



# MATERIAL SAFETY DATA SHEET

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## SECTION 1 – CHEMICAL IDENTIFICATION

Trade Name: Methylhexahydrophthalic Anhydride (MHHPA)      Date of Issue: October 2, 1991  
Revised Date: May 6, 1999  
Formula:  $C_9H_{12}O_3$   
Chemical Family: Alicyclic Anhydride  
Telephone Number: Information      (281) 474-3271  
**Emergency Number: Chemtrec      (800) 424-9300**

HMIS Hazard Rating      4 = Extreme  
Health: 2      3 = High  
Fire: 1      2 = Moderate  
Reactivity: 1      1 = Slight  
PPE rating to be supplied by user      0 = Least  
depending on use conditions.

## SECTION 2 – COMPOSITION

<u>Components</u>	<u>Percentage</u>	<u>TLV (ppm)</u>	<u>CAS #</u>
Methylhexahydrophthalic anhydride	>95	N.E.	25550-51-0

Note: N.E. = Not Established    N/A = Not Applicable

## SECTION 3 – HAZARDS IDENTIFICATION

Eye Contact: May cause severe irritation, redness, pain, blurred vision, and tearing. Corneal injury and burns are also possible.

Skin Contact: May cause irritation. Prolonged contact with skin may cause severe irritation and burns. May cause skin sensitization. May aggravate pre-existing skin disorders.

Inhalation: May cause respiratory tract irritation, sneezing, and coughing. May cause respiratory tract sensitization. May aggravate pre-existing respiratory disorders. Chronic exposure may cause bronchitis and asthma.

Ingestion: May cause irritation of the mouth, throat, and gastrointestinal tract.

## SECTION 4 – FIRST AID MEASURES

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: Immediately remove contaminated clothing and shoes. Wipe excess material from

skin and flush with water for at least 15 minutes. Use soap if available or follow by washing with soap and water. Do not reuse contaminated clothing without laundering. If irritation persists, seek medical advice.

Inhalation: Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, administer artificial respiration. Get medical attention.

Ingestion: Get medical attention immediately.

## **SECTION 5 – FIREFIGHTING MEASURES**

Extinguishing Media: Use water, foam, dry chemical, or carbon dioxide (CO<sub>2</sub>).

Special Firefighting Procedures/Precautions: Firefighters should wear NIOSH approved self-contained breathing apparatus. Responders should wear protective clothing to prevent skin contact. Move containers from fire area. If unable to move, cool sealed containers with water.

Unusual Fire and Explosion Information: This material reacts with water or steam to form methylhexahydrophthalic acid. This reaction is slightly exothermic. It should not present any problems if large quantities of water are used.

Environmental Note: N/A.

## **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

Contain and recover. Prevent from entering sewers and waterways. Clean-up personnel should wear protective equipment to prevent contact.

## **SECTION 7 – HANDLING AND STORAGE**

Containers should be grounded and/or bonded when material is transferred. Store in a cool, dry place. Keep away from heat, sparks, and flames.

## **SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Respiratory Protection: NIOSH approved respiratory protection for organic vapors.

Ventilation: Utilize local exhaust to control vapors. Do not rely on general exhaust.

Protective Gloves: Utilize appropriate impervious chemical gloves.

Eye Protection: Chemical goggles and face shield.

Other Protective Equipment: Wear additional protective clothing to prevent skin contact. This may include aprons, chemical resistant boots, and chemical resistant suits.

Work Practices: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

## **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: 145°C @ 3 mm Hg

Melting Point:	N.E.
Volatility/Vol (%):	100
Vapor Pressure (mm Hg):	3 @ 145°C
Vapor Density (Air = 1):	>1
Solubility in H <sub>2</sub> O:	Reacts slowly with water.
Appearance/Odor:	Clear liquid. Irritating odor when hot.
Specific Gravity (H <sub>2</sub> O = 1):	1.16 @ 20°C
Evap. Rate (Butyl Acetate = 1):	N.E.
Flash Point:	300°F (149°C) PMCC, ASTM D93
Lower Explosive Limit:	N.E.
Upper Explosive Limit:	N.E.
Autoignition Temperature:	N.E.

## **SECTION 10 – STABILITY AND REACTIVITY**

Chemical Stability:	Stable.
Conditions to Avoid:	N/A.
Incompatible Materials:	Water, alcohols, acids, bases, and oxidizers.
Decomposition Products:	Oxides of carbon. Occurs above 220°C.
Hazardous Polymerization:	Will not occur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

ACGIH TLV: N.E. STEL: N.E.

OSHA PEL: N.E. STEL: N.E.

The toxicological effects of methylhexahydrophthalic anhydride have not been thoroughly investigated. Hexahydrophthalic anhydride, a chemical similar to methylhexahydrophthalic anhydride, has an oral LD50 of 3307 mg/kg in rats and an dermal LD50 of >2000 mg/kg in rabbits.

Carcinogenicity listed by: NTP: No IARC: No OSHA: No

## **SECTION 12 – ECOLOGICAL INFORMATION**

No data available.

## **SECTION 13 – DISPOSAL INFORMATION**

Place in a city, state, or federally permitted disposal facility. Handle in accordance with all applicable regulations.

## **SECTION 14 – TRANSPORTATION INFORMATION**

DOT Shipping Name: Not hazardous per DOT guidelines.

## **SECTION 15 – REGULATORY INFORMATION**

**U.S. Regulations:**

TSCA: All components are listed on the TSCA inventory.

**SARA TITLE III**

Acute: Yes  
 Chronic: Yes  
 Fire: No  
 Reactivity: Yes  
 Pressure: No

TSCA 12(b) Export Notification: Not Listed

California Proposition 65: Not Listed

**European Regulations:**

EINECS Number: Methylhexahydrophthalic Anhydride: 247-094-1

**Canadian Regulations:**

Methylhexahydrophthalic anhydride is listed on the DSL.

**Japanese Regulations:**

Methylhexahydrophthalic anhydride is listed on the ENCS.

ENCS Number: Methylhexahydrophthalic Anhydride: 3-2450

**Australian Regulations:**

Methylhexahydrophthalic anhydride is not listed on the AICS.

**Korean Regulations:**

Methylhexahydrophthalic anhydride is listed on the ECL.

ECL Number: Methylhexahydrophthalic Anhydride: KE-18585

**SECTION 16 – OTHER INFORMATION****PPE Codes (NPCA-HMIS)**

<b>A</b> – Glasses	<b>G</b> – Glasses, Gloves, Vapor Respirator
<b>B</b> – Glasses, Gloves	<b>H</b> – Goggles, Gloves, Apron, Vapor Respirator
<b>C</b> – Glasses, Gloves, Apron	<b>I</b> – Glasses, Gloves, Dust/Vapor Respirator
<b>D</b> – Faceshield, Gloves, Apron	<b>J</b> – Goggles, Gloves, Apron, Dust/Vapor Respirator
<b>E</b> – Glasses, Gloves, Dustmask	<b>K</b> – Supplied Air, Gloves, Full Protective Suit, Boots
<b>F</b> – Glasses, Gloves, Apron, Dust Respirator	

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