Product Safety Assessment

ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers


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Names
• ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers
• ADCOTE 68-109 Primer
• ADCOTE 68-101B Primer

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Product Overview
• ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers are clear to yellow, hazy liquids with a solvent-like odor.\(^1,2\) For further details, see Product Description.
• ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are used as a premetallization base on paper and polyester film for packaging applications.\(^3\) For further details, see Product Uses.
• Exposure can occur either in facilities that manufacture ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers or in the various industrial or manufacturing facilities that use these products. ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are not sold directly to consumers, but they are used in products with which consumers may come into contact, such as food or medical packaging. Products used for food contact applications comply with U.S. FDA regulations. Exposure to cured and/or dried product is not considered to present a risk to consumers.\(^4\) For further details, see Exposure Potential.
• Eye contact may cause slight to severe eye irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Skin contact may cause moderate skin irritation, sensitization, and chemical burns. Inhalation of solvent vapor or mist may cause irritation of the nose, throat, and lungs, headache, nausea, dizziness, weakness, slurred speech, stupor, narcosis, central nervous system effects, and unconsciousness. These products may be harmful if swallowed and may result in gastrointestinal irritation or ulceration. Prolonged or repeated overexposure to the solvents in these products may result in central nervous system effects, and damage to kidneys, liver, lungs, or gastrointestinal tract.\(^5\) For further details, see Health Information.
• The polymer components in ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are expected to degrade slowly in the environment. Due to their high molecular weight, the polymers are not expected to accumulate in the food chain and they are not expected to be toxic to aquatic organisms on an acute basis. The solvents used in the products are readily biodegradable, have a low tendency to accumulate in the food chain, and are practically non-toxic to aquatic organisms on an acute basis.\(^6\) For further details, see Environmental Information.

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- These products are considered stable under recommended storage and normal use conditions. Because of the associated solvents, these products are flammable and should be kept away from ignition sources. Contact with heat and strong oxidizers must be avoided. For further details, see Physical Hazard Information.

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Manufacture of Product

- **Locations** – ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers are manufactured in various global locations by Rohm and Haas Company, a wholly owned subsidiary of The Dow Chemical Company, and its global affiliates.
- **Process** – ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are produced using proprietary processes and materials.

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Product Description

ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers are thermoplastic, solvent-borne, acrylic primers that are supplied as yellow, clear to hazy liquids with a solvent-like odor. These products range from 23% to 45% solids and consist of resins suspended in solvents, including ethyl acetate (CAS No. 141-78-6) or methyl ethyl ketone (CAS No. 78-93-3).

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Product Uses

ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers are designed for gravure or roll-coat application as a premetallization base on paper and polyester films. Substrates primed with these products are then metallized and used in food, medical, and industrial packaging applications. Products used for food-contact applications comply with U.S. FDA regulations.

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Exposure Potential

ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers are used in the production of industrial and consumer products. Based on the uses for these products, individuals could be exposed through:

- **Workplace exposure** – Exposure can occur either in facilities that manufacture ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers or in the various industrial or manufacturing facilities that use these products. They are produced, transported, and stored in closed systems. Those working with these products in manufacturing operations could be exposed during maintenance, sampling, testing, application, or other procedures. Each manufacturing facility should have a thorough training program for employees and appropriate work processes, ventilation, and safety equipment in place to prevent exposure. See Health Information.

- **Consumer exposure to products containing ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers** – Dow does not sell ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers for direct consumer use, but these products are used in food and medical packaging applications, so consumers may come into contact with them. Exposure to cured and/or dried product is not considered to present a risk to consumers. See Health Information.

- **Environmental releases** – In the event of a spill, the focus is on containing the spill to prevent contamination of soil, surface water, or groundwater. Respiratory protection is necessary for cleaning up spills and leaks. Eliminate all sources of ignition immediately. Small spills should be absorbed with materials such as sand. If released, the polymer components in ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers will tend to float in water and will be removed in biological wastewater treatment plants by adsorption to biosolids. If released, the solvents will exhibit low tendency to volatilize from water. In air, the solvents will degrade by reaction with photochemically produced hydroxyl radicals. Since the solvents are readily biodegradable, they are expected to be removed from water and soil environments, including biological wastewater treatment plants. See Environmental Information, Health, and Physical Hazard Information.

