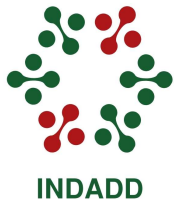


**Championing sustainable innovation in additives,
we empower the paint industry and beyond
to achieve a lasting global impact.**

SOLUTIONS BUILT FOR THE FUTURE

Driving Innovation through Our Product Portfolio

INDADD's advanced product portfolio is designed to address the most demanding industrial challenges. From performance-driven **paint driers** to **custom solutions**, our product offering empowers industries like coatings, construction, and chemical processing with reliability, precision, and sustainability.



About INDADD

Established in 2024, INDADD (Industrial Additives Development Company LLC) has been dedicated to redefining additive manufacturing through innovation, sustainability, and collaboration. Rooted in Saudi Arabian values and strengthened by Colombian expertise, our global partnerships blend cultural understanding and technical excellence to deliver impactful solutions that make a difference in the industries we serve.

Product Portfolio

Our product portfolio is designed to fuel your success, offering performance-driven solutions for even the toughest industrial challenges.

Paint Driers

Paint driers are high-quality metal carboxylates designed to improve drying efficiency and performance in paint formulations. These metallic salts, dissolved in solvents, are easy to incorporate into solvent- and water-based paints and other applications.

- **Multi-metallic Solutions:** They optimize drying times for solvent- and water-based alkyd resins while improving inventory management and minimizing dosage errors.
- **Wide Range of Metals:** We offer carboxylates with metals like cobalt, calcium, zirconium, zinc, and manganese, as well as niche options like potassium, lithium, and strontium.
- **Flexible Concentrations:** We offer customizable concentrations, including high concentrations developed with over-base technology.

Applications

- Solvent-based and water-based paint and ink driers.
- PVC foaming agents (kickers).
- Catalysts for unsaturated polyester resin and other chemical reactions.

Types of Driers

- **Primary Driers:** Initiate surface drying quickly by catalyzing cross-linking in resins. For primary driers, we utilize octoates like cobalt, iron, manganese, cerium, and copper naphthenate. Cobalt octoate is widely used in the coating industry for surface drying, while iron octoate is effective at high temperatures. Manganese octoate is often combined with cobalt for enhanced performance, and cerium octoate excels in alkyd-based varnishes. Copper naphthenate is used as an anti-fouling agent, bactericide, and catalyst in ship bottom paints.
- **Secondary Driers (Through Driers):** Ensure uniform drying throughout the entire coating layer, preventing wet film beneath the surface. In secondary driers, zirconium and strontium octoates are key players. Zirconium octoate is known for its efficiency and stability, while strontium octoate offers cost-effective auxiliary drying characteristics.

- **Auxiliary Driers:** Enhance the effects of other driers without direct drying capabilities. For auxiliary driers, calcium, zinc, and potassium octoates are commonly used. Calcium octoate enhances gloss and hardness, zinc octoate prevents wrinkling and offers mold resistance, and potassium octoate is used to reduce the "pinking" effect of cobalt.
- **PQMIX Products:** These specialized formulations are designed to optimize the production process and performance of coatings. PQMIX 100 and PQMIX WE streamline production and improve whiteness, PQMIX P3 enhances drying times for solvent-based resins, and PQ2002 improves color appearance and reduces costs on pigments and brighteners.
- **Waterborne Driers:** Tailored for water-based systems, these driers ensure efficient drying without compromising environmental standards, offering a sustainable solution for modern coatings.
- **Advanced Mix Metals:** These innovative formulations combine multiple metals to enhance drying efficiency and performance, providing a versatile solution for various coating applications.
- **Cobalt-Free Driers:** Designed to meet regulatory requirements and environmental concerns, these driers offer effective drying without the use of cobalt, ensuring safety and compliance.

Benefits



Enhanced Efficiency: Accelerates drying times, improving production speed and efficiency.



Reduced Material Usage: Optimizes the amount of raw materials needed, reducing costs.



Minimized Errors: Decreases the risk of weighing errors during formulation.



Improved Surface Quality: Helps prevent surface defects like wrinkles in paint films.

