**Chemical Name:** Di-n-butylmalonic Acid Diethyl Ester  
**Catalog Number:** D1184  
**Synonym:** Diethyl Di-n-butylmalonate  
**Chemical Formula:** \([\text{CH}_3(\text{CH}_2)_3\text{C}[\text{COOC}_2\text{H}_5]_2]\)  
**CAS Number:** 596-75-8  

The health risks of this compound have not been fully determined. Exposure may cause irritation of the skin, eyes, and respiratory system.

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**Section II. Composition and Information on Ingredients**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Percent (%)</th>
<th>TLV/PEL</th>
<th>Toxicology Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di-n-butylmalonic Acid Diethyl Ester</td>
<td>596-75-8</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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**Section III. Hazards Identification**

**Acute Health Effects:** No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.

**Chronic Health Effects:**
- CARCINOGENIC EFFECTS: Not available.
- MUTAGENIC EFFECTS: Not available.
- TERATOGENIC EFFECTS: Not available.
- DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

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**Section IV. First Aid Measures**

**Eye Contact:** Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.

**Skin Contact:** If the chemical gets spilled on a clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.

**Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform artificial respiration. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

**Ingestion:** INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

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**Section V. Fire and Explosion Data**

**Flammability:** May be combustible at high temperature.  
**Auto-Ignition:** Not available.  
**Flash Points:** Not available.  
**Flammable Limits:** Not available.  
**Combustion Products:** These products are toxic carbon oxides (CO, CO₂).  
**Fire Hazards:** No specific information is available regarding the flammability of this compound in the presence of various materials.

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Emergency phone number (800) 424-9300
Explosion Hazards
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.
No additional information is available regarding the risks of explosion.

Fire Fighting Media and Instructions
SMALL FIRE: Use DRY chemicals, CO₂, water spray or foam.
LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.

Section VI. Accidental Release Measures
Spill Cleanup Instructions
Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage
Handling and Storage Information
Keep container dry. Keep away from heat and sources of ignition. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe gas, fumes, vapor or spray. Never add water to this product. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents.

Section VIII. Exposure Controls/Personal Protection
Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection
Splash goggles. Lab coat. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
Not available.

Section IX. Physical and Chemical Properties
Physical state @ 20°C
Liquid.
Specific Gravity
0.95
Molecular Weight
272.38
Boiling Point
Not available.
Melting Point
Not available.
Refractive Index
Not available.
Critical Temperature
Not available.
Viscosity
Not available.

Solubility
Not available.
Partition Coefficient
Not available.
Vapor Pressure
Not available.
Vapor Density
Not available.
Volatility
Not available.
Odor
Not available.
Taste
Not available.

Section X. Stability and Reactivity Data
Stability
This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability
Avoid excessive heat and light.
Incompatibilities
Reactive with oxidizing agents.

Section XI. Toxicological Information
RTECS Number
Not available.
Routes of Exposure
Eye contact. Ingestion. Inhalation.
Toxicity Data
Not available.

Chronic Toxic Effects
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Acute Toxic Effects
No specific information is available in our database regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.

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Section XII. Ecological Information

Ecotoxicity
Not available.

Environmental Fate
Not available.

Section XIII. Disposal Considerations

Waste Disposal
Recycle to process, if possible. Consult your local or regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state, and local regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification
Not a DOT controlled material (United States).

PIN Number
Not applicable.

Proper Shipping Name
Not applicable.

Packing Group (PG)
Not applicable.

DOT Pictograms

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)
This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

WHMIS Classification (Canada)
Not available.

EINECS Number (EEC)
Not available.

EEC Risk Statements
Not available.

Japanese Regulatory Data
Not available.

Section XVI. Other Information

Version 1.0
Printed 2/7/2005.

Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

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