SAFETY DATA SHEET: BUTYL ALCOHOL

1. IDENTIFICATION
Product Name: BUTYL ALCOHOL
Synonyms: n-Butyl alcohol; 1-Butanol; n-Butanol
Formula and Formula Weight: CH3(CH2)3OH  74.12
Integra numbers beginning with: B884.10; B884.50
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>OSHA Classification</th>
<th>Hazard Category</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity - Oral</td>
<td>4</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>2</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Eye Damage/Irritation</td>
<td>2A</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (single exposure)</td>
<td>3</td>
<td>May cause respiratory irritation. May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>Flammable Liquids</td>
<td>3</td>
<td>Flammable liquid and vapor.</td>
</tr>
</tbody>
</table>

Signal Word: Warning

Precautionary Statements

**Prevention:**
Keep away from heat, sparks, open flames, hot surfaces. – No smoking.
Keep container tightly closed.
Ground, bond container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting, equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, eye protection, face protection.

**Response**
If swallowed: Call a poison center, doctor if you feel unwell.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center, doctor if you feel unwell.
Specific treatment (see first aid section on this label)
Rinse mouth.
If skin irritation occurs: Get medical advice, attention.
If eye irritation persists: Get medical advice, attention.
Take off contaminated clothing and wash it before reuse.

**Storage**
Store in a well ventilated place. Keep container tightly closed. Keep cool.
Store locked up.

**Disposal**
Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl alcohol</td>
<td>n-Butyl alcohol; 1-Butanol; n-Butanol</td>
<td>00071-36-3</td>
<td>100</td>
</tr>
</tbody>
</table>

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4. FIRST AID MEASURES
Inhalation: Remove person to fresh air and keep comfortable for breathing.
Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. If irritation persists, seek medical attention.
Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Seek medical attention if irritation develops.
Ingestion: If conscious, rinse mouth and give victim large amounts of water. Seek medical attention.
Additional notes: Symptoms and effects include irritation of skin, eyes, nose, throat; headache, dizziness, drowsiness; corneal inflammation, blurred vision, lacrimation, abnormal visual intolerance to light; dermatitis; possible auditory nerve damage, hearing loss; central nervous system depression

5. FIRE-FIGHTING MEASURES
Extinguishing Media: Carbon dioxide, dry chemical or alcohol foam. Water may be ineffective.
Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
Specific Hazards: Vapors may flow along surfaces to distant ignition sources and flash back. Contact with oxidizers may cause fire.
Hazardous combustion products: Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES
Spill Procedures: Remove all potential ignition sources. Prevent spread of spill. Wear full protective equipment including suitable respiratory protection. Absorb with sand or inert material. Place into suitable container for disposal.

7. HANDLING AND STORAGE
Incompatible Materials: Incompatible with strong acids and strong oxidizers. Aluminum, aldehydes, alkali metals and halogens.
Storage and Handling: Store locked up in a cool, dry, well-ventilated flammable liquids storage area or cabinet away from incompatible materials. Keep away from heat and ignition sources. Keep containers tightly closed and protect them from physical damage. Bond and ground containers when transferring liquid. Use only non-sparking tools and take precautionary measures against static discharge. No smoking.
Keep away from heat, sparks, open flames, hot surfaces. – No smoking.
Keep container tightly closed.
Ground, bond container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting, equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust, fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION
OSHA & ACGIH Exposure Limits:
n-Butyl alcohol
OSHA TWA: 100 ppm; 300 mg/m3  ACGIH TWA: 20 ppm; 61 mg/m3
Engineering Controls: Use general or local exhaust ventilation to meet TLV and PEL requirements.
Respiratory Protection: Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved full facemask chemical cartridge respirator with an organic vapor cartridge.
Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure. Butyl rubber gloves are recommended.
Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers.
Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Clear colorless liquid
Odor: Strong, mildly-alcoholic odor
Odor Threshold: 0.03 ppm
pH: Not available
Melting/Freezing Point:  -90 °C
Initial Boiling Point and Boiling Range: 117 °C
Flash Point: 29 °C
Evaporation Rate: 0.46 Butyl Acetate=1
Flammability: Flammable
Flammable or Explosive Limits (% by volume in air) Upper: 11.3 Lower: 1.4
Vapor Pressure: 4 mm Hg @20°C
Vapor Density: 2.6
Relative Density: 0.81 Water=1
16. OTHER INFORMATION

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NE = Not established, NA = Not applicable or Not available