



Section 1 - Chemical Product and Company Identification

Product Name sec-Butyl Alcohol extrapure AR, 99.5%
Product Code 58308
CAS No 78-92-2
Use for Laboratory Chemicals.
Company Name Sisco Research Laboratories Pvt. Ltd.
Address 608, B Wing, Satellite Gazebo, Andheri Ghatkopar Link Road,
Andheri (E), Mumbai - 400 099, India

Section 2 - Composition/Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
78-92-2	sec-Butanol	<=100	201-158-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Flammable. Irritating to eyes and respiratory system. Vapours may cause drowsiness and dizziness.

Potential Health Effects

Eye: Causes eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May be harmful if inhaled. Inhalation of vapors may cause drowsiness and dizziness.
Chronic:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Get medical aid. Wash mouth out with water.
Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - Fire Fighting Measures



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- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire.
- Extinguishing Media:** Use water spray to cool fire-exposed containers. Water may be ineffective. Use water fog, dry chemical, carbon dioxide, or regular foam.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

- Handling:** Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing.
- Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. May form explosive peroxides on prolonged storage.

Section 8 - Exposure Control / Personal Protection



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Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 78-92-2:

United Kingdom, WEL - TWA: 100 ppm TWA; 308 mg/m³ TWA United Kingdom, WEL - STEL: 150 ppm STEL; 462 mg/m³ STEL

United States OSHA: 150 ppm TWA; 450 mg/m³ TWA

Belgium - TWA: 100 ppm VLE; 307 mg/m³ VLE

France - VME: 100 ppm VME; 300 mg/m³ VME

Germany: 100 ppm TWA; 300 mg/m³ TWA

Japan: 100 ppm OEL; 300 mg/m³ OEL

Malaysia: 100 ppm TWA; 303 mg/m³ TWA

Netherlands: 150 ppm MAC; 450 mg/m³ MAC

Russia: 10 mg/m³ TWA (vapour)

Spain: 100 ppm VLA-ED; 308 mg/m³ VLA-ED

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Boiling Point:	99 deg C @760mmHg (210.20°F)
Freezing/Melting Point:	-115 deg C (-175.00°F)
Solubility in water:	125 g/l (20°C)
Specific Gravity/Density:	0.800
Molecular Formula:	C ₄ H ₁₀ O
Molecular Weight:	74.12

Section 10 - Stability and Reactivity



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Chemical Stability: Stable under normal temperatures and pressures. This material may be sensitive to peroxide formation.

Conditions to Avoid: Incompatible materials, ignition sources.

Incompatibilities with Other Materials Ignition sources, acids, acid chlorides, acid anhydrides.

Hazardous Decomposition Products Carbon monoxide, carbon dioxide.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 78-92-2: EO1750000

LD50/LC50: RTECS:

CAS# 78-92-2: Inhalation, rat: LC50 = 48500 mg/m³/4H;
Oral, rabbit: LD50 = 4893 mg/kg;
Oral, rabbit: LD50 = 4900 mg/kg;
Oral, rat: LD50 = 2193 mg/kg;
Oral, rat: LD50 = 6200 mg/kg;
Skin, rat: LD50 = >2 gm/kg;
Other: Skin, rat: LD50 > 2000 mg/kg

Carcinogenicity: sec-Butanol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information. Mutagenicity: Ames-test: negative.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50: 3670 mg/L; 96h; .
Daphnia: Daphnia: EC50: 3750 mg/L; 24h; .
Bacteria: Pseudomonas putida: EC50: 500 mg/L; 16h; .

Other: Readily biodegradable.
Log POW: 0.61

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

Shipping Name:	BUTANOLS	BUTANOLS	BUTANOLS
Hazard Class:	3	3	3
UN Number:	1120	1120	1120
Packing Group:	III	III	III

Section 15 - Regulatory Information



Product Code 58308

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 10 Flammable.

R 36/37 Irritating to eyes and respiratory system.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

S 7/9 Keep container tightly closed and in a well-ventilated place.

S 13 Keep away from food, drink and animal feeding stuffs.

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 46 If swallowed, seek medical advice immediately and show this container or label.

WGK (Water Danger/Protection)

CAS# 78-92-2: 1

Canada

CAS# 78-92-2 is listed on Canada's DSL List

US Federal

TSCA

CAS# 78-92-2 is listed on the TSCA Inventory.

Section 16 - Other Information

Sisco Research Laboratories Pvt. Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.