We adapt our products to meet specific customer needs for alkyd and water-based paints, polyester resins, and other applications.

Calculation of Drier Requirement

The required drier weight is determined using the following formula:

$$\text{Kg of Drier} = \frac{((\text{Kg of Resin}) \times (\% \text{ Solids in Resin}) \times (\% \text{ Dosage}))}{(\% \text{ Metal in Drier Solution})}$$

Primary Driers	Metal %	Properties
COBALT OCTOATE	6/10/12%	✓ A primary/active drier widely used in the coating industry (surface drier). ✓ Excess use may cause rough surfaces. ✓ Used in mixtures with other metals for uniform film formation. ✓ Its blue-violet color neutralizes the yellow tones of resins and oils. ✓ Prevents water vapor from penetrating the paint film. ✓ Should be added near the end of the manufacturing process. ✓ Accelerates the catalytic effect of Methyl Ethyl Ketone (M.E.K.) Peroxide in polymerizing unsaturated polyester (UPR) resins.
IRON OCTOATE	6/12%	✓ Iron (III) carboxylate compounds are highly colored, making them unsuitable for many coatings. ✓ Active only at high temperatures; poor drying activity at room temperature. ✓ Used in baking-stove finishes to promote polymerization and rapid drying. ✓ Increases gloss by preventing drier adsorption on pigment surfaces. ✓ Excellent wetting agent for carbon black and iron oxide.
MANGANESE OCTOATE	6/9/10/12%	✓ Dark color makes it unsuitable for white or light finishes. ✓ Often combined with cobalt driers to reduce the levels of both. ✓ Weaker than cobalt as a drier. ✓ Exhibits both oxidizing and polymerizing properties. ✓ May produce overly hard and brittle films when used alone. ✓ Performs well in low temperatures and high humidity conditions.
CERIUM OCTOATE	6/12%	✓ A primary drier that promotes polymerization and ensures thorough drying. ✓ More active than lead in alkyd-based varnishes. ✓ Does not cause turbidity in oils and alkyd-based varnishes, unlike lead.

COPPER NAPHTHENATE	5/8%	✓ Used as an anti-fouling agent, bactericide, and catalyst in ship bottom paints. ✓ Acts as an inhibitor for unsaturated polyesters to extend canned time.
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Secondary Driers	Metal %	Properties
ZIRCONIUM OCTOATE	12/18/24%	✓ Lead alternative drier. ✓ Efficient through/auxiliary drier, often used with cobalt and calcium. ✓ Superior in terms of color, yellowing, and stability. ✓ Widely used due to lead restriction legislation. ✓ Poor pigment wetting and dispersing agent; requires combination with calcium.
STRONTIUM OCTOATE	18/24%	✓ Identical through-drying performance to zirconium. ✓ Offers auxiliary drying benefits, improving storage stability. ✓ Effective pigment wetting and dispersing agent, preventing haze and wrinkling. ✓ Considered superior to zirconium driers in overall performance. ✓ Cost-effective alternative to zirconium driers with excellent drying in low temperatures and high humidity.

Auxiliary Driers	Metal %	Properties
CALCIUM OCTOATE	4/6/10%	✓ Auxiliary drier effective in combination with active driers. Promotes drying in adverse conditions (high humidity, low temperature, etc.). ✓ Improves gloss, hardness, and reduces silking and skin formation. ✓ Enhances hardening and brightness of cured films. ✓ Minimizes drying loss due to pigment or filler adsorption. ✓ Prevents precipitation of lead and hazing. ✓ Acts as a dispersing agent and pigment wetting agent. ✓ Reduces loss-of-dry issues during long storage.

ZINC OCTOATE	8/16/22%	✓ Auxiliary drier generally used with redox metals. ✓ Keeps the surface film open, facilitating oxygen diffusion and ensuring a slower drying process. This helps prevent wrinkling of the film, especially in cobalt-containing films and enamels. ✓ Its very light color ensures no discoloration. ✓ Provides mold resistance. ✓ Effective wetting and dispersing agent.
POTASSIUM OCTOATE	12/15%	✓ Through drier often used in combination with cobalt and manganese octoates. ✓ Effective pigment wetting and dispersing agent. ✓ When combined with calcium, it can function as a loss-of-dry agent. ✓ Reduces the "pinking" effect of cobalt while altering gel time and peak exothermic temperature during curing.

