

# Material Safety Data Sheet

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# **Butyl Glycol Acetate (BGA)**

# **Section 1: Chemical Product and Company Identification**

Molecular formula: C8H16O3

CAS Nr: 112-07-2 EINECS: 203-933-3

Molecular weight: 160.21

Synonyms: Ethylene glylol butylether acetate, 2-Butoxyethyl acetate, Ethylene Glycol Monobutyl Ether Acetate

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# Section 2: Composition and Information on Ingredients

Composition:

Name CAS # % by Weight {2-}Butoxyethyl acetate 112-07-2 100

**Toxicological Data on Ingredients:** 

2-Butoxyethyl acetate: ORAL (LD50): Acute: 2400 mg/kg [Rat]. 3200 mg/kg [Mouse].

DERMAL (LD50): Acute: 1500 mg/kg [Rabbit].

#### Section 3: Hazards Identification

## **Potential Acute Health Effects:**

Hazardous in case of skin contact (permeator), of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

## **Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to

aggravate medical condition.

## Section 4: First Aid Measures

#### **Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least minutes. Cold water may be used. Get medical attention if irritation occurs.

#### **Skin Contact:**

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

#### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream.

Seek immediate medical attention.

#### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

#### Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband.

Get medical attention if symptoms appear.

Serious Ingestion: Not available.

# **Section 5: Fire and Explosion Data**

Flammability of the Product: Combustible. Auto-Ignition Temperature: 340°C (644°F)

Flash Points: CLOSED CUP: 71.111°C (160°F). OPEN CUP: 87.78°C (190°F).

Flammable Limits: LOWER: 0.88%

Products of Combustion: These products are carbon oxides (CO, CO2).

## Fire Hazards in Presence of Various Substances:

Flammable in presence of open flames and sparks, of heat, of oxidizing materials.

## **Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in resence of static discharge: Not available.

# Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. **Special Remarks on Fire Hazards:** When heated to decomposition it emits acrid smoke and irritating fumes.

Special Remarks on Explosion Hazards: Not available.

## Section 6: Accidental Release Measures

## Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority equirements.

## Large Spill:

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

# Section 7: Handling and Storage

#### **Precautions:**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with skin. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

#### Storage:

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

# **Section 8: Exposure Controls/Personal Protection**

#### **Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

## **Personal Protection:**

Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

## Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## **Exposure Limits:**

TWA: 5 from NIOSH TWA: 33 (mg/m3) from NIOSH Consult local authorities for acceptable exposure limits.

## **Section 9: Physical and Chemical Properties**

Physical state and appearance: Liquid.

Odor: Fruity.

Taste: Not available.

Molecular Weight: 160.21 g/mole

Color: Clear Colorless.

pH (1% soln/water): Not available. Boiling Point: 191.3°C (376.3°F) Melting Point: -63.5°C (-82.3°F) Critical Temperature: Not available. Specific Gravity: 0.9422 (Water = 1) Vapor Pressure: 0 kPa (@ 20°C) Vapor Density: 5.5 (Air = 1)

Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.

Volatility: Not available.

Dispersion Properties: See solubility in water.

Solubility:

Soluble in cold water. Solubility in water @ 20 deg. C: 15000 mg/l. Soluble in hyrocarbons and organic solvents

# Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources (sparks, flames), incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

# **Section 11: Toxicological Information**

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** 

Acute oral toxicity (LD50): 2400 mg/kg [Rat]. Acute dermal toxicity (LD50): 1500 mg/kg [Rabbit].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (permeator), of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

**Special Remarks on other Toxic Effects on Humans:** 

Acute Potential Health Effects: Skin: May cause mild skin irritation. It can be absorbed through the skin may affect the kidneys (hematuria), blood (normocytic anemia) and other systemic effects. Eyes: May cause mild eye irritation. Inhalation: May cause respiratory tract irritation. It may also affect behavior/central nervous system with nausea, vomiting, headache and other CNS effects. Ingestion: May cause digestive tract irritation with nausea, vomiting, diarrhea. May affect the kidneys (Albuminuria, Hematuria), and behavior/central nervous system (headache, drowsiness, slurred speech, recrudescent stuttering, staggering gait, temor, changes in personality, blurred vision). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the urinary system.

# **Section 12: Ecological Information**

Ecotoxicity: Not available.

BOD5 and COD: Not available.

# **Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely.

However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

# **Section 13: Disposal Considerations**

#### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

# **Section 14: Transport Information**

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

Special Provisions for Transport: Not applicable.

# Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: 2-Butoxyethyl acetate

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

#### WHMIS (Canada):

CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).

#### DSCL (EEC)

R20/21- Harmful by inhalation and in contact with skin. S24- Avoid contact with skin.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

# HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 2

Reactivity: 0

Personal Protection: g

#### National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 2 Reactivity: 0

Specific hazard:

# **Protective Equipment:**

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Wear appropriate respirator when ventilation is inadequate. Safety glasses.

# **Section 16: Other Information**

References: Not available.

Other Special Considerations: Not available.

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