Product Safety Assessment

GREENPUR™ Carbon Black Color Pastes


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Names
- GREENPUR™ 3035 Nero Color Paste
- GREENPUR 3065 Nero Color Paste

Product Overview
- GREENPUR Carbon Black Color Pastes are water-insoluble dispersions of carbon-black pigment in dipropylene glycol monomethyl ether. They are formulated as black, creamy pastes with a mild odor.¹,² For further details, see Product Description.
- GREENPUR Carbon Black Color Pastes are used to color solvent-based polyurethane and vinyl-acrylic resins used for textile coatings and artificial leather production.³ For further details, see Product Uses.
- Exposure can occur either in facilities that manufacture GREENPUR Carbon Black Color Pastes or in the various industrial or manufacturing facilities that use this product. Dow does not sell these products for direct consumer use, but they are used to color artificial leathers and textile products to which individuals could be exposed.⁴ For further details, see Exposure Potential.
- Direct eye and skin contact may cause irritation. Inhalation of vapor or mist from solvent and carbon black dust may cause irritation of the nose, throat, and lungs, and excessive exposure may cause dizziness or drowsiness. In laboratory animals, carbon black has been shown to be carcinogenic. These products have low toxicity if swallowed.⁵,⁶,⁷ The solvent in these products is known to cause effects on reproduction of laboratory animals only at doses that cause significant toxicity to parental animals. For further details, see Health Information and request the relevant Safety Data Sheet from the Dow Customer Information Group.
- The dye component in GREENPUR Carbon Black Color Pastes, carbon black, is expected to degrade slowly in the environment, is not expected to accumulate in the food chain (bioconcentration potential is low), and is expected to be practically nontoxic to aquatic organisms on an acute basis. The solvent in these products is readily biodegradable, has a low potential to accumulate in the food chain (bioconcentration potential is low), and is practically nontoxic to aquatic organisms on an acute basis.⁸,⁹,¹⁰ For further details, see Environmental Information.
- GREENPUR Carbon Black Color Pastes are considered stable under recommended storage and normal use conditions. Avoid contact with strong oxidizers.¹¹ For further details, see Physical Hazard Information.
Manufacture of Product

- **Location** – GREENPUR™ products are formulated by approved contract manufacturers to meet stringent Dow specifications for quality and performance. The materials are produced in locations and quantities necessary to meet market demand.
- **Process** – GREENPUR Carbon Black Color Pastes are produced using proprietary chemistries, processes, and blending techniques.

Product Description

GREENPUR™ Carbon Black Color Pastes are dispersions of carbon-black pigment in dipropylene glycol monomethyl ether. The carbon black typically makes up 10 to 13% of the dispersion. These products are formulated as black, creamy pastes with a mild odor. They are insoluble in water, but soluble in many organic solvents and oils.

Product Uses

GREENPUR™ Carbon Black Color Pastes are used to color solvent-based polyurethane and vinyl-acrylic resins used for textile coatings and artificial leather production. These products are also used to color high-solids, two-component polyurethanes.

Exposure Potential

GREENPUR™ Carbon Black Color Pastes are used in the formulation of a variety 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 or formulate GREENPUR Carbon Black Color Pastes or in the various industrial facilities that use these products. 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 prevent exposure. See Health Information.
- **Consumer exposure to products containing GREENPUR Carbon Black Color Pastes** – Dow does not sell these products for direct consumer use, but they are used in small amounts to color textile coatings and artificial leathers to which individuals could be exposed. Exposure to the final products is not considered to present a risk. See Health Information.
- **Environmental releases** – Engineering controls in facilities that manufacture or formulate GREENPUR Carbon Black Color Pastes are designed to limit environmental exposure. If released to the environment, the carbon black is expected to bind to soils, suspended solids, and sediments and would be removed in wastewater-treatment facilities by adsorption to biosolids. Since the solvent is readily biodegradable, it will likely be removed in biological wastewater treatment facilities as well as other water and soil environments. In the event of a spill, the focus is on containing the spill to prevent contamination of soil, surface water, or groundwater. For small spills, these products should be absorbed with inert materials such as sand. 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 product should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Appropriate protective equipment must be worn when handling a spill of this material. Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Eliminate all ignition sources and evacuate personnel to safe areas. Ventilate the area. Floor may be slippery; use care to avoid falling. Soak up material with inert, organic material such as sand, silica gel, acid binder, universal binder, or sawdust. Sweep up or vacuum up spillage, and collect in suitable container for disposal. Avoid breathing vapor. Spills on porous surfaces can contaminate groundwater. See Environmental, Health, and Physical Hazard Information.
- **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. Vapors may travel to a source of ignition and flash back. Closed containers may rupture via pressure buildup when exposed to fire or extreme heat. During a fire, irritating or highly toxic gases and/or fumes may be generated during combustion or decomposition. Move containers promptly out of fire zone. If removal is impossible, cool containers with water spray. Remain upwind and avoid breathing smoke. Firefighters should wear self-contained breathing apparatus (SCBA). See Environmental, Health, and Physical Hazard Information.

