Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PARALOID (TM) B-72 100% Resin

Revision date: 09/26/2003

Supplier
Rohm and Haas Company
100 Independence Mall West
Philadelphia, PA 19106-2399 United States of America

For non-emergency information contact: 215-592-3000

Emergency telephone number
Spill Emergency 215-592-3000
Health Emergency 215-592-3000
Chemtrec 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic polymer(s)</td>
<td>Not Hazardous</td>
<td>99.0 - 100.0%</td>
</tr>
<tr>
<td>Individual residual monomers</td>
<td>Not Required</td>
<td>&lt;=0.1%</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>&lt;=0.8%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance
Form Granular solid
Colour clear
Odour Acrylic odor

Hazard Summary

CAUTION!
INHALATION OF DUST CAN CAUSE THE FOLLOWING:
IRRITATION OF NOSE, THROAT, AND LUNGS
HEADACHE
NAUSEA
MAY CAUSE EYE/SKIN IRRITATION.

Potential Health Effects
Primary Routes of Entry: Inhalation
Eye contact
Skin contact

Eyes: Monomer vapors from heated product can cause the following:
slight irritation

Skin: Prolonged or repeated skin contact can cause the following:
slight irritation

Inhalation: Inhalation of dust can cause the following:
irritation of nose, throat, and lungs
Inhalation of monomer vapor from heated product can cause the following:
May cause nose, throat, and lung irritation.
headache
4. FIRST AID MEASURES

**Inhalation:** Move to fresh air.

**Skin contact:** Wash with water and soap as a precaution. If skin irritation persists, call a physician.

**Eye contact:** Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.

**Ingestion:** Drink 1 or 2 glasses of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

- **Flash point:** not applicable
- **Ignition temperature:** 393.0 °C (739.40 °F) estimated
- **Lower explosion limit:** not applicable
- **Upper explosion limit:** not applicable
- **Suitable extinguishing media:** Use the following extinguishing media when fighting fires involving this material:
  - carbon dioxide (CO2)
  - dry chemical
  - water spray

**Specific hazards during fire fighting:** Material as sold is combustible; burns vigorously with intense heat.

**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus and protective suit.

**Further information:** Water mist may be used to cool closed containers.
Remain upwind.
Avoid breathing smoke.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations.
If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

**Environmental precautions**
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Methods for cleaning up**
Floor may be slippery; use care to avoid falling.
Eliminate all ignition sources.
Ventilate the area.
Transfer spilled material to suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

**Handling**
Store in a cool, dry, well ventilated place. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Keep container tightly closed. Do not breathe vapours/dust. Static charges can accumulate: use bonding and grounding between transfer equipment and receiving containers and for any other operations capable of generating static electricity.
Storage

Storage conditions: Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Ground all metal containers during storage and handling.

Storage temperature: -18.00 - 49.00 °C; -0.40 - 120.20 °F

Further information:
Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)
Exposure limits are listed below, if they exist.

<table>
<thead>
<tr>
<th>Component</th>
<th>Regulation</th>
<th>Type of listing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>Rohm and Haas</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Rohm and Haas</td>
<td>STEL</td>
<td>75 ppm</td>
</tr>
<tr>
<td></td>
<td>Rohm and Haas</td>
<td>Absorbed via skin</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>SKIN_DES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA/Z2</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA/Z2</td>
<td>Ceiling</td>
<td>300 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA/Z2</td>
<td>MAX. CONC</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>Z1A</td>
<td>TWA</td>
<td>375 mg/m3</td>
</tr>
<tr>
<td></td>
<td>Z1A</td>
<td>STEL</td>
<td>560 mg/m3</td>
</tr>
</tbody>
</table>

Eye protection: Use safety glasses with side shields (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Hand protection: Cotton or canvas gloves.

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator’s use. None required under normal operating conditions. When dusty conditions are encountered, wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility.

