

## Product Safety Summary

### 4,4-Dichlorodiphenylsulfone

CAS No. 80-07-9

The Product Safety Summary is intended to provide a general overview of the chemical substance. The information on the summary is basic information and is not intended to provide emergency response information, medical information or treatment information. The summary should not be used to provide in-depth safety and health information. In-depth safety and health information can be found on the Material Safety Data Sheet (MSDS) for the chemical substance.

#### Names

- 1,1'-Sulfonylbis(4-chlorobenzene)
- 4,4'-DCDPS
- 4-Chloro-1-(4-chlorophenylsulfonyl) benzene
- 4-Chlorophenyl sulfone
- Bis(4-chlorophenyl) sulfone BCPS)
- Bis(p-chlorophenyl) sulfone
- Di-p-chlorophenyl sulfone
- Dichlorodiphenyl sulfone (DCDPS)
- p,p'-Dichlorodiphenyl sulfone
- p-Chlorophenyl sulfone
- Sulfone, bis(p-chlorophenyl) (6Cl, 8Cl)

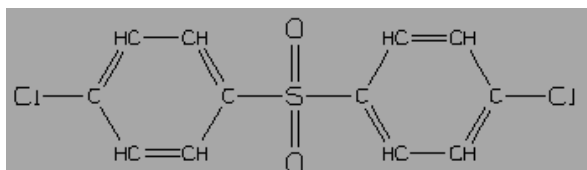
#### Product Overview

- **This product is not sold to the general public.** Solvay Advanced Polymers, L.L.C. uses it as a starting material to make polymers.
- Dichlorodiphenylsulfone (DCDPS) is used as starting material in the production of plastics or polymers, known as polysulfones, polyethersulfones and polyphenylsulfones. These polymers are used in a broad range of high temperature commercial applications.
- DCDPS is an off-white powder or pellets. It is odorless and is not volatile.
- DCDPS is not a cancer causing agent and tests show that it does not have a toxic effect on a developing child or fertility.
- The chemical has properties indicating it may be a hazard for the environment.

## Manufacture of Product

**Production Process:** Solvay uses proven technology in order to manufacture its chemicals in a safe and controlled manner. Solvay Advanced Polymers, L.L.C. is the only known company in the United States to manufacture this product.

Structure of DCDPS:



## Product Description

DCDPS, as produced, is an off-white powder or solid pellet. It is odorless and is not volatile.

## Product Uses

DCDPS is used as starting material in the production of polysulfones, polyethersulfones and polyphenylsulfones. These polymers are used in a broad range of high temperature commercial applications.

As described above, DCDPS is mainly used for production of polymers. However, it may also be used for manufacturing of 4,4'-diaminodiphenyl sulfone, which is used as anti-leprosy drug (Dapsone). According to Olsson et al. (1995) DCDPS may also be used as an additive in reactive dyes in the textile industry. However, Solvay Advanced Polymers L.L.C. does not sell into either of these markets.

## Exposure Potential

- **Workplace exposure** - DCDPS is usually handled as pellets and at some settings as a solid powder. Therefore, inhalation of dust is the most likely route of exposure. Potential exposure to DCDPS is limited to industrial settings.
- **Consumer exposure to products containing dichlorodiphenylsulfone** - DCDPS is not sold to the general public. DCDPS is used as a starting material in the production of polymers. DCDPS is consumed in the polymer, which means that it is unlikely that there is any unreacted or free DCDPS in final consumer products.

- **Environmental Releases** - DCDPS is not expected to be intentionally released to the environment during production processes or during transportation. If spilled, DCDPS should be swept up and put into a sealed container for proper disposal.
- **Spills and Releases** – If DCDPS is spilled for example during transport or in a manufacturing plant, the product should not be allowed to enter drains, water courses or the soil. In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State, and local laws and regulations.

### Health Information

DCDPS is not sold to the general public. DCDPS is not expected to be irritating to the eyes and skin and it is not expected to be sensitizing. Accidentally swallowing DCDPS one time in a small amount is not likely to cause injury. However, swallowing DCDPS repeatedly over a long period of time has been shown to cause effects on the liver in animals.

DCDPS is not considered a carcinogen meaning it does not cause cancer. DCDPS does not have a toxic effect on fertility or a developing child.

### Environmental Information

DCDPS is not sold to the general public. The chemical has properties indicating it may be a hazard for the environment. DCDPS is consumed in the polymer; which means that it is unlikely that there is any unreacted or free DCDPS in final consumer products.

DCDPS is considered stable in water, which means it will not degrade in water. DCDPS has been experimentally demonstrated to be not readily biodegradable in soil and sediment (activated sludge). This means it is not easily broken down by bacteria or enzymes in soil and sediment.

### Physical Hazard Information

DCDPS is stable under normal storage conditions. Take measures to prevent the buildup of electrostatic charge and keep away from open flames, hot surfaces, and sources of ignition. Avoid dust formation. Avoid contact with oxidizing agents. If working in an industrial setting handling DCDPS, please contact Solvay Advanced Polymers, L.L.C. to request the most current Material Safety Data Sheet (MSDS). The MSDS provides more detailed information on the physical hazards and safe handling practices.

## Regulatory Information

Regulatory information may vary by geographic location. Please consult the material safety data sheet for regulatory information in your area.

## Additional Information

- Solvay North America, LLC ([www.solvaynorthamerica.com](http://www.solvaynorthamerica.com))
- Solvay Advanced Polymers, L.L.C. ([www.solvayadvancedpolymers.com](http://www.solvayadvancedpolymers.com))
- This summary was prepared February, 2009.

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