MATERIAL SAFETY DATA SHEET
Rohm and Haas Company

3631

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

EAGLE™ WSP Fungicide

Product Code : 74394
Key : 872248-4

MSDS Date : 01/20/99

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	Myclobutanil	88671-89-0	40-42
2	Aluminum silicate dihydrate	1332-58-7	58-60
3	Nonionic surfactant	Undisclosed	
4	Calcium silicate, synthetic	1344-95-2	
5	Sodium lignosulfonate	8061-51-6	
6	Related reaction products	None	

See Section 8, Exposure Controls / Personal Protection

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure

Eye Contact
Skin Contact
Inhalation

Inhalation

Repeated or prolonged inhalation of dust is possibly harmful.

Eye Contact

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

Skin Contact

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

Ingestion

Material is possibly harmful if swallowed.

Delayed Effects

Repeated overexposure to the active ingredient in this material can cause the following:
- adverse reproductive effects - embryofetotoxic effects

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. See a physician.

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	No Data
Lower Explosive Limit	No Data
Upper Explosive Limit	No Data

Unusual Hazards

Pesticide particulates can become airborne.
Combustion generates toxic fumes of the following:
- hydrogen chloride
Dusts at sufficient concentrations can form explosive mixtures with air.
The minimum ignition temperature of dust cloud is 507C/945F.
The minimum ignition temperature of dust layer is 388C/730F.

Extinguishing Agents

Use the following extinguishing media when fighting fires involving this material:
- 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 surfaces and prevent reignition. DO NOT use a solid stream of water. A solid stream of water can spread fire.

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.

7. HANDLING AND STORAGE

Storage Conditions

Do not store this material near food, feed or drinking water. Store in a well ventilated area. Store in a dry area. Store out of direct sunlight in a cool place. The minimum recommended storage temperature for this material is 1C/34F. The maximum recommended storage temperature for this material is 49C/120F.

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	Myclobutanil	88671-89-0	40-42
2	Aluminum silicate dihydrate	1332-58-7	58-60
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6	Related reaction products	None	

Comp.		ROHM AND HAAS		OSHA		ACGIH	
No.	Units	TWA	STEL	TWA	STEL	TWA	STEL
1	mg/m3	1	3	None	None	None	None
2	mg/m3	None	None	None	None	2 a	None
3		None	None	None	None	None	None
4	mg/m3	None	None	5 a	None	10 b	None
5		None	None	None	None	None	None
6		None	None	None	None	None	None

a Respirable Fraction
b Total Dust

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 exposure limit: Wear a MSHA/NIOSH approved (or equivalent) half-mask, air-purifying respirator.

Up to 100 times the exposure limit: Wear a MSHA/NIOSH approved (or equivalent) full-facepiece, air-purifying respirator,
OR
full-facepiece, airline respirator in the demand mode.

Above 100 times the exposure limit or Unknown: Wear a MSHA/NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode,
OR
MSHA/NIOSH approved (or equivalent) full-facepiece, airline respirator in the pressure demand mode with emergency escape provision.

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

Eye Protection

Use chemical splash goggles (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. Work clothing should be removed at the end of the shift and laundered by the employer.

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	Tan
State	Powdered solid
Odor Characteristic	Mild odor
pH	7.5 to 8.5 Aqueous suspension
Viscosity	Not Applicable
Specific Gravity (Water = 1)	0.3 to 0.35 g./cc. Bulk Density
Vapor Density (Air = 1)	Not Applicable
Vapor Pressure	Not Applicable
Melting Point	No Data
Boiling Point	Not Applicable
Solubility in Water	Dispersible
Percent Volatility	0%
Evaporation Rate (BAc = 1)	Not Applicable

See Section 5, Fire Fighting Measures

10. STABILITY AND REACTIVITY

Instability

This material is considered stable.

Hazardous Decomposition Products

There are no known hazardous decomposition products for this material.

Hazardous Polymerization

Product will not undergo polymerization.

Incompatibility

Avoid contact with strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute Data

Toxicity data for a compositionally similar material are listed below.