Engineering measures: Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Granular solid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear</td>
</tr>
<tr>
<td>Odour</td>
<td>Acrylic odor</td>
</tr>
<tr>
<td>pH</td>
<td>not applicable</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>393 °C (739.40 °F, estimated</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>not applicable</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>not applicable</td>
</tr>
<tr>
<td>Water solubility</td>
<td>practically insoluble</td>
</tr>
<tr>
<td>Density</td>
<td>0.66 g/cm³</td>
</tr>
</tbody>
</table>
### 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, dynamic</td>
<td>not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Percent volatility</td>
<td>1 % maximum</td>
</tr>
</tbody>
</table>

**NOTE:** The physical data presented above are typical values and should not be construed as a specification.

#### 10.1.1 Hazardous reactions
- None known.

This material is considered stable. However, avoid temperatures above 260°C/500°F. Thermal decomposition is dependent on time and temperature.

#### 10.1.2 Materials to avoid
- There are no known materials which are incompatible with this product.

#### 10.1.3 Hazardous decomposition products
- Thermal decomposition may yield acrylic monomers.

#### 10.2.1 Polymerization
- Product will not undergo polymerization.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1.1 Acute oral toxicity
- LD50 rat: > 5,000 mg/kg

Toxicity data for a compositionally similar material.

#### 11.1.2 Acute dermal toxicity
- LD50 rabbit: > 3,000 mg/kg

Toxicity data for a compositionally similar material.

#### 11.1.3 Skin irritation
- rabbits: slight irritation

Toxicity data for a compositionally similar material.

#### 11.1.4 Eye irritation
- rabbits: slight irritation

Toxicity data for a compositionally similar material.

#### Further information
No data are available for this material. The information shown is based on profiles of compositionally similar materials.

**Component:** Toluene

#### 11.2.1 Acute inhalation toxicity
- LC50 rat: 4 h 15.07 mg/l

### 12. ECOLOGICAL INFORMATION

There is no data available for this product.

**Toluene**

#### Ecotoxicity effects

<table>
<thead>
<tr>
<th>Toxidity to fish</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Rainbow trout</td>
<td>96 h</td>
</tr>
<tr>
<td></td>
<td>24 ppm</td>
</tr>
<tr>
<td>LC50 Fathead minnow (Pimephales promelas)</td>
<td>96 h</td>
</tr>
<tr>
<td></td>
<td>26 ppm</td>
</tr>
<tr>
<td>LC50 Bluegill sunfish</td>
<td>96 h</td>
</tr>
<tr>
<td></td>
<td>13 ppm</td>
</tr>
<tr>
<td>EC50 Algae96 h</td>
<td>&gt;433 ppm</td>
</tr>
</tbody>
</table>

#### Toxicity to aquatic invertebrates
- EC50 Daphnia magna: 48 h
- 11.5 ppm

### 13. DISPOSAL CONSIDERATIONS

**Environmental precautions:** CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Disposal**

**Waste Classification:** When a decision is made to discard this material as supplied, it does not meet RCRA’s characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

For disposal, incinerate this material at a facility that complies with local, state, and federal regulations.
14. TRANSPORT INFORMATION

**DOT**
Not regulated for transport

**IMO/IMDG**
Not regulated (Not dangerous for transport)

15. REGULATORY INFORMATION

**Workplace Classification**
This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR1910.1200).
This product is a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

**SARA TITLE III:** Section 311/312 Categorizations (40CFR370): This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

**SARA TITLE III:** Section 313 Information (40CFR372)
This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**CERCLA Information (40CFR302.4)**
Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

**US. Toxic Substances Control Act (TSCA)**
All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**Pennsylvania**
Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

**California (Proposition 65)**
This product contains a component or components known to the state of California to cause birth defects or other reproductive harm:
Components: Toluene 108-88-3

**California (Proposition 65)**
This product contains trace levels of a component or components known to the state of California to cause cancer and birth defects or other reproductive harm:
Components: Benzene 71-43-2

16. OTHER INFORMATION

**Hazard Rating**

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HMIS</strong></td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**Legend**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIGH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>BAc</td>
<td>Butyl acetate</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure Limit (STEL):</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average (TWA):</td>
</tr>
<tr>
<td></td>
<td>Bar denotes a revision from prior MSDS.</td>
</tr>
</tbody>
</table>
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.