insufficient grade-specific information is available to report numerical acute toxicity estimates.

Skin irritation: Solid particles may cause mechanical irritation. Hot molten material causes thermal injury.

Eye irritation: Airborne dust may cause temporary mechanical irritation.

Respiratory effects: Excessive dust exposure may cause coughing or respiratory discomfort.

Skin sensitization: No grade-specific conclusion is available.

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

Reproductive toxicity: Grade-specific data are not available.

Chronic exposure: Avoid repeated uncontrolled exposure to industrial dust.

Absence of detailed toxicological data does not establish that a material is harmless under all conditions.

## Section 12: Ecological Information

Aquatic toxicity: Grade-specific test data are not available.

Persistence and degradability: Polyethylene-based waxes are generally expected to resist rapid biodegradation, although behavior depends on their formulation and environmental conditions.

Bioaccumulative potential: Insufficient product-specific information.

Mobility in soil: Solid material is generally poorly soluble in water.

Other adverse effects: Uncontrolled release may contribute to persistent plastic-based environmental contamination.

Prevent discharge into waterways, wastewater systems, and soil.

## Section 13: Disposal Considerations

Dispose of waste material according to local, national, and applicable international regulations.

Recommended disposal practices:

- Collect unused material in suitable containers.
- Consider recovery or recycling where technically feasible.
- Avoid releasing material into the environment.
- Do not discharge waste into drains.
- Dispose of contaminated packaging through authorized waste-management facilities.

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Waste classification depends on the actual formulation, contamination, and local regulations.

## Section 14: Transport Information

Representative non-hazard-classified solid oxidized polyethylene wax grades are commonly transported as non-dangerous goods. The specific shipment must be checked against its current SDS.

| Transport Information | Status |
|---|---|
| UN number | Generally not assigned for referenced non-dangerous grades |
| UN proper shipping name | Not applicable when unregulated |
| Transport hazard class | Not regulated for referenced grades |
| Packing group | Not applicable when unregulated |
| Environmental hazards | To be confirmed |
| ADR/RID | Verify against actual grade |
| IMDG | Verify against actual grade |
| IATA | Verify against actual grade |

Protect bags and containers against physical damage, excessive heat, and moisture during transportation.

## Section 15: Regulatory Information

Regulatory classification depends on the exact product composition, country of sale, and applicable laws.

Relevant regulatory frameworks may include:

- EU REACH Regulation (EC) No. 1907/2006
- EU CLP Regulation (EC) No. 1272/2008
- US OSHA Hazard Communication Standard, 29 CFR 1910.1200
- Applicable national chemical inventory requirements
- Relevant occupational safety and waste management regulations

The responsible manufacturer or distributor must verify current classification, substance registration or exemption status, labeling requirements, and any country-specific restrictions.

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## Section 16: Other Information

Product: Oxidized PE Wax (Oxidized Polyethylene Wax)

Document type: Material Safety Data Sheet / Safety Data Sheet

Intended use: General industrial safety information for handling, storage, transport, and processing.

Disclaimer: This document provides general technical safety guidance based on representative oxidized polyethylene wax products. It is not a verified manufacturer-issued SDS, and it must not replace the current Safety Data Sheet supplied with a specific grade. The responsible supplier should validate product composition, hazard classification, emergency contacts, measured physical properties, revision date, and regulatory details before issuing an official document.