



# lyondellbasell

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## Material Safety Data Sheet

Product Code 01P34AS  
Revision Date 05/03/2010  
Supersedes 09/11/2007  
Date Printed 05/11/2010

### Inhalation:

Seek fresh air immediately. If breathing is difficult, seek medical advice.

### Eye Contact:

Flush with water for at least 15 minutes. If irritation develops, get medical attention.

### Skin Contact:

Remove contaminated clothing. Wash affected areas with plenty of soap and water. If irritation develops, seek medical advice.

### Ingestion:

Drink lots of water to dilute substance. Get medical attention immediately or contact a poison control center for advice.

## 5. FIRE FIGHTING MEASURES

### Suitable Fire Extinguishing Media:

Carbon dioxide, dry chemical, foam.

### Unsuitable Fire Extinguishing Media:

If water must be used, use as a spray only.

### Special Exposure Hazards:

Avoid heat, sparks and open flames.

### Hazardous Decomposition Products:

Carbon dioxide, carbon monoxide, acrid fumes.

### Special Protective Equipment for Fire Fighters:

Standard turnout gear for combustible liquids.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Standard turnout gear for combustible liquids.

### Environmental Precautions:

Do not allow the substance or solutions of the substance to be discharged into lakes, streams, ponds or public waters.

### Cleanup Procedures:

Small spills should be absorbed by dirt, sand, vermiculate, or other suitable absorbent. Large spills may be pumped (if liquid) or scooped (if solid) into closed containers for recovery or disposal.

## 7. HANDLING AND STORAGE

### Handling:

Wear safety glasses or goggles, rubber gloves and apron when handling material. If transferring to or from the container, use proper grounding procedures.

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**Storage:**

Do not store in close proximity to excessive heat, open flames, strong acids or strong bases. To minimize product degradation, avoid prolonged exposure of the substance to air. Keep container tightly closed when not in use.

**Ventilation:**

Mechanical exhaust may be needed in confined and poorly ventilated areas.

**Safety Stations:**

An eyewash station and a safety shower should be readily available and clearly marked.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:**

None found.

**Exposure Controls:**

**Respiratory Protection:**

A respirator is not normally required. If vapor concentration is suspected to be high, use a NIOSH approved organic vapor respirator

**Eye Protection:**

Wear safety glasses or goggles.

**Hand Protection:**

Wear standard industrial type rubber gloves.

**Skin Protection:**

A rubber apron is recommended when handling the material for extended periods of time.

**Personal Hygiene:**

Wash hands and other exposed areas of skin with soap and water after handling the material.

**Environmental Controls:**

No environmental exposure controls required under Community environmental protection laws.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**General Information:**

**Property**

**Result**

**Appearance:**

Clear, nearly colorless liquid.

**Odor:**

Fruity.

**Important Health, Safety and Environmental Information:**

**Property**

**Result**

**pH:**

Not determined.

**Boiling Point:**

378F (192C) (Thermal Analyzer)

**Flash Point:**

169F (76C) (Tag Closed Cup)

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**Melting Point:** Not determined (CC)  
**Flammability:** Not determined.  
**Explosive Properties:** Not an explosive.  
**Oxidizing Properties:** Not Determined.  
**Vapor Pressure:** ca. 0.2 mmHG @ 20 C  
**Solubility in Water (Weight%):** Not determined  
**Solubility in Alcohol(Weight%):** 100  
**Fat Solubility:** Not Determined.  
**Partition Coefficient (n-Octanol/Water):** Not determined  
**Viscosity:** Not determined.  
**Vapor Density (air=1):** ca.5.4  
**Evaporation Rate (Butyl Acetate=1):** Not determined.  
**Autoignition Temperature:** Not Determined.  
**Specific Gravity:** 0.833 @ 25 C

## 10. STABILITY AND REACTIVITY

**Stability:**

Substance is stable and unreactive under conditions of normal use.

**Conditions to Avoid:**

Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

**Materials to Avoid:**

Avoid contact with strong acids, strong bases, and materials that react with oxygenated terpenes.

**Hazardous Decomposition Products:**

Carbon dioxide, carbon monoxide, acrid fumes.

## 11. TOXICOLOGICAL INFORMATION

**Primary Target Organs:** Eyes, skin.  
**Primary Entry Route(s):** Eyes, Skin.  
**Medical Conditions Aggravated by Overexposure** No known conditions.

**Acute Toxicity:**

<u>Parameter</u>	<u>Result</u>
<b>Acute Oral Toxicity:</b>	LD50 (rat): 3600 mg/kg.
<b>Acute Inhalation Toxicity:</b>	Not determined.
<b>Acute Dermal Toxicity:</b>	LD50 (rabbit): >5000 mg/kg
<b>Eye Irritancy:</b>	Contact with the undiluted material may cause irritation. FFIDS: Rabbit eye irritation tests yielded results of mildly irritating (RIFM, 1980b & 1980c).

