Product Safety Assessment

DOWFAX™ 20 A and B Nonionic Surfactants


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Names
- DOWFAX™ 20B102 Nonionic Surfactant
- CAS No. 1301637-43-3
- CAS No. 68551-13-3
- DOWFAX™ 20A42
- DOWFAX™ 20A64

Product Overview
- DOWFAX™ 20 A and B Nonionic Surfactant are water-soluble, foam control and detergency agents, supplied as a colorless, odorless liquid. For further details, see Product Description.
- DOWFAX 20 A and B Nonionic Surfactants provide foam control and detergency in a variety of manufacturing and industrial processes. For further details, see Product Uses.
- Worker exposure to these surfactants is possible during manufacture, transport, or use. Exposure is minimized by engineering controls and the use of appropriate personal protective equipment. For further details, see Exposure Potential.
- Eye contact with these surfactants may cause moderate irritation. Brief skin contact may cause slight irritation with local redness. At room temperature, exposure to vapor is minimal due to low volatility. This product has low toxicity if swallowed. For further details, see Health Information and the relevant Safety Data Sheet.
- DOWFAX 20 A and B Surfactants are water soluble, readily biodegradable, and are not expected to accumulate in the food chain. These products are moderately toxic to aquatic organisms on an acute basis. For further details, see Environmental Information.
- DOWFAX 20 A and B Surfactants are thermally stable under recommended storage and normal use conditions. Exposure to elevated temperatures can cause this product to decompose. For further details, see Physical Hazard Information.

Manufacture of Product
- Locations – The Dow Chemical Company and its global affiliates manufacture DOWFAX™ 20 A and B Nonionic Surfactant at facilities in Europe.
- Process – DOWFAX 20 A and B Nonionic Surfactants are manufactured by reacting an alcohol with ethylene oxide and butylene oxide, or propylene oxide using proprietary methods.
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Product Description\(^{1,2,3,4}\)
DOWFAX™ 20 A and B Nonionic Surfactants are water-soluble foam control and detergency agent, supplied as colorless, odorless liquids.

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Product Uses\(^{5}\)
DOWFAX™ 20 A and B Nonionic Surfactants provide defoaming/antifoam and detergency properties in various manufacturing processes and industrial applications, including:

- Household and institutional cleaning products
- Oil and gas processing
- Paint and coatings
- Paper processing
- Foam control
- Industrial surface-active agents

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Exposure Potential\(^{1,2,3,4}\)
DOWFAX™ 20 A and B Nonionic Surfactants are used in the production of industrial and consumer products. Based on the uses for this product, individuals could be exposed through:

- **Workplace exposure** – Exposure can occur either in facilities that manufacture these products or in the various industrial or 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 limit exposure. See Health Information.
- **Consumer exposure to products containing DOWFAX 20 A and B Nonionic Surfactants** – Dow does not sell DOWFAX 20 A and B Nonionic Surfactants for direct consumer use. Although this product is used in industrial processes to manufacture cleaning products, detergents, paper, and paint, these uses are not expected to pose an exposure 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. DOWFAX 20 A and B Nonionic Surfactants are water soluble and has low volatility. If released to the environment, this product would tend to disperse and remain in or migrate toward water. It is readily biodegradable and would be removed by biological wastewater-treatment facilities. This product is moderately toxic to aquatic organisms on an acute basis. 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. Isolate the area. Keep unnecessary and unprotected personnel from entering the area. Spilled product may cause a slipping hazard. Use appropriate safety equipment. Prevent the product from entering soil, ditches, sewers, waterways, and/or groundwater. Contain spilled product if possible. Absorb with materials such as dirt or sand. Collect in suitable and properly labeled containers. Do not use water for cleanup. See Environmental, Health, and Physical Hazard Information.
- **In case of fire** – Keep people away. Isolate the fire and deny unnecessary entry. Use water spray or fog, carbon-dioxide or dry-chemical extinguishers, or foam to fight the fire. Alcohol-resistant foams are preferred. Burning liquids may be extinguished by dilution with water to protect personnel and minimize property damage. Do not use a direct water stream, which may spread the fire. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight the fire from a protected location or safe distance. Follow emergency procedures outlined in the Safety Data Sheet carefully. See Environmental, Health, and Physical Hazard Information.

For more information, see the relevant Safety Data Sheet.

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Health Information\(^{1,3,4}\)

**Eye contact** – Contact may cause moderate eye irritation.

**Skin contact** – Brief contact may cause slight skin irritation with local redness. Prolonged contact is unlikely to result in absorption of harmful amounts.

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**Inhalation** – At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated product may cause respiratory irritation. Based on physical properties, this product is not likely to be an aspiration hazard.

**Ingestion** – This product has low toxicity if swallowed. Swallowing small amounts incidental to normal handling operations is not likely to cause injury; however, swallowing larger amounts may cause injury.

For more information, see the relevant Safety Data Sheet.

**Environmental Information**¹,³,⁴  
DOWFAX™ 20 A and B Nonionic Surfactants are nonvolatile (does not evaporate) and are soluble in water. If released to the environment, these products would disperse and remain in or migrate toward water. These products are considered readily biodegradable, with more than 60% biodegradation after 28 days (per OECD 301F study guidelines). Because they are readily biodegradable, the products would be expected to be removed by biological wastewater-treatment facilities. DOWFAX 20 A and B Nonionic Surfactants have relatively high water solubility; therefore, the bioconcentration potential is expected to be low. These products are moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L). These products do not contain ingredients that are persistent, bioaccumulative or toxic (PBT) or very persistent or very bioaccumulative (vPvB).

For more information, see the relevant Safety Data Sheet.

**Physical Hazard Information**¹,³,⁴  
DOWFAX™ 20 A and B Nonionic Surfactants are thermally stable under recommended storage and normal use conditions. Exposure to elevated temperatures can cause these products to decompose. Decomposition products depend on temperature, air supply, and the presence of other materials. Avoid contact with strong acids, strong bases, strong oxidizers, and strong reducing agents.

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 DOWFAX™ 20 A and B Nonionic Surfactants. 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**  
- Obtain the relevant Safety Data Sheet ([www.dow.com/webapps/msds/msdssearch.aspx](http://www.dow.com/webapps/msds/msdssearch.aspx))
- Contact Us ([www.dow.com/polyglycols/ppgc/europe/contact/index.htm](http://www.dow.com/polyglycols/ppgc/europe/contact/index.htm))

For more business information about DOWFAX™ 20B102 Nonionic Surfactant, visit the Dow Propylene Glycols and Copolymers Europe web site at [www.dow.com/polyglycols/ppgc/europe/products/dns.htm](http://www.dow.com/polyglycols/ppgc/europe/products/dns.htm).

**References**  
¹ The Dow Chemical Company. DOWFAX™ 20B102 Nonionic Surfactant, Material Safety Data Sheet  
³ The Dow Chemical Company. DOWFAX™ 20A42 Nonionic Surfactant, Material Safety Data Sheet  
⁴ The Dow Chemical Company. DOWFAX™ 20A64 Nonionic Surfactant, Material Safety Data Sheet
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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