- **Large release** – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, the product should be captured, collected, and reprocessed or disposed of according to applicable governmental regulations. Respiratory protection is necessary for cleaning up spills and leaks. Eliminate all sources of ignition immediately. Ensure there is adequate ventilation and stay upwind of the spill. Use only explosion-proof equipment; ground and bond all containers and handling equipment. See Environmental Information, Health, and Physical Hazard Information.

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In case of fire – Deny any unnecessary entry into the area and consider the use of unmanned hose holders. Use water spray, carbon-dioxide or dry-chemical extinguishers, or foam to fight the fire. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing. Vapors may travel to a source of ignition and flash back. Keep fire water out of waterways and sewers to minimize the potential for environmental damage. Follow emergency procedures carefully. See Environmental Information, Health, and Physical Hazard Information.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Health Information

Health information for ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers is summarized on the relevant Safety Data Sheets. It is important to note that health risks associated with individual products may vary based on their formulation or intended use. These products may also contain minor components or additives that have additional health risks. The Safety Data Sheets are the preferred source for specific health information. An overview of health information for ADCOTE 68 Series Solvent-Based Metallization Primers appears below.

Eye contact – Contact with components of these products may cause slight to severe eye irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Skin contact – Contact with components of these products may cause moderate skin irritation, sensitization, and chemical burns.

Inhalation – Inhalation of solvent vapor or mist may cause irritation of the nose, throat, and lungs, as well as headache, nausea, dizziness, weakness, slurred speech, stupor, narcosis, central nervous system effects, and unconsciousness.

Ingestion – These products may be harmful if swallowed and may result in gastrointestinal irritation or ulceration.

Repeated exposure – Prolonged or repeated overexposure to the solvents in these products may result in central nervous system effects and damage to kidneys, liver, lungs, or gastrointestinal tract.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Environmental Information

Environmental information for ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers is summarized on the relevant Safety Data Sheets. It is important to note that environmental risks associated with individual products may vary based on their formulation and/or intended use. The Safety Data Sheet is the preferred source for specific environmental information.

The high molecular weight polymer components in ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are nonvolatile and insoluble in water. If released to the environment, the polymers would float in water and eventually bind to soil, suspended solids, or sediment. Although the polymers are not readily biodegradable, they would be expected to degrade slowly in the environment, including degradation by physical action or by exposure to sunlight. The polymers would likely be removed in biological wastewater-treatment facilities by adsorption to biosolids. The polymers are not expected to accumulate in the food chain due to their high molecular weight (bioconcentration potential is low) and are not expected to be toxic to fish or other aquatic organisms on an acute basis.

The solvents in ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers have moderate volatility and range from moderately soluble to soluble in water. If released to the environment, the solvents in these products would have a low tendency to evaporate from water with minimal tendency to bind to soil and sediments. The solvents are unlikely to persist in the environment. In the atmosphere, they will degrade within days by reaction with photochemically produced hydroxyl radicals. The solvents are readily biodegradable, which suggests that they would be removed from water and soil environments, including biological wastewater-treatment facilities. The solvents are not expected to accumulate in the food chain and they are practically non-toxic (EC50/LC50 >100 mg/L) to aquatic organisms on an acute basis.
Physical Hazard Information

ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers contain solvents that require strict adherence to recommended storage, handling, and firefighting procedures. Due to the associated solvents, ADCOTE 68 Series Solvent-Based Acrylic Metallization Primers are extremely flammable. Keep containers tightly closed in a well-ventilated area away from sources of heat and ignition. Containers may be hazardous when empty. Provide sufficient air ventilation when handling.

Vapors are heavier than air and may travel to a source of ignition and flash back. Heated material may form flammable or explosive mixtures with air. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat. Contact with heat and strong oxidizers must be avoided.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers. These regulations may vary by city, state, country, or geographic region. Information may be found by consulting the relevant Safety Data Sheet or Contact Us.

Additional Information

- Request Safety Data Sheets and Technical Data Sheets from the Dow Customer Information Group (www.dow.com/assistance/dowcig.htm)
- Contact Us (www.dow.com/assistance/dowcig.htm)
- ADCOTE™ 68-101B Primer (Technical Data Sheet), Packaging and Converting, Rohm and Haas Company, May 2006

For more business information about ADCOTE™ 68 Series Solvent-Based Acrylic Metallization Primers, visit the Dow Packaging Products website at www.dow.com/products/market/packaging/product-line/adcote/.
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NOTICES

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