



# MATERIAL SAFETY DATA SHEET

## Rohm and Haas Company

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

KERB® 50-W A Herbicide

Product Code : 62789  
Key : 891476-7

MSDS Date : 11/03/97

#### COMPANY IDENTIFICATION

ROHM AND HAAS COMPANY  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106-2399

#### EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY : 215-592-3000  
SPILL EMERGENCY : 215-592-3000  
CHEMTREC : 800-424-9300

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

No.		CAS REG NO	WEIGHT (%)
1	Pronamide (Propyzamide) .....	23950-58-5	50-54
2	Ethylene glycol .....	107-21-1	2
3	Aluminum silicate dihydrate .....	1332-58-7	44-48
4	Sodium lignosulfonate .....	8061-51-6	
5	Related reaction products .....	None	
6	Octylphenoxypolyethoxyethanol .....	9036-19-5	
7	Silica, crystalline - Quartz .....	14808-60-7	1.25 MAX.

NOTE: The -|-, or -Bar-, in the WEIGHT (%) column is used to denote two or more components whose weight percents sum to the total shown by the figure either to the right of or immediately above the -Bar-.

See Section 8, Exposure Controls / Personal Protection

### 3. HAZARDS IDENTIFICATION

#### Primary Routes of Exposure

[Inhalation](#)  
[Skin Contact](#)  
[Eye Contact](#)  
[Dermal Absorption](#)

#### Inhalation

Inhalation of dust can cause the following:  
- irritation of nose and throat

#### Eye Contact

Direct contact with material can cause the following:  
- possible irritation

#### Skin Contact

[Prolonged or repeated skin contact can cause the following:](#)  
[- possible skin irritation](#)



Component 2 may be absorbed through intact skin.

Delayed Effects

Prolonged or repeated overexposure to ethylene glycol vapors may cause liver or kidney damage.

Repeated overexposure to the active ingredient in this material may cause the following:

- liver damage

Crystalline silica is listed by the National Toxicology Program (NTP) as a reasonably anticipated cancer causing agent and by the International Agency for Research on Cancer (IARC) as a known cancer causing agent.

Prolonged or repeated overexposure to component 7 can cause the following:

- silicosis, a pneumoconiosis which causes scar tissue

**4. FIRST AID MEASURES**

Inhalation

Move subject to fresh air.

Eye Contact

Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

Skin Contact

Wash affected skin areas thoroughly with soap and water. Consult a physician if irritation persists.

Ingestion

If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

Note to Physician

If swallowed, careful evacuation of the stomach is advisable.

**5. FIRE FIGHTING MEASURES**

Flash Point .....	Not Applicable
Auto-ignition Temperature .....	428°C/802°F
Lower Explosive Limit .....	0.175 oz/ft3 175.193 g/m <sup>3</sup>
Upper Explosive Limit .....	No Data

Unusual Hazards

Pesticide particulates can become airborne.  
Combustion generates toxic fumes of the following:  
- hydrogen chloride - nitrogen oxides - carbon oxides  
Dusts at sufficient concentrations can form explosive mixtures with air.  
The minimum ignition temperature of dust cloud is 525C/977F.  
The minimum ignition temperature of dust layer is 150C/302F.

Extinguishing Agents

Use the following extinguishing media when fighting fires involving this material:



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- carbon dioxide - dry chemical - water spray

#### Personal Protective Equipment

Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective gear.

#### Special Procedures

Contain run-off. Remain upwind. Avoid breathing smoke. Use water spray to cool containers exposed to fire.

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### **6. ACCIDENTAL RELEASE MEASURES**

#### Personal Protection

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. Remove all contaminated clothing promptly. Wash all exposed skin areas with soap and water immediately after exposure. Thoroughly launder clothing before reuse. Do not take clothing home to be laundered.

#### Procedures

Transfer spilled material to suitable containers for recovery or disposal. Keep dust to a minimum.  
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

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### **7. HANDLING AND STORAGE**

#### Storage Conditions

Do not store this material near food, feed or drinking water. The minimum recommended storage temperature for this material is 0C/32F. The maximum recommended storage temperature for this material is 50C/122F. Store in a dry area. Store out of direct sunlight in a cool place.

#### Handling Procedures

Do not handle material near food, feed or drinking water.

Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following the guidelines in NFPA-68 and NFPA-69. For electrical equipment follow local codes and electrical classification NFPA-70 (the National Electrical Code), class II, division 2, group G.

#### Other

Completely empty bag into application equipment. Dispose empty bag in a sanitary landfill or by incineration as allowed by state and local authorities. Avoid inhalation of smoke if incinerated.



## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limit Information

No		CAS REG NO	WEIGHT (%)
1	Pronamide (Propyzamide) .....	23950-58-5	50-54
2	Ethylene glycol .....	107-21-1	2
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4	Sodium lignosulfonate .....	8061-51-6	
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7	Silica, crystalline - Quartz .....	14808-60-7	1.25 MAX.

Comp. No.	Units	ROHM AND HAAS		OSHA		ACGIH	
		TWA	STEL	TWA	STEL	TWA	STEL
1	mg/m3	0.1	None	None	None	None	None
2	mg/m3	20 Skin	60 Skin	120 a	None	100 a	None
3	mg/m3	None	None	None	None	2 b	None
4		None	None	None	None	None	None
5		None	None	None	None	None	None
6		None	None	None	None	None	None
7	mg/m3	0.1 b	None	0.1 b	None	0.1 b	None

- a Ceiling
- b Respirable Fraction

### Respiratory Protection

A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements 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 TWA/TLV:** Wear a MSHA/NIOSH approved (or equivalent) half-mask, air-purifying respirator.

**Up to 1000 ppm organic vapor:** Wear a MSHA/NIOSH approved (or equivalent) full-facepiece, air-purifying respirator.

**Above 1000 ppm organic vapor or Unknown:** Wear a MSHA/NIOSH approved (or equivalent) self-contained breathing apparatus in the positive pressure mode,

OR,

MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Air-purifying respirators should be equipped with MSHA/NIOSH approved (or equivalent) cartridges for protection against pesticides.

### Eye Protection

Use safety glasses (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:  
- Polyvinyl chloride-coated glove or other chemical-resistant rubber-coated glove  
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.

Other Protection

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation)

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.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Color .....	Off-white
State .....	Powdered solid
Odor Characteristic .....	Odorless
pH .....	Not Applicable
Viscosity .....	Not Applicable
Specific Gravity (Water = 1) .....	0.20 to 0.25 g./cc. Bulk Density
Vapor Density (Air = 1) .....	Not Applicable
Vapor Pressure .....	< 0.01 mm Hg @ 20°C/68°F
Melting Point .....	154°C/309°F Estimate
Boiling Point .....	Not Applicable
Solubility in Water .....	Dispersible
Percent Volatility .....	0 to 2 %
Evaporation Rate (BAc = 1) .....	Not Applicable

See Section 5, Fire Fighting Measures

**10. STABILITY AND REACTIVITY**

Instability

This material is considered stable. However, avoid temperatures above 150C/302F.

Hazardous Decomposition Products

Thermal decomposition may yield the following:  
- hydrogen chloride



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### Hazardous Polymerization

Product will not undergo polymerization.

### Incompatibility

There are no known materials which are incompatible with this product.

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## **11. TOXICOLOGICAL INFORMATION**

### Acute Data

Oral LD50 - rat: >5000 mg/kg  
Dermal LD50 - rat: >2000 mg/kg  
Eye irritation - rabbit: inconsequential irritation  
Skin irritation - rabbit: practically non-irritating  
Inhalation LC50 - rat: >5 mg/L for 4 hr

### Subchronic/Chronic Data

The following data pertains to studies conducted with the technical material, 85% active ingredient:  
Decreased body weight and food consumption; increased liver weight; liver, thyroid, adrenal and pituitary hypertrophy were observed at 1000 ppm and above in the rat 13 week dietary study. The overall NOEL was 200 ppm (10 mg/kg/day) in rats.  
Decreased body weight and food consumption; increased liver and adrenal weights and liver histopathology were observed at 500 ppm and above in the mouse 13 week dietary study. The overall NOEL was 100 ppm (16 mg/kg/day) in mice.  
Decreased body weight gain and food consumption and increased liver weight were observed at 1350 ppm and above in the dog 13 week dietary study. The overall NOEL was 450 ppm (15 mg/kg/day) in dogs.

### Carcinogenicity Data

The following data pertains to studies conducted with the technical material, 85% active ingredient: Ovarian hyperplasia, liver hypertrophy, thyroid adenomas and testicular adenomas were observed at 1000 ppm in the rat two-year oncogenicity study; the overall NOEL was 200 ppm (10 mg/kg/day) in rats. Hepatic tumors were observed at 70 ppm and above in the mouse two-year oncogenicity study; the overall NOEL was 13 ppm (2 mg/kg/day) in mice.

NOTE: Information on the mechanism of formation of these tumors indicates that none of the tumor types is relevant for human risk assessment at likely exposure levels.

