1. Product /Company Identification

Product Name: NATURAL ISO AMYL ALCOHOL – TECHNICAL GRADE

Manufacturer: Elan Chemical Co. Inc.
268 Doremus Ave.
Newark, NJ 07105
U.S.A.
Phone: (973)344-8014
Fax: (973)344-5880
Emergency: 800-424-9300 (Chemtrec)

2. Composition/Information on Ingredient

Synonyms: 3-Methyl 1-Butanol, Isopentyl Alcohol
CAS Number: 123-51-3
FEMA: 2057
Molecular Formula: C_5 H_{12} O
Molecular Weight: 88.15

3. Hazards Identification

Emergency Overview
Combustible (USA). Flammable (EU). Harmful.
Harmful by inhalation and if swallowed.
Irritant. Irritating to eyes, respiratory system and skin.
Risk of serious damage to eyes. Readily absorbed through skin. Target organ: Central nervous system, Liver

<table>
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<tr>
<th>HMIS</th>
<th>NFPA</th>
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<tr>
<td>Health</td>
<td>2*</td>
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<td>Flammability</td>
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<td>Reactivity</td>
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* additional chronic hazards present

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.

Flash Point: 43º C (109.4ºF)

Explosion Limits: Lower 1.2%, Upper: 9%

Autoignition Temp: 340º C

Extinguishing Material: Water Spray Carbon Dioxide Dry Chemical Powder Foam

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

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

6. Accidental Release Measures

Procedure to be followed in case of leak or spill:
Evacuate Area

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

Clean up Methods: Cover on dry lime, sand or soda ash and place in a closed container, and hold for waste disposal. 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 and open flame. Store in a cool, dry place.

8. Exposure Controls/ PPE

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: Wash contaminated clothing before reuse. Wash thoroughly after handling.

9. Physical/Chemical Properties

Appearance: Colorless to pale yellow liquid
Odor: Undetermined
Boiling Point: 131º C
Melting Point: -117ºC
Flash Point: 43ºC (109.4º F)
Vapor Density: >3 g/l
Specific Gravity: 0.809
Refractive Index: 1.407

10. Stability and Reactivity

Stability: Stable

Materials to Avoid: Strong oxidizing agents. Acid anhydrides, Acid Chlorides.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide.

11. Toxicological Information

Exposure Effects:

   Skin Contact: Causes skin irritation.
   Skin Absorption: Readily absorbed through skin. 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.


Signs or symptoms of exposure: Prolonged contact can cause: Dizziness. Narcotic effect. Nausea, headache, and vomiting. Coughing, chest pains, difficulty in breathing.
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: This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Dispose of in accordance with local, state, and federal regulations.

14. Transportation Information

Ground (DOT) & Air (IATA)
Proper shipping Name: Pentanols
UN# 1105
Class: 3
Packing Group: III
Hazard Label: Flammable

15. Regulatory Information

Symbol for Danger: Xn
Indication of Danger: Harmful

R: 10 20 37 66
Risk Statements: Flammable. Harmful by inhalation. Irritating to respiratory system. Repeated exposure may cause skin dryness or cracking.

S: 46
Safety Statements: If swallowed, seek medical advice immediately and show container label.

US Classifications:
Risk Statements: Flammable. Harmful by inhalation. Irritating to respiratory system. Repeated exposure may cause skin dryness or cracking.
Safety Statements: If swallowed, seek medical advice immediately and show container label.

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

Canada:
DSL: Yes
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 or expenses that result while this material is under their control. It is also the responsibility of the users and handlers to observe any and all laws and regulations (Federal, State and Local) concerning the transportation, use, handling, storage and disposal of this product.