

# RWDSU FACT SHEET

Retail, Wholesale and Department Store Union/UFCW

## *DIACETYL*

### What is diacetyl?

Diacetyl is naturally formed in foods, but it is also used as a synthetic flavoring ingredient. Diacetyl gives butter and certain food flavorings a distinctive buttery flavor and aroma. Food flavorings containing diacetyl have been added to microwave popcorn, caramel vinegar, baked goods, butter and other dairy and food products.

### How do you know if you are exposed to diacetyl?

Diacetyl is a yellowish liquid. It is most often mixed with other ingredients. If diacetyl is included in products coming into your work place it must be listed on the Material Safety Data Sheet (MSDS). Workers have been exposed by breathing in vapors, droplets or dust containing diacetyl.

### What are the health effects of diacetyl?

Exposure to diacetyl may cause a serious lung disease called bronchiolitis obliterans. This condition occurs when the small airways in the lungs become inflamed and scarred. The airways thicken making breathing difficult. Symptoms can be mild to severe and do not improve away from work. Damage to the lungs can be permanent, can require a lung transplant and can lead to death.

Cases of bronchiolitis obliterans were diagnosed among workers at several facilities where microwave popcorn was produced using diacetyl. As a result the condition has been referred to as “popcorn lung”.

Exposure to diacetyl has also been associated with burning and/or stinging of the eyes, nose or throat. Eye contact with diacetyl vapors can also cause chemical burns. Skin exposure can cause a rash, dryness, redness, flaking or cracking.

### How can exposure to diacetyl be reduced?

Like other workplace hazards, the best way to reduce risk is to eliminate the exposure. Several companies have stopped using diacetyl as a food flavoring additive. If diacetyl is used, engineering controls should be in place. For example,

containers should be enclosed and local exhaust ventilation used to keep vapors away from workers. Because exposure limits have not been established personal protective equipment (respirators) may be needed. A National Institute of Occupational Safety and Health (NIOSH) certified air purifying respirator with organic vapor cartridges and particulate filters would provide minimal level of protection. Powered air-purifying respirators or supplied air respirators are also acceptable. Gloves and aprons made from butyl rubber, Teflon™ or Tychem™ are effective in reducing skin contact and helping prevent skin irritation.

For more information

Contact the RWDSU Health and Safety Department at (212) 684-5300  
[www.rwdsu.org](http://www.rwdsu.org).

This material has been funded in whole or in part with federal funds from the Occupational Safety and Health Administration, United States Department of Labor, under Susan Harwood grant #SH-16616-07-60-F-36. These materials do not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.