

# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
 	<b>POSSIBLE CARCINOGEN.</b> Harmful compound, minimize exposure.	   

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Adipic Acid Di(2-ethylhexyl) Ester</b>		
Catalog Number	A0163	Supplier	TGI America 9211 N. Harbortgate St. Portland OR 1-800-423-8616
Synonym	Adipic Acid Dioctyl Ester; Bis(2-ethylhexyl) Adipate		
Chemical Formula	(-CH <sub>2</sub> CH <sub>2</sub> COOC <sub>8</sub> H <sub>17</sub> ) <sub>2</sub>		
CAS Number	103-23-1	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Adipic Acid Di(2-ethylhexyl) Ester	103-23-1	Min. 98.0 (GC)	This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen.	Rat LD <sub>50</sub> (oral) 9100 mg/kg Rat LD <sub>50</sub> (intraperitoneal) >50 mg/kg Rat LD <sub>50</sub> (intravenous) 900 mg/kg

## Section III. Hazards Identification

Acute Health Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<b>CARCINOGENIC EFFECTS</b> : Classified as Group 3 (limited evidence of carcinogenicity in animals and no evidence in humans) by the IARC. Carcinogenic by RTECS criteria. Tumorigenic: Mouse (oral) 1038 gm/kg/2Y-C <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. Toxicity to the reproductive system: Not available.

## 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. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	If the victim is not breathing, perform artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention. Treat symptomatically and supportively.
Ingestion	Remove dentures if any. Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. NEVER give an unconscious person anything to ingest. Seek medical attention. Treat symptomatically and supportively.

## Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	closed cup: 196°C (384.8°F) open cup: 205°C (401°F)	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
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, CO <sub>2</sub> , water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.		

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Emergency phone number (800) 424-9300

**Section VI. Accidental Release Measures**

Spill Cleanup Instructions  
 Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. DO NOT touch damaged container or spilled material. Call for assistance on disposal.

**Section VII. Handling and Storage**

Handling and Storage Information  
 POSSIBLE CARCINOGEN. Harmful. 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. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Avoid contact with skin and eyes.  
 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. Vapor respirator. Boots. Gloves. A MSHA/NIOSH approved respirator should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.



Exposure Limits  
 This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen.

**Section IX. Physical and Chemical Properties**

Physical state @ 20°C	Liquid.	Solubility	Soluble in methanol, diethyl ether, acetone. Insoluble in cold water, hot water.
Specific Gravity	0.93		
Molecular Weight	370.57	Partition Coefficient	>6.11
Boiling Point	214°C @ 5mmHg	Vapor Pressure	0.00000085 mm of Hg (@ 20°C)
Melting Point	-67.8°C (-90°F)	Vapor Density	12.8 (Air = 1)
Refractive Index	1.4474	Volatility	Not available.
Critical Temperature	Not available.	Odor	Aromatic. (Slight.)
Viscosity	13.7 mm <sup>2</sup> /S	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 strong oxidizing agents.

**Section XI. Toxicological Information**

RTECS Number  
 AU9700000

Routes of Exposure  
 Ingestion. Inhalation. Eye contact. Skin contact.

Toxicity Data  
 Rat LD<sub>50</sub> (oral) 9100 mg/kg  
 Rat LD<sub>50</sub> (intraperitoneal) >50 mg/kg  
 Rat LD<sub>50</sub> (intravenous) 900 mg/kg

Chronic Toxic Effects  
**CARCINOGENIC EFFECTS** : Classified as Group 3 (limited evidence of carcinogenicity in animals and no evidence in humans) by the IARC. Carcinogenic by RTECS criteria.  
 Tumorigenic: Mouse (oral) 1038 gm/kg/2Y-C  
**MUTAGENIC EFFECTS** : Not available.  
**TERATOGENIC EFFECTS** : Not available.  
 Toxicity to the reproductive system: Not available.

Acute Toxic Effects  
 Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

**Section XII. Ecological Information**

Ecotoxicity Not available.

Environmental Fate If released to land or water, the dominant degradation process for this compound is expected to be microbial degradation. It should be relatively immobile and should not leach through soil, but is readily biodegradable. It will partition from the water column to sediment and suspended material. Volatilization is expected to be very slow and not environmentally important. If released to the atmosphere, it should exist in both the vapor and particulate phase. At 20°C, the vapor phase may dominate.

**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 this substance.

**Section XIV. Transport Information**

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

PIN Number NONE

Proper Shipping Name NONE

Packing Group (PG) NONE

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

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

WHMIS Classification (Canada) Not available.

EINECS Number (EEC) Not available.

EEC Risk Statements R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.  
R45- May cause cancer.

Japanese Regulatory Data Not available.

**Section XVI. Other Information****Version 1.0**

**Validated on 3/11/1997.**

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**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.