Oral LD50 - rat: 2090 mg/kg (female); 1870 mg/kg (male)
Dermal LD50 - rabbit: >5000 mg/kg
Inhalation LC50 - rat: >5.0 mg/L for 4 hr
Skin Irritation - rabbit: slight irritation
Eye Irritation - rabbit: substantial irritation

Carcinogenicity Data

The following data pertains to studies conducted with the technical material, 92% active ingredient:
Slightly decreased testicular weight and minimal testicular atrophy were observed at 200 and 800 ppm, respectively, in the rat two-year chronic/oncogenicity study; the overall NOEL was 50 ppm (2.5 mg/kg/day) in rats. No neoplastic changes were observed.
The target organ in the mouse two-year oncogenicity study was the liver; the overall NOEL was 20 ppm (3 mg/kg/day) in mice. No neoplastic changes were observed.
The target organ in the dog one-year oncogenicity study was the liver; the overall NOEL was 100 ppm (3 mg/kg/day) in dogs.

Mutagenicity Data

The following data pertains to studies conducted with the technical material, 92% active ingredient:
Ames mutagenicity: Negative
Mammalian cell gene-mutation assay in Chinese hamster ovary cells (CHO): Negative
In vitro cytogenetic assay (Chinese hamster ovary cells): Negative
In vivo cytogenetic assay (mouse): Negative
In vitro rat hepatocyte Unscheduled DNA Synthesis: Negative
Dominant lethal test (rat): Negative

Reproductive/Teratology Data

The following data pertains to studies conducted with the technical material, 92% active ingredient:
No evidence of teratogenicity was observed in studies with rats and rabbits.
Embryotoxicity was observed at 94 mg/kg/day and above in the rat developmental toxicity study; maternal toxicity was observed at 313 mg/kg/day and above. The overall NOEL was 31 mg/kg/day in rats.
Embryotoxicity was observed at 200 mg/kg/day in the rabbit developmental toxicity study; maternal toxicity was observed at 60 mg/kg/day and above. The overall NOEL was 20 mg/kg/day in rabbits.
Systemic toxicity was observed at 200 and 1000 ppm in the rat two-generation reproduction study; minimal reproductive effects and testicular atrophy were observed at 1000 ppm (50 mg/kg/day). The NOEL for reproductive effects was 200 ppm (10 mg/kg/day) in rats.

Sensitization Data

Sensitization data for a compositionally similar material are listed below.

Skin sensitization - guinea pig: No allergic response observed.

12. ECOLOGICAL INFORMATION

Environmental Toxicity

Bluegill sunfish (Lepomis macrochirus), 96 Hour LC50: 2.2 mg/l
Rainbow trout (Salmo gairdneri), 96 Hour LC50: 3.9 mg/l
Daphnia magna, 48 Hour LC50: 10.2 mg/l
Eastern oyster, 96 Hour EC50: 0.72 mg/l
Mysid shrimp (Mysidopsis bahia), 96 Hour LC50: 240 ug/l
Algae (Selenastrum capricornutum), 120 Hour EC50: 0.91 mg/l
Algae (Scenedesmus subspicatus), 96 Hour EC50: 2.6 mg/l
Bobwhite quail, Dietary LC50: > 5000 ppm
Bobwhite quail, LD50: 510 mg/kg
Mallard duck, Dietary LC50: > 5000 ppm
Honeybee, LD50: > 362 ug/bee

All results are based on mean measured concentrations of the active ingredient.
The above Environmental Toxicity data are from studies conducted on the technical material, 92% active ingredient.

13. DISPOSAL CONSIDERATIONS

Procedure

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

14. TRANSPORT INFORMATION

US DOT Hazard Class ..... NONREGULATED

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 an immediate and 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.)
- Myclobutanil (.alpha.-Butyl-.alpha.-(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile) (88671-89-0)

CERCLA Information (40CFR 302.4)

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.

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).

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.

16. OTHER INFORMATION

Rohm and Haas Hazard Rating		Scale
Toxicity	2	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.

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.