

# MATERIAL SAFETY DATA SHEET

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

click <http://www.lookchem.com/cas-512/51295-49-5.html> for suppliers of this product.

### Composition/Information on Ingredient

31295-49-5

**Code:**  
M

**RTECS:**

**Code:**  
X

**Name:**  
1,2-ETHANEDIAMINE, N-(2-AMINETHYL)-N'-(2-(1-PIPER

**Other REC Limits:**  
N/K

**OSHA PEL:**  
N/K

**Code:**  
M

**OSHA STEL:**

**Code:**

**ACGIH TLV:**  
N/K

**Code:**  
M

**ACGIHSTEL:**  
N/P

**Code:**

## Control Measures

USE AN APPROVED FULL-FACE AIR-PURIFYING RESPIRATOR.

**Ventilation:**  
4 PROVIDE ADEQUATE LOCAL EXHAUST VENTILATION TO KEEP

**Protective Gloves:**  
IMPERVIOUS

**Eye Protection:**  
FACESHIELD, CHEMICAL GOGGLES

**Other Protective Equipment:**  
Equipment BOOTS, APRON, FULL-BODY SUIT, SAFETY SHOWER, EYE WASH FOUNTAIN

**Work Hygienic Practices:**  
REMOVE & LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. DESTROY SHOES/OTHER LEATHER ITEMS WHICH CAN'T BE DECONTAMINATED.

**Supplemental Safety and Health:**  
N/K

## Health Hazard Data

**ORAL LD50(RAT):** 2140-3990 MG/KG  
**Route Of Entry Inds - Inhalation:**  
 YES  
**Skin:**  
 YES  
**Ingestion:**  
 NO  
**Carcinogenicity Inds - NTP:**  
 NO  
**IARC:**  
 NO  
**OSHA:**  
 NO  
**Health Hazards Acute And Chronic:**  
 EYES: SEVERE IRRITATION W/CORNEAL INJURY, PERMANENT VISION IMPAIRMENT, BLINDNESS. SKIN: ABSORPTION, BURNS, ALLERGIC REACTION. INGESTION: GASTROINTESTINAL IRRITATION, ULCERATION, MOUTH & THROAT BURNS. INHALATION: UPPER RESPIRATORY TRACT SENSITIZATION & IRRITATION. RESULTS OF IN VITRO MUTAGENICITY TESTS POSITIVE.  
**Explanation Of Carcinogenicity:**  
 NONE  
**Signs And Symptoms Of Overexposure:**  
 IRRITATION, BURNS, ULCERATION, SENSITIZATION 3  
**Medical Cond Aggravated By Exposure:**  
 ASTHMA  
**First Aid:**  
 EYES: WASH W/WATER >30 MINS. SKIN: FLUSH W/WATER >15 MINS. INGESTION: DON'T INDUCE VOMITING. GIVE LARGE AMOUNTS WATER/MILK. INHALATION: MOVE TO FRESH AIR. OBTAIN MEDICAL ATTENTION IN ALL CASES. PHYSIC IAN'S NOTE: MAY CAUSE TISSUE DESTRUCTION LEADING TO STRICTURE. IF LAVAGE IS PERFORMED USE ENDOTRACHEAL/ESOPHAGOSCOPIC CONTROL. IF BURNS TREAT AS THERMO BURN AFTER DECONTAMINATION. NO SPECIFIC ANTIDOTE  
**Spill Release Procedures:**  
 WEAR APPROPRIATE PROTECTIVE CLOTHING. LARGE: DIKE & PUMP INTO SUITABLE CONTAINERS. SMALL: DILUTE W/WATER & RECOVER/USE NONCOMBUSTIBLE ABSORBENT MATERIAL/SAND & SHOVEL INTO SUITABLE CONTAINERS. DON'T U SE SAWDUST, WOOD CHIPS/OTHER CELLULOSIC MATERIALS.  
**Neutralizing Agent:**  
 N/K  
**Waste Disposal Methods:**  
 LARGE QUANTITIES COULD BE RECOVERED. INCINERATE IN ACCORDANCE W/FEDERAL, STATE & LOCAL REGULATIONS. DON'T DUMP INTO SEWERS, ON THE GROUND/INTO ANY BODY OF WATER.  
**Handling And Storage Precautions:**  
 HOLD BULK STORAGE UNDER NITROGEN BLANKET. COPPER & ALLOYS OF COPPER SHOULD NOT BE USED AS THEY ARE QUICKLY CORRODED BY THE PRODUCT.  
**Other Precautions:**  
 GROUND ALL TRANSFER EQUIPMENT.

## Flash Point Method:

<b>Flash Point:</b>	
<b>Flash Point Text:</b>	
350F	
<b>Autoignition Temp:</b>	
<b>Autoignition Temp Text:</b>	
N/A	
<b>Lower Limits:</b>	
N/R	
<b>Upper Limits:</b>	
N/R	
<b>Extinguishing Media:</b>	
WATER FOG, ALCOHOL FOAM, CO2, DRY CHEMICAL	
<b>Fire Fighting Procedures:</b>	
USE A POSITIVE-PRESSURE SCBA & FULL PROTECTIVE CLOTHING.	
<b>Unusual Fire/Explosion Hazard:</b>	
WILL BURN UNDER THE RIGHT CONDITIONS OF HEAT & OXYGEN SUPPLY. CAN AUTOIGNITE IN AIR AT APPROXIMATELY 572F.	
<b>Physical/Chemical Properties</b>	

**HCC:**  
B2

**NRC/State LIC No:**

**Net Prop WT For Ammo:**

**Boiling Point:**  
>265.C, 509.F

**B.P. Text:**

**Melt/Freeze Pt:**

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

**Decomp Temp:**

**Decomp Text:**  
N/K

**Vapor Pres:**  
<1

**Vapor Density:**  
6.53

**Volatile Org Content %:**

**Spec Gravity:**  
0.989-0.995

**VOC Pounds/Gallon:**

**PH:** N/K

**VOC Grams/Liter:**

**Viscosity:**  
N/P

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

**Solubility in Water:**  
COMPLETE

**Appearance and Odor:**  
AMBER COLORED LIQUID W/AMINE ODOR

**Percent Volatiles by Volume:**  
N/K

**Corrosion Rate:**  
N/K

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**Reactivity Data**

Stable, indicated:  
YES

EXCESSIVE HEAT

**Materials To Avoid:**  
ACID, OXIDIZING MATERIAL, HALOGENATED ORGANIC COMPOUNDS, ALDEHYDES, KETONES, ACRYLATES, COPPER & COPPER ALLOYS

**Hazardous Decomposition Products:**  
NITROGEN OXIDES

**Hazardous Polymerization Indicator:**  
NO

**Conditions To Avoid Polymerization:**  
N/K 5

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## Toxicological Information

## MSDS Transport Information

**Information:**N/P

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

**Federal Regulatory Information:** N/P

**State Regulatory Information:** N/P

## Other Information

Other information: ☐