Product Safety Assessment

ROBOND™ PS-67 and ROBOND PS-68 Adhesives

Product Safety Assessment documents are available at: www.dow.com/productsafety/finder/.

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Names
- ROBOND™ PS-67 Adhesive  •  Acrylic emulsion polymer
- ROBOND PS-68 Adhesive  •  Acrylic polymer

Product Overview
- ROBOND™ PS-67 and PS-68 Adhesives are water-based acrylic emulsions designed for specific pressure-sensitive adhesive applications. For further details, see Product Description.
- ROBOND PS-67 and PS-68 Adhesives are used almost exclusively as pressure-sensitive adhesives in a variety of clear and pigmented films.¹ For further details, see Product Uses.
- These products are not sold for direct consumer use, but consumers may use products which contain them in cured and dried form. Some examples are pressure-sensitive tapes or labels. For further details, see Exposure Potential.
- Eye or skin contact can result in slight irritation. Inhalation of vapor or mist can cause headache, nausea, and irritation of the nose, throat, and lungs.² For further details, see Health Information.
- ROBOND PS-67 and PS-68 Adhesives have limited biodegradability, but readily adsorb onto wastewater-treatment biosolids, so they are expected to be removed from treated water during normal wastewater-treatment processes. The components of these adhesives are not likely to accumulate in the food chain.² For further details, see Environmental Information.
- ROBOND PS-67 and PS-68 Adhesives are stable and do not undergo any known hazardous reactions.² For further details, see Physical Hazard Information.

Manufacture of Product³
- Locations – The Dow Chemical Company produces acrylic emulsion polymers in various U.S. locations.

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Product Description

ROBOND™ PS-67 and PS-68 Adhesives are water-based acrylic emulsions designed for specific pressure-sensitive adhesive applications.

Product Uses

ROBOND™ PS-67 and PS-68 Adhesives are used for pressure-sensitive adhesive applications. Specifically, these ROBOND products are applied to the backing of film labels for adhesion to a variety of plastics. Substrates include polyolefin, PET, PVC, and polystyrene films. ROBOND PS-67 and PS-68 Adhesives meet requirements for indirect food contact as outlined in the Food and Drug Administration (FDA) regulation 21CFR 175.105.

Exposure Potential

ROBOND™ PS-67 and PS-68 Adhesives are used in the production of industrial and consumer products. Based on the uses for these products, the public could be exposed through:

- **Workplace exposure** – Exposure can occur either in an acrylic emulsion manufacturing facility or in manufacturing facilities that use these products. Those working with these adhesives in manufacturing operations could be exposed during maintenance, sampling, testing, 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 limit exposure. See Health Information.

- **Consumer exposure to products containing ROBOND PS-67 and PS-68 Adhesives** – Dow does not sell ROBOND PS-67 and PS-68 Adhesives for direct consumer use, but consumers may use products containing them such as pressure-sensitive tapes or labels. See Health Information.

- **Environmental releases** – Small quantities of these products may be released into the environment during processing. In the event of a release, the focus is on containing the spill to prevent contamination of soil and surface or ground water. Small spills should be absorbed with inert materials such as sand or soil. Because these products will coagulate and bind to biosolids, they would be expected to be removed by wastewater-treatment facilities. See Environmental, Health, and Physical Hazard Information.

- **Large release** – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, the material should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Respiratory protection is recommended for cleaning up spills and leaks because the odor may be unpleasant. Keep spills and cleaning runoff out of municipal sewers and open bodies of water. See Environmental, Health, and Physical Hazard Information.

- **In case of fire** – Deny unnecessary entry into the area. Although the product is not combustible, it can spatter when heated above 100°C (212°F), and the dried residue can burn. Use extinguishing techniques that are suitable for the materials surrounding the fire. Firefighters should wear positive-pressure, self-contained breathing apparatus and protective firefighting clothing when fighting the fire. Follow emergency procedures carefully. See Environmental, Health, and Physical Hazard Information.

For more information, see the relevant Safety Data Sheet.
Health Information

Eye contact – Direct eye contact with liquid adhesive can cause slight irritation.

Skin contact – Prolonged or repeated skin contact can cause slight irritation.

Inhalation – Inhalation of vapor or mist from these adhesives can cause headache, nausea, and irritation of the nose, throat, and lungs.

For more information, see the relevant Safety Data Sheet.

Environmental Information

Because of their low molecular weight and low water solubility, ROBOND™ PS-67 and PS-68 Adhesives would not be expected to bioconcentrate (accumulate in the food chain). The biodegradation of these products are considered limited and depend on the origin of the materials. These products would likely absorb onto soil or typical wastewater-treatment biosolids, so they are expected to be removed from the water during normal wastewater-treatment processes.

To properly dispose of these products, coagulate the emulsion by the stepwise addition of ferric chloride and lime. Separate the coagulant from the clear liquid and flush the liquid to a chemical sewer. Dispose of the solid material in accordance with local, state, and federal regulations.

Emulsion polymers such as ROBOND PS-67 and PS-68 Adhesives are of low concern with regard to aquatic toxicity.

For more information, see the relevant Safety Data Sheet.

Physical Hazard Information

ROBOND™ PS-67 and PS-68 Adhesives are stable products that do not undergo any known hazardous reactions. Although these products are not combustible, they can spatter when heated above 100°C (212°F), and the dried residues can burn. To maintain product quality, avoid extreme temperatures during storage. Keep from freezing. Do not store in heat or direct sunlight. At elevated temperatures, such as a fire, thermal decomposition of these products may yield acrylic monomers.

For more information, see the relevant Safety Data Sheet.

Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of ROBOND™ PS-67 and PS-68 Adhesives. 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

- Safety Data Sheet (request from the Dow Customer Information Group)
  (http://www.dow.com/webapps/msds/msdssearch.aspx)
- Contact Us (www.dow.com/assistance/dowcig.htm)
  Economics Handbook, SRI Consulting, December 2006
  (www.sriconsulting.com/CEH/Public/Reports/592.5500/)
- Dow web site: Products: ROBOND™ PS Products
- ROBOND™ PS-67 and ROBOND™ PS-68 Adhesives Technical Data Sheets, Rohm and
  Haas Company (request from the Dow Customer Information Group
  www.dow.com/assistance/dowcig.htm)

For more business information about ROBOND™ PS Adhesives, visit the Dow products web site

References

1 ROBOND™ PS-67 Adhesive Technical Data Sheet, The Dow Chemical Company
2 ROBOND PS-67 Adhesive Material Safety Data Sheet, The Dow Chemical Company
NOTICES:

As part of its 2015 Sustainability Goals, Dow has committed to make publicly available safety assessments for its products globally. This product safety assessment is intended to give general information about the chemical (or categories of chemicals) addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the relevant Safety Data Sheet, which should be consulted before use of the chemical. This product safety assessment does not replace required communication documents such as the Safety Data Sheet.

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