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**Dermal Irritancy:** Applied full strength under occlusion to the skin of rabbit for 24 hours was mildly irritating.  
 FFIDS: human repeated insult patch test on 109 male & female volunteers. No irritation observed (RIFM, 1995).  
 FFIDS: human repeated insult patch test on 42 volunteers, slight, transient irritation observed in a few subjects (RIFM, 1964).  
 FFIDS: pre-test for human maximization study, 5 healthy male volunteers. No irritation observed (RIFM, 1973a)

**Skin Sensitization:** FFIDS: human repeated insult patch test on 25 male and 84 female volunteers. No sensitization reactions were observed. (RIFM,1995)

**Mutagenicity:** Not determined

**Teratogenicity:** Not determined.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not determined.

**Mobility:** Not determined.

**Persistence and Degradability:** FFIDS: Sealed vessel CO(2) production test based on OECD Guideline 301

B yielded that dihydromyrcenol is inherently ultimately biodegradable, but that the 95% confidence limits overlapped the pass limit (RIFM, 1997a)  
 FFIDS: Manometric Respiratory Test (OECD Guidelines method No. 301F) yielded that dihydromyrcenol was regarded as readily biodegradable (RIFM, 2001).  
 FFIDS: Manometric Respiratory Test (OECD Guidelines method No. 301F) yielded that dihydromyrcenol was not readily biodegradable (RIFM, 1996).  
 FFIDS: Manometric Respiratory Test (OECD Guidelines method No. 301C) yielded that dihydromyrcenol was regarded as inherently bio degradable (RIFM, 1997).

**Bioaccumulation Potential:** Not determined.

**Ozone Depleting Substances:** None.

## 13. DISPOSAL CONSIDERATIONS

**Disposal Methods:** This material, if discarded, is not considered a hazardous waste by EPA regulations 40 CFR 261.

**Safe Handling of Wastes:** Refer to Section 8 for information pertaining to personal protective equipment and exposure controls when handling this material for disposal.

**Community Provisions:** Dispose of this material at a local, state or federally approved landfill, incinerator or recovery facility.

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## 14. TRANSPORT INFORMATION

**Label Codes:** If shipping in totes and in a sealed container ( note 20' or 40' on the pick list ), no Combustible placards required. Placard all other combustible totes on two sides.

**ERG:** 128  
**Marine Pollutant:** No.

## 15. REGULATORY INFORMATION

### Chemical Inventories Status:

**USA (TSCA):** Compliant  
**European Community (EINECS):** Compliant  
**Canada (DSL):** Compliant  
**Australia (AICS):** Compliant  
**Japan (IEC):** Compliant  
**Korea (KECI/ECL):** Not Compliant  
**Philippines (PICCS):** Compliant  
**China (SEPA/CICS):** Compliant

### USA: Federal:

**SARA Title III Section 302/304:** None.  
**SARA Title III Section 311/312:** Yes  
**SARA Title III Section 313:** None.  
**Hazardous Air Pollutants:** None.

### USA: States:

None.

### International:

NOT DETERMINED

## 16. OTHER INFORMATION

### EU Classifications:

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Symbol Code(s):                      Symbol Phrase(s):  
 Risk Phrase Codes:                  Risk Phrases:

Safety Phrase Codes:                  Safety Phrases:

**U.S. NPCA/HMIS Hazardous Materials Information System**

<b>Health</b>	<b>Flammability</b>	<b>Reactivity</b>	<b>Personal Protection*</b>
<b>1</b>	<b>2</b>	<b>1</b>	<b>C</b>

- 0 - Minimal Hazard: No significant risk to health.
  - 1 - Slight Hazard: Irritation or minor reversible injury possible.
  - 2 - Moderate Hazard: Temporary or minor injury may occur.
  - 3 - Serious Hazard: Major injury likely unless prompt action is taken and medical treatment is given.
  - 4 - Severe Hazard: Life-threatening, major or permanent damage may result from single or repeated exposures.
- \* This rating will generally suffice for normal operating conditions. Please note however, that the type of personal protection utilized may change based on specific use conditions (refer to Section 8).

**Reason(s) for (Re)issue:**

Legal entity change

**Technical Contact(s):**

Environmental and Regulatory Affairs Dept.

**References:**

RIFM - Research Institute for Fragrance Materials RTECS- Registry of Toxic Effects of Chemical Substances

**Acronyms:**

NTP(National Toxicology Program); IARC (International Agency for Research on Cancer); OSHA (Occupational Health and Safety Administration); DOT (U.S. Dept. of Transportation)

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