



MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004

MSDSUSA/ANSI/EN/150000001211/Version 5.0

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Eastman(TM) Butyric Acid
Product Identification Number(s)	00152-00, P00152TK, P00152NB, P0015200, P0015201, P0015202, P0015203, P0015204, P0015210, P0015207
Manufacturer/Supplier	Eastman Chemical Company 200 South Wilcox Drive Kingsport, TN 37660-5280 US +14232292000
MSDS Prepared by	Eastman Product Safety and Health
Chemical Name	butanoic acid
Synonym(s)	00152-00 900060
Molecular Formula	C4H8O2
Molecular Weight	88.11
Product Use	chemical intermediate
OSHA Status	hazardous

For emergency health, safety & environmental information, call 800-EASTMAN.

For emergency transportation information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN.

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

<u>Weight %</u>	<u>Component</u>	<u>CAS Registry No.</u>
100%	butyric acid	107-92-6

3. HAZARDS IDENTIFICATION

DANGER!
CAUSES SEVERE SKIN AND EYE BURNS
HARMFUL IF ABSORBED THROUGH SKIN OR SWALLOWED
VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT
COMBUSTIBLE LIQUID AND VAPOR

HMIS® Hazard Ratings: Health - 3, Flammability -2, Chemical Reactivity - 0

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.

4. FIRST-AID MEASURES

©COPYRIGHT 2004 BY EASTMAN CHEMICAL COMPANY

Visit our website at www.EASTMAN.com or call 001-423-229-2000.

EASTMAN

MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004

MSDSUSA/ANSI/EN/150000001211/Version 5.0

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Eyes: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Call a physician or poison control center immediately. Do NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, dry chemical, carbon dioxide, alcohol foam

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

Hazardous Combustion Products: carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards: Combustible.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment. Eliminate all ignition sources. Neutralize spill area and washings with soda ash or lime. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat and flame. Keep from contact with oxidizing materials.

Storage: Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Ventilation: 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

EASTMAN

MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004

MSDSUSA/ANSI/EN/150000001211/Version 5.0

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.

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.

Eye Protection: Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Recommended Decontamination Facilities: eye bath, washing facilities, safety shower

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid

Color: colorless

Odor: rancid

Odor Threshold: 300 ppm

Specific Gravity: 0.958 (20 °C)

Vapor Pressure: 20 °C; 0.57 mbar

Vapor Density: 3

Melting Point: -5 °C

Boiling Point: 164 °C

Solubility in Water: complete

Octanol/Water Partition Coefficient: P: 6.2; log P: 0.79

Flash Point: 71 °C (Tag closed cup)

Lower Flammable Limit: 2.19 %(V)

Upper Flammable Limit: 13.4 %(V)

Autoignition Temperature: 448 °C (ASTM D2155)

Thermal Decomposition Temperature: Thermal stability not tested. Low stability hazard expected at normal operating temperatures.

10. STABILITY AND REACTIVITY

Stability: Not fully evaluated. Materials containing similar structural groups are normally stable.

Incompatibility: Material reacts violently with strong oxidizing agents

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

EASTMAN

MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004

MSDSUSA/ANSI/EN/150000001211/Version 5.0

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

Oral LD-50:(rat)	2,940 - 8,790 mg/kg
Oral LD-50:(mouse)	<400 mg/kg
Dermal LD-50: (rabbit)	6.35 mL/kg
Dermal LD-50: (rabbit)	530 mg/kg
Skin Irritation (rabbit)	moderate
Skin Irritation (guinea pig)	severe
Eye Irritation (rabbit)	severe

12. ECOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

Oxygen Demand Data:

BOD-5: 340 - 1,160 mg/g

BOD-20: 1,450 mg/g

COD: 1,650 mg/g

Acute Aquatic Effects Data:

24 h LC-50 (bluegill sunfish): 200 mg/l

48 h LC-50 (golden orfe): 250 - 480 mg/l

48 h LC-50 (daphnid): 61 mg/l

24 h EC-50 (daphnid): 55 mg/l

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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.*



MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004
MSDSUSA/ANSI/EN/150000001211/Version 5.0

DOT (USA)

Reportable Quantity: 2,270 kg (butyric acid)

Possible Shipping Description(s):

Butyric acid
8 UN 2820 III

Sea - IMDG (International Maritime Dangerous Goods)

Possible Shipping Description(s):

BUTYRIC ACID
8 UN 2820 III

Air - ICAO (International Civil Aviation Organization)

Possible Shipping Description(s):

Butyric acid
8 UN 2820 III

15. REGULATORY INFORMATION

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

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/3, E

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard
fire hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

EASTMAN

MATERIAL SAFETY DATA SHEET

Revision Date: 08/30/2004

MSDSUSA/ANSI/EN/150000001211/Version 5.0

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.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product is listed on EINECS or otherwise complies with EINECS requirements. **EINECS Number:** 203-532-3

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.

16. OTHER INFORMATION

Visit our website at www.EASTMAN.com or call 001-423-229-2000.

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.

Highlighted areas indicate new or changed information.