SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier
   Product name: Eastman(TM) DB Acetate
   Product No.: EAN 902865. P0180305

Additional identification
   Chemical name: diethylene glycol monobutyl ether acetate
   CAS-No.: 124-17-4

Relevant identified uses of the substance or mixture and uses advised against
   Identified uses: Solvent
   Uses advised against: None known.

Details of the supplier of the safety data sheet
   Manufacturer / Supplier
   Eastman Chemical Company
   200 South Wilcox Drive
   Kingsport, TN 37660-5280 US
   +14232292000

   Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

Emergency telephone number:
   For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.
   For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

Hazard Classification: The product has not been classified as hazardous according to the legislation in force.

OSHA Specified Hazards: not applicable

Hazard(s) not otherwise classified (HNOC):
   Prolonged or repeated skin contact may cause drying, cracking, or irritation.

SECTION 3: Composition/information on ingredients

Substances / Mixtures

General information:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Concentration</th>
<th>Additional identification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether acetate</td>
<td>100%</td>
<td>CAS-No.: 124-17-4</td>
<td>#</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).

©COPYRIGHT 2015 BY EASTMAN CHEMICAL COMPANY
SECTION 4: First aid measures

Description of first aid measures

Inhalation: Treat symptomatically. Move to fresh air. Get medical attention if symptoms persist.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Seek medical advice. Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.

Most important symptoms and effects, both acute and delayed:
None known.

Indication of any immediate medical attention and special treatment needed

Hazards: None known.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General Fire Hazards: None known.

Extinguishing media


Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture: Forms peroxides of unknown stability.

Advice for firefighters

Special fire fighting procedures: None known.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Wear appropriate personal protective equipment.
Environmental Precautions: Avoid release to the environment.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

Precautions for safe handling: Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Do not allow to evaporate to near dryness. Do not distill to near dryness. Addition of water or appropriate reducing materials will lessen peroxide formation.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Store away from heat and light.

Specific end use(s): Solvent

SECTION 8: Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Country specific exposure limits have not been established or are not applicable unless listed below.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether acetate</td>
<td>ST ESL</td>
<td>850 µg/m3</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)</td>
</tr>
<tr>
<td></td>
<td>AN ESL</td>
<td>85 µg/m3</td>
<td>US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)</td>
</tr>
</tbody>
</table>

Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment


Eye/face protection: It is a good industrial hygiene practice to minimize eye contact.
Skin protection

Hand Protection: It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, chemical-resistant gloves should be worn. Contact health and safety professional or manufacturer for specific information.

Other: No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Colorless
Odor: pleasant
Odor Threshold: Not determined.
pH: No data available.
Freezing Point: -32 °C
Boiling Point: 247 °C
Flash Point: 96 °C (Setaflash Closed Cup)
Evaporation Rate: 0.01
Flammability (solid, gas): No data available.
Flammability Limit - Upper (%): No data available.
Flammability Limit - Lower (%): No data available.
Vapor pressure: 0.05 mbar (20 °C)
Vapor density (air=1): 7
Specific Gravity: 0.98 (20 °C)
Solubility(ies)

Solubility in Water: Moderate
Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Autoignition Temperature: 249 °C (ASTM E659)
Decomposition Temperature: Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
Dynamic viscosity: No data available.
Kinematic viscosity: 2.9 mm²/s (25 °C)
Explosive properties: No data available.
Oxidizing properties: No data available.

SECTION 10: Stability and reactivity

Reactivity: None known.

Chemical Stability: Stable

Possibility of Hazardous Reactions: Forms peroxides of unknown stability.

Conditions to Avoid: None at ambient temperatures.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information

Information on likely routes of exposure
Inhalation: None known.
Ingestion: None known.
Skin contact: Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Eye contact: None known.

Information on toxicological effects

Oral
Product: No data available.
Specified substance(s): diethylene glycol monobutyl ether acetate
Oral LD₅₀ (Mouse): 6,470 mg/kg

Dermal
Product: No data available.
Specified substance(s): diethylene glycol monobutyl ether acetate
Dermal LD₅₀ (Rabbit): 5.75 mL/kg

Inhalation
Product: No data available.
Specified substance(s): diethylene glycol monobutyl ether acetate
LDLo (Rat, 4 h): > 400 ppm

Repeated dose toxicity
Product: No data available.
Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
- diethylene glycol monobutyl ether acetate (Rabbit, 24 h): Slight

Serious Eye Damage/Eye Irritation
Product: No data available.

Specified substance(s):
- diethylene glycol monobutyl ether acetate (rabbit, 24 h): slight

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

Specified substance(s):
- diethylene glycol monobutyl ether acetate IARC Not Listed. NTP Not Listed. OSHA Not Listed.

Toxicity to reproduction
Product: No data available.

Developmental toxicity
Product: No data available.

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.
SECTION 12: Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

SECTION 13: Disposal considerations

Waste treatment methods

General information: No data available.
**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements. Incinerate.

**SECTION 14: Transport information**

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company’s Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

**DOT**

Class not regulated

**IMDG - International Maritime Dangerous Goods Code**

Class not regulated

**IATA**

Class not regulated

**SECTION 15: Regulatory information**

Safety, health and environmental regulations/legislation specific for the substance or mixture:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

**WHMIS (Canada) Status:** noncontrolled

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical List**

GLYCOL ETHERS CATEGORY

**OSHA:** nonhazardous
TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-04138

Philippines Inventory (PICCS): This product is listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 1, Flammability - 1, Chemical Reactivity - 1

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: Not relevant.

Key literature references and sources for data: No data available.

Training information: No data available.

Issue Date: 05/14/2015

SDS No.: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

Disclaimer: