



# SAFETY DATA SHEET

## ROHM AND HAAS ELECTRONIC MATERIALS LLC

**Product name:** EAGLE™ 2005 DEVELOPER

**Issue Date:** 03/24/2015

**Print Date:** 05/29/2015

ROHM AND HAAS ELECTRONIC MATERIALS LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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### 1. IDENTIFICATION

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**Product name:** EAGLE™ 2005 DEVELOPER

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Chemical Specialty

#### COMPANY IDENTIFICATION

ROHM AND HAAS ELECTRONIC MATERIALS LLC

A Subsidiary of The Dow Chemical Company

455 FOREST STREET

MARLBOROUGH MA 01752

UNITED STATES

**Customer Information Number:**

215-592-3000

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

#### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 1 800 424 9300

**Local Emergency Contact:** 800-424-9300

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### 2. HAZARDS IDENTIFICATION

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#### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Skin corrosion - Category 1A

Serious eye damage - Category 1

Specific target organ toxicity - single exposure - Category 3

#### Label elements

**Hazard pictograms**



Signal word: **DANGER!**

**Hazards**

Causes severe skin burns and eye damage.  
May cause respiratory irritation.

**Precautionary statements****Prevention**

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
Wash contaminated clothing before reuse.

**Storage**

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

no data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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**Chemical nature:** Aqueous solution of organic compounds

This product is a mixture.

Component	CASRN	Concentration
Polyglycol		50.0 - 60.0 %

Water	7732-18-5	20.0 - 30.0 %
Lactic acid	50-21-5	20.0 - 30.0 %

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#### 4. FIRST AID MEASURES

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**Description of first aid measures**

**Inhalation:** Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

**Skin contact:** Wash skin with water. Continue washing for at least 15 minutes. Obtain medical attention if blistering occurs or redness persists.

**Eye contact:** Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Ingestion:** Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Immediate medical attention is required. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treat symptomatically.

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#### 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Not readily combustible. Select extinguishing agent appropriate to other materials involved.

**Unsuitable extinguishing media:** no data available

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** no data available

**Unusual Fire and Explosion Hazards:** No specific measures necessary.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry.

**Special protective equipment for firefighters:** Wear full protective clothing and self-contained breathing apparatus.

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#### 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Wear suitable protective clothing.

**Environmental precautions:** Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

**Methods and materials for containment and cleaning up:** Cover with absorbent or contain. Collect and dispose.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Use only in well-ventilated areas. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed.

**Conditions for safe storage:** Store in original container. Storage area should be: cool dry well ventilated out of direct sunlight away from incompatible materials  
No special precautions necessary.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

### Exposure controls

**Engineering controls:** Local exhaust

### Individual protection measures

**Eye/face protection:** Chemical goggles and face shield.

#### Skin protection

**Hand protection:** Butyl-rubber.

**Other protection:** Not applicable

**Respiratory protection:** No personal respiratory protective equipment normally required.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

<b>Physical state</b>	liquid
<b>Color</b>	Colorless - Straw colored
<b>Odor</b>	mild
<b>Odor Threshold</b>	no data available
<b>pH</b>	2.2
<b>Melting point/range</b>	no data available
<b>Freezing point</b>	no data available
<b>Boiling point (760 mmHg)</b>	Not Applicable—Decomposes
<b>Flash point</b>	Nonflammable
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not Applicable

Lower explosion limit	no data available
Upper explosion limit	Not applicable
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	1.095
Water solubility	completely soluble completely soluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Kinematic Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
Molecular weight	no data available
Volatile Organic Compounds	0.00 g/L

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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**Reactivity:** no data available

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** No dangerous reaction known under conditions of normal use. Product will not undergo hazardous polymerization.

**Conditions to avoid:** contact with incompatible materials

**Incompatible materials:** Bases Acids

**Hazardous decomposition products:** Carbon monoxide carbon dioxide

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

**Acute toxicity**

**Acute oral toxicity**

Product test data not available.

**Acute dermal toxicity**

Product test data not available.

