

Dicyclopentadiene

Company Information

Sunchem Co.,Ltd.

Add: A-11F, 186 Yangtzi Middle Road, Yangzhou, China.

Tel:+86 514 87851548

Fax:+86 514 87872867

Email: info@sunchemgroup.com

Product Identification

【Product Name】

DCPD

【Synonyms】

IMO Pollution Category

1,3-Dicyclopentadiene dimer

3a,4,7,7a-Tetrahydro-4,7-methanoindene

Bicyclopentadiene

Cyclopentadiene dimer

【CAS】

77-73-6

【Formula】

C10H12

【Molecular Weight】

132.21

【EINECS】

201-052-9

【RTECS】

PC1050000

【RTECS Class】

Mutagen; Primary Irritant

【Merck】

13,2767

【Beilstein/Gmelin】

1904092

【Beilstein Reference】

2-05-00-00391

【EC Index Number】

601-044-00-9

【EC Class】

Highly flammable; Harmful; Irritant; Dangerous for the Environment

Physical and Chemical Properties

【Appearance】

Colorless liquid with a disagreeable, camphor-like odor.

【Solubility in water】

Insoluble

【Melting Point】

-1

【Boiling Point】

170

【Vapor Pressure】

2.3 (25 C)

【Density】

0.982 g/cm³ (20 C)

【Partition Coefficient】

2.89

【Heat Of Vaporization】

39.0 kJ/mol

【Heat Of Combustion】

-5774 kJ/mol

【Usage】

Monomer for ethylene-propylene terpolymer elastomers, dryer & hardener in linseed & soybean oil, curing agent in other elastomers.

【Saturation Concentration】

1800 ppm (0.18%) at 20 C (calculated)

【Vapor Density】

4.55

【Odor threshold】

0.003 ppm

【Refractive Index】

1.5050 (35 C)

First Aid Measures

【Ingestion】

DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and **IMMEDIATELY** call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician.

【Inhalation】

IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing,

shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used.

【Skin】

IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

【Eyes】

First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after

flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

Handling and Storage

【Storage】

Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Storage under a nitrogen blanket has been recommended. Containers should be dated when opened and tested periodically for the presence of peroxides. Should crystals form in a peroxidizable liquid, peroxidation may have occurred and the product should be considered extremely dangerous. In this instance, the container should only be opened remotely by professionals. All peroxidizable substances should be stored away from heat and light and be protected from ignition sources.

【Handling】

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and

explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Use and store under nitrogen. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist.

Hazards Identification

【Inhalation】

Coughing, choking, tachypnea, dyspnea, cyanosis, rales, hemoptysis, pulmonary edema, pneumatoceles, lipoid pneumonia, or respiratory arrest may develop following ingestion and aspiration.

【Skin】

Causes skin irritation. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts.

【Eyes】

Causes irritation.

【Ingestion】

Nausea, vomiting, diarrhea, and abdominal pain may occur following ingestion.

【Hazards】

Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area.

【EC Risk Phrase】

R 11 20/22 36/37/38 51/53

【EC Safety Phrase】

S 36/37 61

【UN (DOT)】

1992

Exposure Controls/Personal Protection

【Personal Protection】

Wear appropriate clothing to prevent any reasonable

probability of skin contact. Wear eye protection to prevent any possibility of eye contact.

【Respirators】

Air-supplied mask in confined areas, rubber gloves, safety glasses.

【Exposure Effects】

Mild central nervous system depression or excitation may occur after ingestion or vapor inhalation. CNS effects can occur secondary to hydrocarbon pneumonitis and hypoxia, or from additives and contaminants (aniline, heavy metals, camphor, or pesticides). Some hydrocarbons are simple asphyxiants (e.G., Methane, ethane, propane gasses) which can produce CNS effects secondary to hypoxia. In a prospective study in Toronto, major congenital malformations were noted in 13 of 125 fetuses of mothers exposed to organic solvents during pregnancy.

【Exposure limit(s)】

NIOSH REL: TWA 5 ppm (30 mg/m³)

【Poison Class】

3

Fire Fighting Measures

【Flash Point】

26

【Autoignition】

503

【Fire Fighting】

Do not extinguish fire unless flow can be stopped. Use water in flooding quantities as fog. Solid streams of water may spread fire. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. Use foam, dry chemical, or carbon dioxide.

【Upper exp. limit】

6.3

【Lower exp. limit】

.8

【Fire Potential】

FLAMMABLE.

Accidental Release Measures

【Small spills/leaks】

Keep sparks, flames, and other sources of ignition away. Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Attempt to stop leak if without undue personnel hazard. Use water spray to knock-down vapors.

Stability and Reactivity

【Disposal Code】

9

【Incompatibilities】

Strong oxidizing agents, polymerizing initiators.

【Stability】

Under normal storage conditions, peroxidizable compounds can form and accumulate peroxides which may explode when

subjected to heat or shock. This material is most hazardous when peroxide levels are concentrated by distillation or evaporation. DCPD will decompose to cyclopentadiene at temperatures > 150C.

【Decomposition】

Oxides of carbon.

【Combustion Products】

Fire may produce irritating, corrosive and/or toxic gases.

Transport Information

【UN Number】

1992

【Hazard Class】

3

【Packing Group】

III

【HS Code】

2902 19 90