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

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Health Information

Health information for GREENPUR™ Carbon Black Color Pastes is summarized on the relevant Safety Data Sheets. An overview of health information for GREENPUR Carbon Black Color Pastes appears below. It is important to note that health hazards associated with individual products may vary based on their formulation or intended use. These materials may also contain minor components or additives that have additional health hazards which are at levels that are not a risk to consumers. The Safety Data Sheet is the preferred source for specific health information.

**Eye contact** – Direct contact with the solvent is essentially nonirritating to the eyes. Contact with the other components may cause slight irritation.

**Skin contact** – Direct contact with the solvent is essentially nonirritating to skin. Contact with the other components may cause slight irritation.

**Inhalation** – Inhalation of vapor or mist from the solvent may cause minor irritation of the nose, throat, and lungs, and excessive exposure may cause dizziness or drowsiness.

**Ingestion** – These products have low toxicity if swallowed. Swallowing small amounts incidental to handling is not likely to cause injury; however, swallowing larger amounts may cause injury.

**Repeated exposure** – In laboratory animals, carbon black has been shown to be carcinogenic and to adversely affect the fetus of animals at doses that are toxic to the mother. It is classified by the International Agency for Research on Cancer (IARC) as Group 2B (1996), possibly carcinogenic to humans.

**Other** – The solvent in this product is known to cause effects on reproduction of laboratory animals only at doses that cause significant toxicity to the parental animals.

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

Environmental Information

Environmental information for GREENPUR™ Carbon Black Color Pastes is summarized on the relevant Safety Data Sheets. An overview of the environmental information appears below. However, these materials may also contain solvents or additives that have additional environmental impact. It is important to note that environmental impact associated with individual products may vary based on their formulation or intended use. The Safety Data Sheet is the preferred source for specific environmental information.

The dye component used in GREENPUR Carbon Black Color Pastes, carbon black, is insoluble in water and has low volatility. If released to water, it is expected to bind to soils, suspended solids, or sediments and would be removed in wastewater-treatment facilities by adsorption to biosolids. Carbon black is expected to degrade slowly in the environment in response to chemical and biological processes. This component is not likely to accumulate in the food chain (bioconcentration potential is low) and is expected to be practically nontoxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L for most sensitive species tested).

The solvent used in GREENPUR Carbon Black Color Pastes, dipropylene glycol monomethyl ether, has low volatility and is miscible with water. If released to the environment, the compound will have a tendency to remain in water with minimal tendency to bind to soil or sediment.

The solvent is unlikely to persist in the environment. The solvent is readily biodegradable, which suggests that it will likely be removed in biological wastewater treatment facilities as well as other water and soil environments. The solvent is not likely to accumulate in the food chain (bioconcentration potential is low) and is practically nontoxic to aquatic organisms on an acute basis (LC50 >100 mg/L in the most sensitive species tested).

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.
Physical Hazard Information
GREENPUR™ Carbon Black Color Pastes are considered stable under recommended storage and normal use conditions. Avoid contact with ignition sources.

Avoid contact with strong oxidizers.

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

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Regulatory Information
Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of GREENPUR™ Carbon Black Color Pastes. 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.

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Additional Information
- Request the relevant Safety Data Sheet from the Dow Customer Information Group (www.dow.com/assistance/dowcig.htm)
- Contact Us (www.dow.com/assistance/index.htm)
- Hazardous Substances Data Bank (HSDB), U.S. National Library of Medicine, TOXNET System (http://toxnet.nlm.nih.gov/)


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References
1 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Composition and Physical and Chemical Properties.
5 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Toxicological Information.

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10 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Ecological Information.


12 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Composition and Physical and Chemical Properties.


15 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Toxicological Information.


20 GREENPUR 3035 Nero Safety Data Sheet, The Dow Chemical Company, November 22, 2008, Ecological Information.


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NOTICES

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