

# MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-101/101-77-9.html> for suppliers of this product.

## Composition/Information on Ingredient

**Cas:**  
101-77-9  
**Code:**  
M

**RTECS:**  
BY5425000  
**Code:**  
M

**Name:**  
4,4'-METHYLENE DIANILINE (SARA III)

**Other REC Limits:**  
N/P

**OSHA PEL:**  
NOT ESTABLISHED  
**Code:**  
M

**OSHA STEL:**

**Code:**  
2

**ACGIH TLV:**  
S; 0.1 PPM; A2; 9192  
**Code:**  
M

**ACGIHSTEL:**  
N/P  
**Code:**

## Control Measures

**Respiratory Protection:**  
IF >TLV'S, USE NIOSH/MSHA APPROVED RESPIRATOR TO PREV. OVEREXPOSURE.

**Ventilation:**  
PROVIDE ADEQ, EXPLOSION-PROOF VENT. TO KEEP BELOW TLV'S

**Protective Gloves:**  
BUTYL

**Eye Protection:**  
CHEMICAL GOGGLES

**Other Protective Equipment:**  
Equipment WEAR IMPERVIOUS PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT.

**Work Hygienic Practices:**  
N/P

**Supplemental Safety and Health:**  
MSDS DATED: NOV 1985. 2 PART POLYURETHANE ADHESIVE CEMENT FOR FUEL SYSTEM REPAIR.

## Health Hazards Data

**LD50LC50Mixture:**  
N/P

**Route Of Entry Inds - Inhalation:**  
N/P

**Skin:**  
N/P

**Ingestion:**  
N/P

**Carcinogenicity Inds - NTP:**  
N/P

**IARC:**  
N/P

**OSHA:**  
N/P

**Health Hazards Acute And Chronic:**  
N/P

**Explanation Of Carcinogenicity:**  
N/P

**Signs And Symptions Of Overexposure:**  
INHALATION, SKIN ABSORPTION. EYE IRRITATION. FEVER/CHILLS/ANOREXIA/NAUSEA/RESPIRATORY IRRITATION. 3

**Medical Cond Aggravated By Exposure:**  
N/P

**First Aid:**  
INHALATION: IF AFFECTED, REMOVE TO FRESH. SKIN: WASH EXPOSED AREA W/SOAP & WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE. EYE: FLUSH W/WATER. INGESTION: GIVE 2 GLASS ES OF WATER. INDUCE VOMITING. CALL A PHYSICIAN.

**Spill Release Procedures:**  
REMOVE ALL IGNITION SOURCES. PROVIDE ADEQ. VENT. USE PERSONAL PROTECTIVE GEAR AS NECSARY. CONTAIN/LOCALIZE SPILL W/ABSORBENTS. PREV. DISCHARGE TO STORM/SANIRY SEWER. STORE SPENT SORBENT IN CONTAINER A PPROVED FOR STORAGE OF FLAMMATERIAL.

**Neutralizing Agent:**  
N/P

**Waste Disposal Methods:**  
INCINERATE AT FACILITY APPROVED FOR HAZARDOUS WASTE DISPOSAL BY FEDERAL, STATE & LOCAL REGULATIONS. LANDFILL PRODUCT OR CONTAMINATED SORBENT OR SOIL ONLY WHEN SOLIDIFIED W/NO FREE LIQUIDS REMAINING/TH EN IN HAZARDOUS WASTE DISPOSAL LANDFILL.

**Handling And Storage Precautions:**  
STORAGE AREA SHOULD BE WELL VENTILATED. STORE AWAY FROM SOURCES OF HEAT OR OPEN FLAMES. KEEP CTAINER CLOSED WHEN NOT IN USE.

**Other Precautions:**  
N/K

## Fire and Explosion Hazard Information

**Flash Point Method:**  
N/P

**Flash Point:**

**Flash Point Text:**  
21F CC

**Autoignition Temp:**

**Autoignition Temp Text:**  
N/A

**Lower Limits:**  
12%

**Upper Limits:**  
20%

**Extinguishing Media:**  
4 AALCOHOL FOAM, CO2, DRY CHEMICAL

**Fire Fighting Procedures:**  
USE A SCBA W/A FULL FACEPIECE UNDER POSITIVE PRESSURE.

**Unusual Fire/Explosion Hazard:**  
MAY TRAVEL ALONG THE GROUND/MAY BE MOVED BY VENT/IGNITED AT LOCATIONS DISTANT FROM THE MATERIAL.

## Physical/Chemical Properties

**HCC:**

**NRC/State LIC No:**  
5

**Net Prop WT For Ammo:**

**Boiling Point:**

**B.P. Text:**  
N/K

**Melt/Freeze Pt:**

**M.P/F.P Text:**  
N/A

**Decomp Temp:**

**Decomp Text:**  
N/A

**Vapor Pres:**  
70.

**Vapor Density:**  
>1

**Volatile Org Content %:**

**Spec Gravity:**  
0.864

**VOC Pounds/Gallon:**

**PH:** N/P

**VOC Grams/Liter:**

**Viscosity:**  
N/P

**Evaporation Rate & Reference:**  
N/K

**Solubility in Water:**  
SOLUBLE

**Appearance and Odor:**  
AMBER LIQUID, METHYL ETHYL KETONE ODOR.

**Percent Volatiles by Volume:**  
85.7

**Corrosion Rate:**  
N/P

## Reactivity Data

**Stability Indicator:**  
YES

**Stability Condition To Avoid:**  
KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME.

**Materials To Avoid:**  
STRONG OXIDIZING

**Hazardous Decomposition Products:**  
CO, CO2, NOX

**Hazardous Polymerization Indicator:**  
N/P

**Conditions To Avoid Polymerization:**  
N/K

## Toxicological Information

**Information:**N/P

## MSDS Transport Information

**Information:**N/P

## Regulatory Information

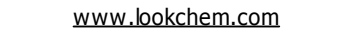
**Sara Title III Information:** N/P

**Federal Regulatory Information:** N/P

**State Regulatory Information:** N/P

## Other Information

**Other Information:**N/P



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