

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 181.00

Revision Date: July 26, 2011

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### n-Butyl Alcohol

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

n-Butyl alcohol

Synonym: 1-butanol

CAS#: 71-36-3

### SECTION 3 — HAZARDS IDENTIFICATION

Clear, colorless liquid. Wine-like odor.

Moderately toxic by inhalation or ingestion. Irritant to body tissue. Absorbed through the skin.

Avoid vapors.

Flammable liquid.

#### FLINN AT-A-GLANCE

Health-2

Flammability-3

Reactivity-1

Exposure-2

Storage-3

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Induce vomiting. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Class 1C flammable liquid.

Flash point: 35 °C Flammable limits: Lower: 1.4% Upper: 11.2% Autoignition Temperature: 343 °C

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-1

F-3

R-0

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines, and amides.

Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor can.

Store in a cool, dry place. Use and dispense in a hood.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: PEL 100 ppm; REL-Ceiling 50 ppm (OSHA, NIOSH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear colorless liquid with a wine like odor.  
Solubility: Soluble in water (20%). Miscible with alcohol.  
Formula:  $\text{CH}_3(\text{CH}_2)_2\text{CH}_2\text{OH}$   
Formula weight: 74.14

Boiling point: 117.7 °C  
Melting point: -89 °C  
Refractive index: 1.3988  
Specific gravity: 0.81

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with aluminum, chromium trioxide, and oxidizing materials.  
When heated to decomposition, it emits acrid smoke and fumes. Substance may develop explosive hydroperoxides.  
Shelf life: Fair, substance may oxidize.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Severe irritant, gastrointestinal disturbances,  
Chronic effects: N.A.  
Target organs: Central nervous system, ears, liver, kidneys, and blood.

ORL-RAT LD<sub>50</sub>: 790 mg/kg  
IHL-RAT LC<sub>50</sub>: 8000 ppm/4H  
SKN-RBT LD<sub>50</sub>: 3400 mg/kg

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply, before proceeding.  
Flinn Suggested Disposal Method #18b is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Butanols  
Hazard class: 3, Flammable Liquid  
UN number: UN1120  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (200-751-6), RCRA code U031.

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**