

MATERIAL SAFETY DATA SHEET

ELAN CHEMICAL COMPANY, INC

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1. Product /Company Identification

Product Name: **NATURAL ETHYL BUTYRATE**

Manufacturer: Elan Chemical Co. Inc.
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U.S.A.

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2. Composition/Information on Ingredient

Synonyms: Ethyl butanoate
CAS Number: 105-54-4
FEMA: 2428
Molecular Formula: $C_6H_{12}O_2$ Molecular Weight: 116.16

3. Hazards Identification

Emergency Overview

Flammable.

Harmful by inhalation and if swallowed.

Irritant. Irritating to eyes, respiratory system and skin.

	<u>HMIS</u>	<u>NFPA</u>
Health	2	2
Flammability	3	3
Reactivity	0	0

4. First Aid Measures

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious.
Call a physician.

Inhalation Exposure: If inhaled, move to fresh air. If not breathing give artificial respiration. IF breathing is difficult, give oxygen.

Skin Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes

5. Fire Fighting Measures

Flammable Hazards: **YES**

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

Flash Point: 26°C (78.8°F)

Extinguishing Material: Water Spray
Carbon Dioxide
Dry Chemical Powder
Foam

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Fire Fighting Hazards: Emits toxic fumes under fire conditions. Flammable liquid.

6. Accidental Release Measures

In case of leak or spill: Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

Personal Protection: Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Clean up Methods: Absorb on sand or vermiculite and place in a closed container using nonsparking tools, and transport outdoors. Ventilate area and wash spill site after clean up is complete.

7. Handling and Storage Procedures

Handling: Do not breathe vapor. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.

Storage: Keep container tightly closed. Keep away from heat, sparks and open flame.

8. Exposure Controls/ PPE

Engineering: Use nonsparking tools. Safety shower and eye bath.

Respiratory: At a minimum, workers should wear a NIOSH-approved full-face air-purifying respirator.

Eyes: Chemical Safety goggles

Skin: Chemical resistant gloves.

Ventilation: Mechanical exhaust required.

General Hygiene Measures: Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

9. Physical/Chemical Properties

Appearance:	Colorless to very pale yellow liquid
Odor:	Powerful, fruity banana-like.
Boiling Point:	119-121° C
Melting Point:	-93.3- -93°C
Flash Point:	26 °C (78.8° F)
Vapor Density:	4 g/l
Specific Gravity:	0.870-0.878
Refractive Index:	1.390-1.398

10. Stability and Reactivity

Conditions to Avoid:	Heat
Materials to Avoid:	Strong oxidizing agents, Bases, Acids.
Hazardous Decomposition Products:	Carbon Monoxide, Carbon Dioxide.

11. Toxicological Information

Exposure Effects:	
Skin Contact:	Causes skin irritation.
Skin Absorption:	May be harmful if absorbed through skin.
Eye Contact:	Causes eye irritation.
Inhalation:	May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion:	May be harmful if swallowed.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

12. Ecological Information

No Data Available.

13. Disposal Considerations

Disposal:	Contact a licensed professional waste disposal service to dispose of this material. This material may be burned in a chemical incinerator equipped with an afterburner and scrubber, but exert extra care in igniting as this material is highly flammable. Dispose of in accordance with local, state, and federal regulations.
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14. Transportation Information

Ground (DOT)	
Proper shipping Name:	Ethyl butyrate

UN#: 1180
Class: 3
Packing group: Packing Group III
Hazard label: Flammable liquid.
PIH: not PIH

IATA
Proper shipping name: Ethyl butyrate
IATA UN Number: 1180
Hazard class: 3
Packing group: III

15. Regulatory Information

EU Classifications:
Symbol of Danger: Xi
Indication of Danger: Irritant
R: 10 36/37/38
Risk Statements: Flammable. Irritating to eyes, respiratory system and skin
S: 16 26 36
Safety Statements: Keep away from sources of ignition- no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

US Classifications:
Indication of Danger: Flammable. Irritant.
Risk Statements: Irritating to eyes, respiratory system and skin
Safety Statements: Keep away from sources of ignition- no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

United States Regulatory Information
SARA Listed: No
TSCA Inventory Item: Yes

Canada:

WHMIS Classification: This product has been classified in accordance with the hazard criteria Of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No
NDSL: No

16. Additional Information

This material safety data sheet is intended to meet the specific requirements of 29 CFR 1910.1200 and should be used accordingly. While the information has been obtained from sources believed to be accurate and reliable, no warranty, expressed or implied, can be made with regard to its completeness, correctness or accuracy. Any users or handlers of this product who are not under the direct control of Elan Chemical Co., Inc. are responsible for evaluating this information in light of their particular situation and are responsible for all losses, damages

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