**Acute inhalation toxicity**

Product test data not available.

**Skin corrosion/irritation**

Product test data not available.

**Serious eye damage/eye irritation**

Product test data not available.

**Sensitization**

Product test data not available.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available.

**Carcinogenicity**

Not considered carcinogenic by NTP, IARC, and OSHA

**Teratogenicity**

Product test data not available.

**Reproductive toxicity**

Product test data not available.

**Mutagenicity**

Product test data not available.

**Aspiration Hazard**

Product test data not available.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Polyglycol**

**Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, > 5,000 mg/kg

**Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, > 2,000 mg/kg

**Acute inhalation toxicity**

The LC50 has not been determined. Vapor may cause irritation of the upper respiratory tract (nose and throat).

**Skin corrosion/irritation**

Brief contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation**

May cause slight temporary eye irritation.

**Sensitization**

For skin sensitization:

Did not cause sensitisation on laboratory animals.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

No relevant data found.

**Teratogenicity**

No relevant data found.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

No relevant data found.

**Aspiration Hazard**

No aspiration toxicity classification

**Lactic acid**

**Acute oral toxicity**

LD50, Rat, 3,543 - 4,936 mg/kg

**Acute dermal toxicity**

LD50, Rabbit, > 2,000 mg/kg

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, dust/mist, > 7.94 mg/l

**Skin corrosion/irritation**

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Not classified as corrosive to the skin according to DOT guidelines.

**Serious eye damage/eye irritation**

May cause eye irritation.

**Sensitization**

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:  
No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause respiratory irritation.  
Route of Exposure: Inhalation  
Target Organs: Respiratory Tract

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Teratogenicity**

Did not cause birth defects or any other fetal effects in laboratory animals.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

In vitro genetic toxicity studies were negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

**Toxicity**

**Polyglycol**

**Acute toxicity to fish**

No relevant data found.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, *Leuciscus idus* (Golden orfe), 96 Hour, > 100 mg/l

**Lactic acid**

**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 Hour, 130 mg/l, Method Not Specified.

LC50, Bluegill sunfish (*Lepomis macrochirus*), static test, 96 Hour, 130 mg/l, Method Not Specified.

**Acute toxicity to aquatic invertebrates**

EC50, *Daphnia magna*, static test, 48 Hour, 240 mg/l, OECD Test Guideline 202 or Equivalent



**Acute toxicity to algae/aquatic plants**

EC50, Algae (*Selenastrum capricornutum*), static test, 70 Hour, Growth rate, 3.5 mg/l, OECD Test Guideline 201 or Equivalent

**Persistence and degradability****Polyglycol**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Biodegradation:** > 60 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301B or Equivalent

**Lactic acid**

**Biodegradability:** Material is expected to be readily biodegradable.

10-day Window: Pass

**Biodegradation:** 88 %

**Exposure time:** 30 d

**Method:** Method Not Specified.

**Chemical Oxygen Demand:** 0.9 mg/mg

**Bioaccumulative potential****Polyglycol**

**Bioaccumulation:** No bioconcentration is expected because of the relatively high water solubility.

**Lactic acid**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** -0.62

**Bioconcentration factor (BCF):** 3.2 Calculated.

**Mobility in soil****Polyglycol**

No relevant data found.

**Lactic acid**

No data available.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

**Treatment and disposal methods of used packaging:** Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

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**14. TRANSPORT INFORMATION**

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**DOT**

Not regulated for transport

**Classification for SEA transport (IMO-IMDG):****Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Not regulated for transport

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**15. REGULATORY INFORMATION**

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**OSHA Hazard Communication Standard**

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

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Immediate health hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**California (Proposition 65)**

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

**United States TSCA Inventory (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.

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## 16. OTHER INFORMATION

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### Hazard Rating System

#### NFPA

Health	Fire	Reactivity
2	0	0

### Revision

Identification Number: 101114904 / 1304 / Issue Date: 03/24/2015 / Version: 3.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

ROHM AND HAAS ELECTRONIC MATERIALS LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.