Product Safety Assessment

RHOPLEX™ Crosslinkable Acrylic Emulsions

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

Select a Topic:
Names
Product Overview
Manufacture of Product
Product Description
Product Uses
Exposure Potential
Health Information
Environmental Information
Physical Hazard Information
Regulatory Information
Additional Information
References

Names
• RHOPLEX™ Crosslinkable Acrylic Emulsions
• Emulsion polymer
• Acrylic polymer

Back to top

Product Overview
• RHOPLEX™ Crosslinkable Acrylic Emulsions are stable micro-suspensions (emulsions) of acrylic polymer in water. For further details, see Product Description.
• RHOPLEX Crosslinkable Acrylic Emulsions are designed for use as binders for textiles and nonwoven fabrics.1 For further details, see Product Uses.
• RHOPLEX Crosslinkable Acrylic Emulsions are not sold for direct consumer use, but consumers may come in contact with dried and cured product when handling nonwoven products. For further details, see Exposure Potential.
• Direct eye or prolonged or repeated skin contact can result in slight irritation. Inhalation of vapor or mist can cause headache, nausea, and irritation of the nose, throat, and lungs. For further details, see Health Information.
• RHOPLEX Crosslinkable Acrylic Emulsions have limited biodegradability, but would likely adsorb onto soil or typical wastewater-treatment sludge and would be separated from effluents during normal wastewater-treatment processes. They would not be expected to accumulate in the food chain (bioconcentrate).2 Based on data from similar emulsion polymers, the aquatic toxicity would be expected to be low. For further details, see Environmental Information.
• RHOPLEX Crosslinkable Acrylic Emulsions are stable and do not undergo any known hazardous reactions.3 For further details, see Physical Hazard Information.

Back to top

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Manufacture of Product

- Locations – Rohm and Haas, a wholly owned subsidiary of The Dow Chemical Company, produces acrylic emulsion polymers in various U.S. locations.
- Process – RHOPLEX™ Crosslinkable Acrylic Emulsions are manufactured in batch operations using proprietary Rohm and Haas materials and technology.

Product Description

RHOPLEX™ Crosslinkable Acrylic Emulsions are stable micro-suspensions (emulsions) of acrylic polymers in water. These products are milky-white liquids consisting of approximately 45% polymer solids, traces of residual monomer, and water.

Product Uses

RHOPLEX™ Crosslinkable Acrylic Emulsions are recommended for bonding fibers in textiles and nonwoven products, especially when extra strength or durability is desired.

Exposure Potential

RHOPLEX™ Crosslinkable Acrylic Emulsions 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 emulsion manufacturing facility or in textile manufacturing facilities that use this product. Those working with these products 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 ensure exposure guidelines are not exceeded. See Health Information.
- Consumer exposure to products containing RHOPLEX Crosslinkable Acrylic Emulsions – Dow does not sell these products for direct consumer use, but consumers may come in contact with dried and cured product when handling certain textiles or nonwoven fabrics. Exposure to cured and dried product is not considered to present a risk to consumers. See Health Information.
- Environmental releases – Small quantities of these products may be released into the environment during textile 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 they will coagulate and bind to sludge, these products would be expected to be removed by wastewater-treatment facilities. Based on data for similar emulsion polymers, the aquatic toxicity would be expected to be low. See Environmental, Health, and Physical Hazard Information.
- Large release – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, spilled material should be captured, collected, and reprocessed or disposed of according to applicable governmental regulations. 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 products are not combustible, they 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.

Back to top

Health Information

Eye contact – Direct eye contact with these products can cause slight irritation.

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

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

For more information, see the relevant Safety Data Sheet.

Back to top

Environmental Information

Because of their high molecular weight and low water solubility, RHOPLEX™ Crosslinkable Acrylic Emulsions would not be expected to bioconcentrate (accumulate in the food chain). Biodegradation of these products is considered limited. However, these products would likely adsorb onto soil or typical wastewater-treatment sludge and would be readily separated from liquid effluents during normal waste-water treatment processes.

Based on data for similar emulsion polymers, the aquatic toxicity would be expected to be low.

For more information, see the relevant Safety Data Sheet.

Back to top

Physical Hazard Information

RHOPLEX™ Crosslinkable Acrylic Emulsions are stable micro-suspension (emulsions) of acrylic polymers in water that do not undergo any known hazardous reactions. Although these products are not combustible, they can spatter when improperly heated above 100°C (212°F), and the dried residue can burn. To maintain product quality, avoid extreme temperatures during storage. Keep these products 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.

Back to top

Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of RHOPLEX™ Crosslinkable Acrylic Emulsions. 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.

Back to top

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Product Safety Assessment: RHOPLEX™ Crosslinkable Acrylic Emulsions

Additional Information

- Contact Us (www.dow.com/assistance/thoughts.htm)


References

NOTICES:

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Back to top