

Product Safety Summary



Butane

This Product Safety Summary document is a high-level summary intended to provide the general public with an overview of product safety information on this chemical substance. It is not intended to provide emergency response, medical or treatment information, or to provide a discussion of all safety and health information. This document is not intended to replace the Material Safety Data Sheet. Warnings and handling precautions provided below are not intended to replace or supersede manufacturers' instructions and warning for their consumer products which may contain this chemical substance.

1. Chemical Identity

Butane is a hydrocarbon, generally manufactured from feedstocks that are of "petroleum" origin in a refinery manufacturing process. The name Butane typically refers to both of its isomers: the linear n-Butane and the branched iso-Butane

CAS No. 106-97-8 **Chemical Name:** Butane **Other Names:** Iso-Butane, Normal-Butane

2. Product Uses

Butane is used primarily as a fuel, either for heating purposes or for engines such as on a forklift. Butane is also used as a feedstock for chemical manufacturing processes. Highly purified Butane can be used as propellant in aerosol spray cans. Butane may also be used as a component in LPG (Liquefied Petroleum Gas). Butane may be repackaged by our customers and sold directly to the public for general consumer uses.

3. Physical / Chemical Properties

At ambient temperature Butane is an extremely flammable gas. Under slightly increased pressures Butane can be readily Liquefied and stored as a liquid-under-pressure. Butane is typically only handled in industrial facilities where safe conditions regarding ignition sources and ventilation are adequately controlled.

The flash point for Butane is approximately -80°C (-112°F).

4. Health Information

Butane is a gas at ambient temperature and pressure, exposure to Butane during manufacturing and use would most likely occur through inhalation. Butane is of low acute toxicity by all routes at levels typically found in the workplace or environment. At extremely high concentrations, well above recommended occupational exposure levels, Butane may cause drowsiness and lightheadedness. If the Butane has been liquefied (compressed), direct contact could result in frostbite-like burns to the eyes and/or skin.

5. Additional Hazard Information

Exposure to high levels of Butane vapors can result in asphyxia; it reduces the availability of oxygen in the breathing air. Inhalation of high levels can lead to nausea.

6. Food Contact Regulated Uses

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Appropriate manufacturing and distributions processes are employed to ensure the quality of this product when offered for use in indirect food contact applications.

7. Environmental Information

In the environment, Butane goes into the air. Once in the air, it rapidly degrades. Because the tendency of Butane to move from water to air, water contamination and chronic aquatic toxicity are not expected.

8. Exposure Potential

- **Workplace exposure** – This refers to potential exposure in a manufacturing facility or industrial workplace. Generally, exposure of personnel in manufacturing facilities is relatively low because the process, storage and handling operations are closed, with little potential for releases to the air. The American Conference of Government Industrial Hygienists recommends limiting occupational exposure to no more than 1000 parts per million (ppm) as a time-weighted average over an 8-hour work day. Since it is used in a closed process, exposures are unlikely to approach these levels.
- **Consumer use of products containing Butane** – This category of exposure is highly variable depending on the products used and the conditions under which they are used. Butane can be packaged for resale to the general public by our customers. Always follow the manufacturers' instructions for use of the product. Exposure to consumers is expected to be low, primarily because it is to be used in suitable burning devices. If exposure should occur, it is likely to be infrequent and of short duration. The best way to prevent exposure to vapors is to work in well-ventilated areas.
- **Environmental releases** – As a manufacturer, we are committed to operating in an environmentally responsible manner everywhere we do business. Our efforts are guided by in-depth scientific understanding of the environmental impact of our operations, as well as by the social and economic needs of the communities in which we operate. Industrial spills or releases are rare; however a spill or release may pose a significant flammability issue. Our operational improvement targets and plans are based on driving incidents with real environmental impact to zero and delivering superior environmental performance.

9. Manufacture of Product

- **Capacity** – SRI Consulting (<http://www.sriconsulting.com/>) indicates that in 2008, the worldwide consumption of Butane was over 10.6 million metric tons.
- **Process** – Butane is manufactured as part of processes found in petroleum refineries.

10. Risk Management

- **Workplace Risk Management** – When using Butane, make sure that there is adequate ventilation. If Butane is (inadvertently) released during use, avoid breathing the gas. If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Use non-sparking tools and explosion-proof equipment. Always use chemical resistant gloves to protect your hands and skin and always wear eye protection such as chemical goggles. Do not eat, drink, or smoke where Butane is handled, processed, or stored. Wash hands and skin following contact. If Butane gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. If liquid Butane contacts the skin or eyes, watch for frostbite and seek medical attention. Please refer to the Safety Data Sheet.
- **Consumer Risk Management** - This chemical may be repackaged and sold directly to the public for general consumer uses. Unintended release can lead to fire hazards. If exposure should occur, it is

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expected to be infrequent and of short duration. Always follow manufacturers' instructions, warnings and handling precautions when using their products. The best way to prevent exposure to vapors is to work in well-ventilated areas.

11. Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use and/or disposal of this chemical and may vary by city, state, country or geographic region. Additional helpful information may be found by consulting the relevant ExxonMobil Safety Data Sheet at:

- <http://www.msds.exxonmobil.com/psims/psims.aspx?brand=xomcc>

12. Conclusion Statements

- Butane is a chemical used for fuel purposes. It is sold to both industrial customers and may be repackaged and sold directly to the general public.
- Butane is not expected to cause adverse environmental effects at levels typically found in the workplace or environment.
- Butane is extremely flammable; use in closed systems, and only with good ventilation and avoid all ignition sources.

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