



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PARALOID(TM) B-48N 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

Component	CAS-No.	Concentration
Acrylic polymer(s)	Not Hazardous	98.0 - 100.0 %
Residual monomers	Not Required	<= 0.5 %
Toluene	108-88-3	<= 1.0 %

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

Form	Granular solid
Colour	clear
Odour	Acrylic odor



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Hazard Summary

CAUTION!

INHALATION OF DUST CAN CAUSE THE FOLLOWING:
IRRITATION OF NOSE, THROAT, AND LUNGS
HEADACHE
NAUSEA
MAY CAUSE EYE/SKIN IRRITATION.
PROLONGED OR REPEATED OVEREXPOSURE TO TOLUENE
CAN CAUSE THE FOLLOWING: - IRRITATION OF THE
RESPIRATORY TRACT - ENLARGED LIVER - KIDNEY EFFECTS
- CARDIAC SENSITIZATION
EMBRYOFETOTOXIC EFFECTS
TERATOGENIC EFFECTS
CAUSES ADVERSE REPRODUCTIVE EFFECTS.

Potential Health Effects

Primary Routes of Entry:

Inhalation
Eye contact
Skin contact
Dermal Absorption

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

Skin: Prolonged or repeated skin contact can cause the following:
slight irritation
The solvent(s) in this material can be absorbed through intact skin.

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
nausea

Chronic Exposure: Prolonged or repeated overexposure to toluene can cause the following: -
irritation of the respiratory tract - enlarged liver - kidney effects - cardiac sensitization
embryofetotoxic effects
Causes adverse reproductive effects.
teratogenic effects

Toluene	ACGIH	Not classifiable as a human carcinogen.
Toluene	US CA65CRT	Developmental toxin.
Toluene	IARC	Classification not possible from current data.
Toluene	IARC	Inadequate data.
Toluene	IARC	Evidence suggests lack of carcinogenicity.

4. FIRST AID MEASURES

Inhalation: Move to fresh air.



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Skin contact: Wash with water and soap as a precaution. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Do not take clothing home to be laundered.

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



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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.

Component	Regulation	Type of listing	Value
Toluene	Rohm and Haas	TWA	50 ppm
	Rohm and Haas	STEL	75 ppm
	Rohm and Haas	Absorbed via skin	
	ACGIH	TWA	50 ppm
	ACGIH	SKIN_DES	
	OSHA/Z2	TWA	200 ppm
	OSHA/Z2	Ceiling	300 ppm
	OSHA/Z2	MAX. CONC	500 ppm
	Z1A	TWA	375 mg/m3 100 ppm
	Z1A	STEL	560 mg/m3 150 ppm

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: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Polyvinyl alcohol VITON Synthetic Rubber (registered Trademark of Dupont Dow Elastomers) Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

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 if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 1000 ppm organic vapor: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 1000 ppm organic vapor or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. 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.



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Protective measures: Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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

Form	Granular solid
Colour	clear
Odour	Acrylic odor
pH	Not Applicable
Boiling point/range	not applicable
Melting point/range	no data available
Flash point	not applicable
Ignition temperature	393 °C (739.40 °F) estimated
Lower explosion limit	Not Applicable
Upper explosion limit	Not Applicable
Vapour pressure	Not Applicable
Relative vapour density	Not Applicable
Water solubility	practically insoluble
Relative density	1.15
Viscosity, dynamic	6,000.000 - 11,500.000 mPa.s
Evaporation rate	Not Applicable
Percent volatility	2 % maximum

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

10. STABILITY AND REACTIVITY

Hazardous reactions	None known. This material is considered stable. However, avoid temperatures above 260C/500F. Thermal decomposition is dependent on time and temperature.
Materials to avoid	There are no known materials which are incompatible with this product.
Hazardous decomposition products	Thermal decomposition may yield acrylic monomers.,
polymerization	Product will not undergo polymerization.



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11. TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 rat > 5,000 mg/kg
Toxicity data for a compositionally similar material.

Acute dermal toxicity LD50 rabbit > 3,000 mg/kg
Toxicity data for a compositionally similar material.

Skin irritation rabbit slight irritation
Toxicity data for a compositionally similar material.

Eye irritation rabbit slight irritation
Toxicity data for a compositionally similar material.

Component: **Toluene**
Acute inhalation toxicity LC50 rat 4 h 15.07 mg/l

Component: **Toluene**
Subchronic toxicity IARC assessment: this product is not classifiable as to its carcinogenicity to humans (Group 3).

Component: **Toluene**
Toxicity to reproduction
In laboratory studies, birth defects, increased fetal lethality and delayed fetal development have been observed in offspring of female animals exposed during pregnancy.

Component: **Toluene**
Teratogenicity
Toluene has been demonstrated to be embryofetotoxic and teratogenic in laboratory animals.

12. ECOLOGICAL INFORMATION

There is no data available for this product.

Toluene

Ecotoxicity effects

Toxicity to fish LC50 Rainbow trout 96 h
24 ppm

Toxicity to fish LC50 Fathead minnow (Pimephales promelas) 96 h
26 ppm

Toxicity to fish LC50 Bluegill sunfish 96 h
13 ppm

Toxicity to algae EC50 Algae 96 h
>433 ppm

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.



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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 hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product is a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE III: Section 311/312 Categorizations (40CFR370): Chronic Health Hazard

SARA TITLE III: Section 313 Information (40CFR372)

This product contains a chemical which is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present: (Quantity present is found elsewhere on this MSDS.)

SARA Title III Components:	Toluene	108-88-3
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CERCLA Information (40CFR302.4)

This material is regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304. This material is or contains chemical(s) listed in 40 CFR Table 302.4 or nondesignated RCRA ICR substance(s). (Nondesignated ICR substances apply to materials that will not be reused.) The Reportable Quantity(s) (RQ) are listed below. Releases in excess of its reportable quantity must be reported to the National Response Center (1-800-424-8802) and to the appropriate state and local emergency response organizations.

CERCLA Components:	Toluene	108-88-3	1,000 lbs RQ
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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



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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 birthdefects or other reproductive harm:

Components: Benzene 71-43-2

16. OTHER INFORMATION

Hazard Rating

	Health	Fire	Reactivity
HMIS	1 (chronic)	1	0

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
BAC	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
	Bar denotes a revision from prior MSDS.

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.

Print Date: 08/05/2004
Version: 1.1
Layout 208743