



# Material Safety Data Sheet

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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PARALOID™ K-445 EMULSION

**Supplier**

THE DOW CHEMICAL COMPANY\*  
Agent for Rohm and Haas Chemicals LLC  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106-2399 United States

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

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

**Emergency telephone number**

1 800 424 9300

**Local Emergency telephone number**

989-636-4400

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	CAS-No.	Concentration
Acrylic polymer(s)	Not Hazardous	48.0 - 50.0%
Individual residual monomers	Not Required	< 0.06%
Water	7732-18-5	50.0 - 52.0%

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## 3. HAZARDS IDENTIFICATION

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**Emergency Overview**

**Appearance**

Form liquid

Colour white

Odour acrylic-like

**Hazard Summary****CAUTION!**

INHALATION OF VAPOR OR MIST CAN CAUSE HEADACHE,  
NAUSEA AND IRRITATION OF THE NOSE, THROAT AND LUNGS.  
MAY CAUSE EYE AND SKIN IRRITATION.

**Potential Health Effects****Primary Routes of Entry:**

Inhalation  
Eye contact  
Skin contact

**Eyes:** Direct contact with material can cause the following:  
slight irritation

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

**Inhalation:** Inhalation of vapor or mist can cause the following:  
irritation of nose, throat, and lungs  
headache  
nausea

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**4. FIRST AID MEASURES**

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**Inhalation:** Move to fresh air.

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

**Eye contact:** Rinse with plenty of water. 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.

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**5. FIRE-FIGHTING MEASURES**

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**Flash point** Noncombustible

**Lower explosion limit** not applicable

**Upper explosion limit** not applicable

**Suitable extinguishing media:** Use extinguishing media appropriate for surrounding fire.

**Thermal decomposition** Thermal decomposition may yield acrylic monomers.

**Specific hazards during fire fighting:** Material can splatter above 100C/212F. Dried product can burn.

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

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## 6. ACCIDENTAL RELEASE MEASURES

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### Personal precautions

Use personal protective equipment.  
Keep people away from and upwind of spill/leak.  
Material can create slippery conditions.

### Environmental precautions

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

### Methods for cleaning up

Contain spills immediately with inert materials (e.g., sand, earth).  
Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

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## 7. HANDLING AND STORAGE

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### Handling

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapors, mist or gas.

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

### Storage

**Further information on storage conditions:** Keep from freezing - product stability may be affected.  
STIR WELL BEFORE USE.

**Storage temperature:** 1 - 49 °C (34 - 120 °F)

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Exposure limit(s)

Exposure limits are listed below, if they exist.

### Exposure controls

**Engineering measures:** Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor 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.

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

### Individual protection measures

**Eye/face protection:** Safety glasses with side-shields Eye protection worn must be compatible with respiratory protection system employed.

### Skin protection

**Hand protection:** The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene 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. Where vapors and/or mists may occur, 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. Use NIOSH approved respiratory protection.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Form	liquid
Colour	white
Odour	acrylic-like
pH	2 - 8
Boiling point/boiling range	100 °C ( 212.00 °F) Water
Flash point	Noncombustible
Evaporation rate	<1.00 Water
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	17.0 mmHg at 20 °C (68.00 °F) Water
Relative vapour density	<1.0Water
Relative density	1.00 - 1.20
Water solubility	Dilutable
Viscosity, dynamic	800 - 1,500 mPa.s
Percent volatility	50 - 53 %

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

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## 10. STABILITY AND REACTIVITY

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Hazardous reactions	None known. Stable
Materials to avoid	There are no known materials which are incompatible with this product.
Polymerisation	Product will not undergo polymerization.

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## 11. TOXICOLOGICAL INFORMATION

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

**Acute oral toxicity** LD50 rat > 5,000 mg/kg

<b>Acute dermal toxicity</b>	LD50 rabbit > 5,000 mg/kg
<b>Skin irritation</b>	rabbit May cause transient irritation.
<b>Eye irritation</b>	rabbit No eye irritation

Component: **Water**

**Acute inhalation toxicity** > 40,000.000000 mg/l

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## 12. ECOLOGICAL INFORMATION

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There is no data available for this product.

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## 13. DISPOSAL CONSIDERATIONS

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**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).

Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

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## 14. TRANSPORT INFORMATION

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### DOT

Not regulated for transport

### IMO/IMDG

Not regulated (Not dangerous for transport)

*Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations*

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## 15. REGULATORY INFORMATION

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### Workplace Classification

OSHA: This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR1910.1200).

WHMIS: This product is not 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 trace levels of a component or components known to the state of California to cause cancer:

Components: Formaldehyde 50-00-0

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## 16. OTHER INFORMATION

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**HMIS Hazard Rating**

Health	Fire	Reactivity	Physical Hazard	PPE
1	0	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.

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