### Mutagenicity Data

The following data pertains to studies conducted with the technical material, 85% active ingredient:  
Ames mutagenicity: Negative  
Bacterial DNA damage (rec-assay): Negative  
Mouse Lymphoma Point Mutation: Negative  
In vitro cytogenetic assay (Chinese hamster lung fibroblasts): Negative  
In vivo cytogenetic assay (rat): Negative  
In vivo cytogenetic assay (mouse): Negative  
In vitro rat hepatocyte Unscheduled DNA Synthesis: Negative  
Mouse Host Mediated Bacterial Gene Mutation Test: Negative



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### Reproductive/Teratology Data

The following data pertains to studies conducted with the technical material, 93% active ingredient: Decreased parental body weight and feed consumption; liver, adrenal and thyroid hypertrophy and decreased body weight at 1500 ppm were observed in a rat reproductive toxicity study. No adverse effects on reproduction were noted. The overall NOEL was 200 ppm (10 mg/kg/day) in rats.

### Sensitization Data

Delayed Contact Hypersensitivity - guinea pig: No allergic response observed.

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## **12. ECOLOGICAL INFORMATION**

### Environmental Toxicity

Rainbow trout (*Salmo gairdneri*), 96 Hour LC50: 72 mg/l  
Goldfish, 96 Hour LC50: 350 mg/l  
Guppy, 96 Hour LC50: 150 mg/l  
Channel catfish (*Ictalurus punctatus*), 96 Hour LC50: > 200 mg/l  
Green Algae (*Scenedesmus quadricauda*), 96 Hour EC50: 5.8 mg/l  
Daphnia magna, 48 Hour LC50: > 5.6 mg/l;<sup>1</sup>  
Bobwhite quail, LC50: > 10000 mg/l;<sup>1</sup>  
Mallard duck, LC50: > 10000 mg/l;<sup>1</sup>  
Harlequin fish, 96 Hour LC50: 204 mg/l;<sup>1</sup>  
Rainbow trout (*Salmo gairdneri*), 96 Hour LC50: 4.7 mg/l;<sup>2</sup>

<sup>1</sup> Result is from study conducted on technical material, 85% active ingredient.

<sup>2</sup> Result is from study conducted on technical material, 93% active ingredient.

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## **13. DISPOSAL CONSIDERATIONS**

### Procedure

For disposal, incinerate this material at a facility that complies with local, state, and federal regulations. (See 40 CFR 268)

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## **14. TRANSPORT INFORMATION**

US DOT Hazard Class ..... NONREGULATED

This classification is used when shipping in non-bulk packages for domestic surface transportation only. Exceptions in CFR 49 Parts 171-177 may apply. Consult CFR 49 Parts 171-177 to determine appropriate classification when shipping in bulk packages or when shipping by air or ocean.

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## **15. REGULATORY INFORMATION**

### Workplace Classification

This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is subject to regulation under the Canadian Pest Control Products Act (P.C.P. Act). Therefore, this product is excluded from the supplier labeling and material safety data sheet requirements as specified in Section 12 of the Hazardous Products Act.



SARA TITLE 3: Section 311/312 Categorizations (40CFR 370)

This product is a hazardous chemical under 29CFR 1910.1200, and is categorized as a delayed health hazard.

SARA TITLE 3: Section 313 Information (40CFR 372)

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.)

- Ethylene glycol (107-21-1)
- Pronamide (23950-58-5)

CERCLA Information (40CFR 302.4)

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.  
Pronamide (23950-58-5) 5000lbs.  
Ethylene glycol (107-21-1) 5000 lbs.

Waste Classification

When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste, hazardous waste number: U-192 (40 CFR 261).

United States

This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from U.S. Toxic Substances Control Act (TSCA) Inventory listing requirements.

California (Proposition 65)

This product contains a component or components known to the state of California to cause cancer:  
- Pronamide (23950-58-5)

**16. OTHER INFORMATION**

Rohm and Haas Hazard Rating		Scale
Toxicity	0	4=EXTREME
Fire	1	3=HIGH
Reactivity	0	2=MODERATE
Special	-	1=SLIGHT 0=INSIGNIFICANT

Ratings are based on Rohm and Haas guidelines, and are intended for internal use.



ROHM AND HAAS COMPANY  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106-2399

PRODUCT: KERB® 50-W A Herbicide  
KEY: 891476-7  
DATE: 11/03/97

**ABBREVIATIONS:**

ACGIH = American Conference of Governmental Industrial Hygienists  
OSHA = Occupational Safety and Health Administration  
TLV = Threshold Limit Value  
PEL = Permissible Exposure Limit  
TWA = Time Weighted Average  
STEL = Short-Term Exposure Limit  
BAC = Butyl acetate  
Bar denotes a revision from previous MSDS in this area.

The information contained herein relates only to the specific material identified. Rohm and Haas Company believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. Rohm and Haas Company urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

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