



**HK100-BP**  
**Material Safety Data Sheet**

**Section I Product and Company Identification**

<b>Manufacturer</b>	Zyvex Performance Materials
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<b>Email</b>	safety@zyvexpro.com
<b>Product Name</b>	HK100-BP
<b>Chemical Name</b>	Mixture of Amines
<b>Issue Date</b>	October 22, 2009

**Section II Physical/Chemical Characteristics**

<b>Appearance/Odor</b>	Translucent amber colored gel with ammonia like odor
<b>Solubility in water</b>	< 10%
<b>Specific gravity</b>	<1.0
<b>Vapor pressure</b>	Not Available
<b>Vapor density</b>	>1
<b>Evaporation rate</b>	Not available
<b>Boiling point</b>	> 260°C (500°F)
<b>Freezing point</b>	Not available

**Section III Hazardous Ingredients**

<b>Substance</b>	<b>CAS Number</b>	<b>OSHA PEL</b>	<b>Carcinogenicity Classification</b>	<b>Wt %</b>
Polyoxypropylenediamine	9046-10-0	None Established	Not Listed	40
Polymer Solids	68683-29-4	None Established	Not Listed	25
Glyceryl poly(oxypropylene)triamine	64852-22-8	None Established	Not Listed	10 - 20

Aminoethyl piperizine	140-31-8	10 mg/m <sup>3</sup>	Not Listed	10 - 15
Nonyl Phenol	25154-52-3	None Established	Not Listed	10 - 15
Triethanolamine	102-71-6	5 mg/m <sup>3</sup> (ACGIH)	IARC 3	1 - 5
Silicon Dioxide	7631-86-9	10 mg/m <sup>3</sup>	Not Listed	1 - 5
Piperazine	110-85-0	None Established	Not Listed	1 - 5

#### Section IV Fire and Explosion Hazard Data

<b>Flash Point</b>	194° F (Based on lowest flashpoint of the mixture)
<b>Explosion Limits</b>	N/A
<b>Extinguishing Media</b>	Use alcohol resistant foam, dry chemical, dry sand or carbon dioxide.
<b>Special Fire Fighting Procedures</b>	May generate ammonia gas during combustion of certain components. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run off from fire fighting to enter drains or water courses. Do not enter fire area without full bunker gear, including positive pressure NIOSH self-contained breathing apparatus. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.
<b>Unusual Fire and Explosion Hazards</b>	Material will not burn unless preheated.

#### Section V Reactivity Data

<b>Stability</b>	Stable under normal use conditions.
<b>Incompatibility</b>	Can react vigorously with strong oxidizing or reducing agents. Avoid contact with water or liquids. Do not allow product to contact water or other liquids. This can cause violent eruptions, splatter hot material, or ignite flammable material.
<b>Decomposition</b>	Thermal decomposition may produce carbon monoxide, carbon dioxide, ammonia and or oxides of nitrogen.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Conditions to avoid</b>	Avoid high temperatures.

#### Section VI Health Hazard Data

<b>Toxicity</b>	Health hazard tests have not been run on this mixture by Zyvex Performance Products. Information in this section is based on the health hazards of the individual components of the mixture.* Toxicity tests have not been performed on Zyvex Performance Materials products. Treat with caution.
<b>Eye</b>	May cause irritation to the eyes.
<b>Skin</b>	May cause irritation to the skin
<b>Ingestion</b>	May cause gastrointestinal irritation and diarrhea.
<b>Inhalation</b>	Amine vapors generated in fires may be irritating to the respiratory tract

<b>Conditions aggravated by exposure</b>	Product should be treated as a hazard. Existing skin and pulmonary diseases may be aggravated by skin or inhalation exposure.
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### Section VII First Aid Measures

<b>Eye</b>	Flush with large amounts of water for at least 15 minutes, lifting the eyelids to separate them. Do not rub eyes or keep them closed. Seek medical assistance immediately.
<b>Skin</b>	Immediately wash with large amounts of soap and water, remove contaminated clothing, and seek medical assistance if needed. In case of contact with hot product, immediately flood the affected area with cold water. Wipe excess material from exposed area. Flush exposed skin with water and follow by washing with soap if available. Carefully remove clothing; if clothing is stuck to a burn area do not pull it off, but cut around it. Cover burn area with a clean material. Transport to nearest medical facility for additional treatment.
<b>Ingestion</b>	Do not induce vomiting. Be sure person does not aspirate into lungs. Seek medical assistance immediately.
<b>Inhalation</b>	Remove to fresh air immediately and give oxygen if breathing is difficult. Get medical assistance. If not breathing, give artificial respiration.

### Section VIII Precautions for Safe Handling and Use

<b>Material Escape or Spills</b>	Eliminate sources of ignition. Ventilate area. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures: Dike and contain. Avoid runoff into waterway and ground penetration. Absorb with inert material (i.e., clay or sand) and place into chemical solid waste container. Dispose of properly.
<b>Waste Disposal</b>	Dispose in accordance with applicable laws.
<b>Handling</b>	Use Personal Protective Equipment (see IX) and proper ventilation.
<b>Storage</b>	Store in cool, dark, dry place with adequate ventilation. Keep away from ignition sources and high temperatures.

### Section IX Control Measures

<b>Personal Protective Equipment (PPE)</b>	Adequate ventilation should be provided while working with this product.
	Avoid contact with skin. Protect hands with chemical resistant butyl rubber gloves when handling. Wear lab coat or other protective clothing. Remove and wash contaminated clothing upon exposure.
	Wear chemical safety goggles and full face shield if splashing is possible.
	Wear respiratory protection if the material is heated to a temperature where vapors will be released.
<b>Chemical Hygiene</b>	Wash hands with soap and water after handling material to minimize the spread of undetected skin contamination. All applicable laboratory safety guidelines should be followed when using this material.

## Section X Transportation Measures

<b>DOT Proper Shipping Name</b>	Amine, liquid, corrosive, n.o.s. (polyoxypropylene diamine, Aminoethyl piperizine)
<b>DOT Hazard Class</b>	Class 8 Corrosive material
<b>Identification Number</b>	UN 2735
<b>Packaging Group</b>	III

## Section XI Regulatory Information

<b>Occupational Safety and Health Act (OSHA)</b>	This MSDS has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.
<b>Resource Conservation and Recovery Act (RCRA)</b>	This product is not specifically listed as hazardous waste under RCRA (40 CFR 261). However, it is strongly recommended that this product be treated as a hazardous waste and disposed of accordingly.
<b>SARA Title III: Section 313 Toxic Chemical List (TCL)</b>	This product contains does not contain chemicals at levels which require reporting under this statute.
<b>TSCA Section 8(b)-Inventory Status</b>	All chemical components of this product are listed and in compliance with TSCA inventory requirements.
<b>TSCA Section 12(b)-Export Notification</b>	This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

## Section XII Other

This information is provided for in good faith and is believed to be correct. Zyxex Performance Materials; however, makes no representation as to the comprehensiveness or accuracy of this information. Final determination of the suitability of this product and its safe use is the sole responsibility of the user. Accordingly, Zyxex Performance Materials will not be responsible for damages of any kind resulting from the use of or reliance upon the provided information.