Driers Combination	Properties
PQMIX 100	✓ Designed to streamline production and inventory management of enamels, varnishes, and anti-corrosives. ✓ Simplifies production by acting as a single product, preventing mistakes during the addition of driers. ✓ Reduces manufacturing times by minimizing production steps. ✓ Performs effectively in emulsified systems. ✓ Boosts productivity by releasing batches in half the time. ✓ Provides a logistics solution for inventory management and lowers administrative costs.
PQMIX WE	✓ Enhances the whiteness of coatings without requiring optical brighteners or color optimizers. ✓ Acts as a single product, preventing errors during drier addition. ✓ Shortens manufacturing times by reducing production steps. ✓ Delivers excellent performance in emulsified systems. ✓ Boosts productivity by halving batch release times. ✓ Optimizes inventory management and cuts administrative costs.
PQMIX P3	✓ Integral solution for production and inventory management in solvent-based oxidative drying resin coatings. ✓ Speeds up drying time.

PQ2002	✓ Primary drying agent enhancing appearance, preventing high purple coloration, and providing a whiteness and transparency effect. ✓ Improves color and gloss in enamels, anti-corrosive coatings, and varnishes. ✓ Lowers costs by reducing reliance on expensive pigments, optical brighteners, and resins. ✓ Shortens manufacturing times by minimizing production steps.
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Additional Drier Options

We also provide a comprehensive range of advanced drier solutions designed to meet specialized application needs:

- **Waterborne Driers:** Our waterborne driers are specifically engineered for environmentally friendly formulations. They offer excellent drying performance in water-based coatings, ensuring optimal film formation without compromising on quality or efficiency. These are ideal for applications requiring low volatile organic compound (VOC) content and compliance with environmental regulations.
- **Advanced Mixed Metals:** This category includes a blend of carefully selected metals that work synergistically to provide enhanced drying performance. These advanced formulations reduce dependency on traditional single-metal systems, leading to improved curing, faster reaction times, and greater overall efficiency. Perfect for complex formulations requiring precise performance tuning.
- **Cobalt-Free Driers:** Our cobalt-free driers are an innovative solution for sustainable and environmentally responsible formulations. They eliminate the risks associated with cobalt exposure while maintaining excellent drying performance. These alternatives are ideal for forward-thinking manufacturers aiming for regulatory compliance and reduced environmental impact, without sacrificing quality or durability.

Each of these offerings is designed to provide maximum performance and adaptability for modern coating and resin systems, ensuring reliable solutions for diverse industrial applications.

Transportation and Storage

Products should be stored in their original, sealed containers in a cool, dry environment to maintain quality and stability. For precise storage and handling guidelines, consult the specific product's Technical Data Sheet (TDS).

Compliance with transportation, storage, and handling regulations is mandatory for certain chemical products. Proper labeling and care are essential to ensure safe and legal handling. Additionally, local regulatory requirements may apply. For comprehensive safety information, always refer to the relevant Safety Data Sheets (SDS).

Custom Solutions

We also work closely with customers to craft bespoke additives that align perfectly with their operational requirements and goals. Every solution, whether for coatings or waterproofing, is designed with care and excellence.

Our custom solutions are designed to deliver enhanced performance and efficiency, ensuring that your operations run smoothly and effectively.

By optimizing formulations, these solutions help reduce costs and minimize material usage without compromising on quality. You can count on reliable, high-quality results that consistently meet the most demanding standards.

Additionally, we offer sustainable and eco-friendly options, allowing you to align your processes with environmental goals and regulations.



Disclaimer

INDADD provides customers with warranties and representations regarding the chemical or technical specifications, compositions, and/or suitability for use for any specific purpose solely through individually written agreements.

The information, data, and figures provided in this document have been compiled with the utmost care and reflect INDADD's current knowledge. However, they are intended purely for informational purposes.

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