Material Safety Data Sheet

Dicyclopentadiene, 95%, stabilized with 100-200 ppm p-tert-butylcatechol

MSDS# 69509

## Section 1 - Chemical Product and Company Identification

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| MSDS Name: | Dicyclopentadiene, 95%, stabilized with 100-200 ppm p-tert-butylcatechol |
| Catalog Numbers: | AC150760000, AC150760010, AC150760025, AC150760050, AC150761000 |
| Synonyms: | Cyclopentadiene dimer; 3a,4,7,7a-Tetrahydro-4,7-methanoindene; DCPD. |
| Company Identification: | Acros Organics BVBA<br>Janssen Pharmaceuticalaan 3a<br>2440 Geel, Belgium |
| Company Identification: (USA) | Acros Organics<br>One Reagent Lane<br>Fair Lawn, NJ 07410 |
| For information in the US, call: | 800-ACROS-01 |
| For information in Europe, call: | +32 14 57 52 11 |
| Emergency Number, Europe: | +32 14 57 52 99 |
| Emergency Number US: | 201-796-7100 |
| CHEMTREC Phone Number, US: | 800-424-9300 |
| CHEMTREC Phone Number, Europe: | 703-527-3887 |

## Section 2 - Composition, Information on Ingredients

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Risk Phrases:

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|---|---|
| CAS#: | 77-73-6 |
| Chemical Name: | Dicyclopentadiene |
| %: | 95 |
| EINECS#: | 201-052-9 |
| Hazard Symbols: | |

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Risk Phrases:

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|---|---|
| CAS#: | 98-29-3 |
| Chemical Name: | 4-tert-Butylcatechol |
| %: | 0.015 |
| EINECS#: | 202-653-9 |
| Hazard Symbols: | |

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Text for R-phrases: see Section 16

Hazard Symbols: XN N

Risk Phrases: 10 19 20/22 36/37/38 51/53

## Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. May form explosive peroxides. Harmful if inhaled or swallowed. Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

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| Eye: | Causes eye irritation. |
| Skin: | Causes skin irritation. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts. |
| Ingestion: | Harmful if swallowed. May cause digestive tract disturbances. May cause central nervous system depression. |
| Inhalation: | Causes respiratory tract irritation. May cause headache. Overexposure produces central nervous system depression. |
| Chronic: | |

## Section 4 - First Aid Measures

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| Eyes: | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid. |
| Skin: | In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. |
| Ingestion: | If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid. |
| Inhalation: | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. |
| Notes to Physician: | Treat symptomatically and supportively. |

## Section 5 - Fire Fighting Measures

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| General Information: | As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Liquid will float and may reignite on the surface of water. Flammable liquid and vapor. May polymerize explosively when involved in a fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. May accumulate static electricity. |
| Extinguishing Media: | For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Water may be ineffective. |
| Autoignition Temperature: | 503 deg C ( 937.40 deg F) |
| Flash Point: | 26 deg C ( 78.80 deg F) |
| Explosion Limits: Lower: | 0.8 vol % |
| Explosion Limits: Upper: | 6.3 vol % |
| NFPA Rating: | health: 2; flammability: 3; instability: 1; |

## Section 6 - Accidental Release Measures

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| General Information: | Use proper personal protective equipment as indicated in Section 8. |
| Spills/Leaks: | Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. |

## Section 7 - Handling and Storage

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| 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. |
| | 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. |

Storage: 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.

## Section 8 - Exposure Controls, Personal Protection

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---|---|---|---|
| Dicyclopentadiene | 5 ppm | 5 ppm TWA; 30 mg/m3 TWA | none listed |
| 4-tert-Butylcatechol | none listed | none listed | none listed |

OSHA Vacated PELs: Dicyclopentadiene: 5 ppm TWA; 30 mg/m3 TWA 4-tert-Butylcatechol: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

## Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: clear, colorless

Odor: disagreeable odor - camphor

pH: Not available

Vapor Pressure: 2.29 mm Hg @ 25 deg C

Vapor Density: 4.6 (air=1)

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 170 deg C @ 760 mm Hg ( 338.00°F)

Freezing/Melting Point: -1 deg C ( 30.20°F)

Decomposition Temperature:

Solubility in water: Insoluble

Specific Gravity/Density: 0.98

Molecular Formula: C10H12

Molecular Weight: 132.20

## Section 10 - Stability and Reactivity

Chemical 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 > 150°C.

Conditions to Avoid: Ignition sources, excess heat, evaporating to near dryness, prolonged exposure to air, loss of inhibitor.

Incompatibilities with Other Materials: Strong oxidizing agents, polymerizing initiators.

Hazardous Decomposition: Carbon monoxide, carbon dioxide.

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| Products | |
| Hazardous Polymerization | May occur. |

## Section 11 - Toxicological Information

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| RTECS#: | CAS# 77-73-6: PC1050000<br>CAS# 98-29-3: UX1400000 |
| LD50/LC50: | RTECS:<br>**CAS# 77-73-6:** Draize test, rabbit, skin: 20 mg/24H Moderate;<br>Inhalation, mouse: LC50 = 145 ppm/4H;<br>Inhalation, mouse: LC50 = 400 mg/m3/2H;<br>Inhalation, rabbit: LC50 = 771 ppm/4H;<br>Inhalation, rabbit: LC50 = 4200 mg/m3;<br>Inhalation, rat: LC50 = 660 ppm/4H;<br>Inhalation, rat: LC50 = 610 mg/m3/4H;<br>Oral, mouse: LD50 = 190 mg/kg;<br>Oral, rat: LD50 = 353 mg/kg;<br>Oral, rat: LD50 = 520 mg/kg;<br>Oral, rat: LD50 = 370 mg/kg;<br>Skin, rabbit: LD50 = 5080 mg/kg;<br>Skin, rabbit: LD50 = 5.08 mL/kg;<br>.<br>RTECS:<br>**CAS# 98-29-3:** Draize test, rabbit, skin: 750 ug/24H Severe;<br>Oral, rat: LD50 = 2820 mg/kg;<br>Skin, rabbit: LD50 = 630 uL/kg;<br>. |
| Carcinogenicity: | Dicyclopentadiene - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.<br>4-tert-Butylcatechol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. |
| Other: | See actual entry in RTECS for complete information. |

## Section 12 - Ecological Information

Not available

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

US DOT
Shipping Name: FLAMMABLE LIQUIDS, TOXIC, N.O.S.
Hazard Class: 3
UN Number: UN1992
Packing Group: III
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

## Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

Risk Phrases:

R 10 Flammable.

R 19 May form explosive peroxides.

R 20/22 Harmful by inhalation and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 36/37 Wear suitable protective clothing and gloves.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 77-73-6: 2

CAS# 98-29-3: Not available

Canada

CAS# 77-73-6 is listed on Canada's DSL List

CAS# 98-29-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D2B, D1B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 77-73-6 is listed on Canada's Ingredient Disclosure List

CAS# 98-29-3 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 77-73-6 is listed on the TSCA Inventory.

CAS# 98-29-3 is listed on the TSCA Inventory.

## Section 16 - Other Information

MSDS Creation Date: 2/09/1998

Revision #7 Date 7/20/2009



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