





Material Safety Data Sheet

| NFPA | HMIS | Personal Protective Equipment | | | | | | |
|---|---|-------------------------------|---|-------------|---|------------|---|---|
|  | <table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>0</td></tr></table> | Health Hazard | 1 | Fire Hazard | 3 | Reactivity | 0 | <div></div> <div>See Section 15.</div> |
| Health Hazard | 1 | | | | | | | |
| Fire Hazard | 3 | | | | | | | |
| Reactivity | 0 | | | | | | | |

| Section 1. Chemical Product and Company Identification | | | Page Number: 1 | |
|--|--|--|---|--|
| Common Name/ Trade Name | Kauri-Butanol | | Catalog Number(s). | K-101 |
| | | | CAS# | Mixture. |
| Manufacturer | SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | | RTECS | Not applicable. |
| | | | TSCA | TSCA 8(b) inventory: Copal gum; 1-Butanol |
| Commercial Name(s) | Not available. | | CI# | Not applicable. |
| Synonym | Not available. | | <u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000 | |
| Chemical Name | Not applicable. | | | |
| Chemical Family | Aliphatic alcohol or glycol. (Solvent.) | | | |
| Chemical Formula | Not applicable. | | | |
| Supplier | SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | | | |

| Section 2. Composition and Information on Ingredients | | | | | |
|---|-----------|--|---------------------------|---------------------------|-------------|
| | | Exposure Limits | | | |
| Name | CAS # | TWA (mg/m ³) | STEL (mg/m ³) | CEIL (mg/m ³) | % by Weight |
| 1) Copal gum | 9000-14-0 | | | | 15.4 |
| 2) {1-}Butanol | 71-36-3 | | | 152 | 84.6 |
| Toxicological Data on Ingredients | | 1-Butanol: ORAL (LD50): Acute: 790 mg/kg [Rat.]. DERMAL (LD50): Acute: 3400 mg/kg [Rabbit.]. VAPOR (LC50): Acute: 8000 ppm 4 hour(s) [Rat.]. | | | |

| Section 3. Hazards Identification | |
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| Potential Acute Health Effects | Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer). Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. |
| Potential Chronic Health Effects | Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. |

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Section 4. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention. |
| Skin Contact | After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing. |
| Serious Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention. |
| Inhalation | Allow the victim to rest in a well ventilated area. Seek immediate medical attention. |
| Serious Inhalation | Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention. |
| Ingestion | Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention. |
| Serious Ingestion | Not available. |

Section 5. Fire and Explosion Data

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| Flammability of the Product | Flammable. |
| Auto-Ignition Temperature | The lowest known value is 343°C (649.4°F) (1-Butanol). |
| Flash Points | The lowest known value is CLOSED CUP: 28.9°C (84°F). OPEN CUP: 36.1°C (97°F). (Cleveland). (1-Butanol) |
| Flammable Limits | The greatest known range is LOWER: 1.4% UPPER: 11.2% (1-Butanol) |
| Products of Combustion | These products are carbon oxides (CO, CO ₂). |
| Fire Hazards in Presence of Various Substances | Highly flammable in presence of open flames and sparks. Flammable in presence of heat, of oxidizing materials, of reducing materials, of combustible materials. |
| Explosion Hazards in Presence of Various Substances | Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. |
| Fire Fighting Media and Instructions | Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. |
| Special Remarks on Fire Hazards | May form explosive mixtures with air. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME (1-Butanol) |
| Special Remarks on Explosion Hazards | Not available. |

Section 6. Accidental Release Measures

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| Small Spill | Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. |
| Large Spill | Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. |

Section 7. Handling and Storage

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| Precautions | Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents. |
| Storage | Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than 37.8°C (100°F). |

Section 8. Exposure Controls/Personal Protection

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| Engineering Controls | Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location. |
| Personal Protection | Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. |
| Exposure Limits | 1-Butanol CEIL: 152 (mg/m ³) Consult local authorities for acceptable exposure limits. |

Section 9. Physical and Chemical Properties

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|--------------------------------------|--|--------------|----------------|
| Physical state and appearance | Liquid. | Odor | Not available. |
| Molecular Weight | Not applicable. | Taste | Not available. |
| pH (1% soln/water) | Not available. | Color | Not available. |
| Boiling Point | The lowest known value is 117.7°C (243.9°F) (1-Butanol). | | |
| Melting Point | May start to solidify at -89.5°C (-129.1°F) based on data for: 1-Butanol. | | |
| Critical Temperature | Not available. | | |
| Specific Gravity | The only known value is 0.81 (Water = 1) (1-Butanol). | | |
| Vapor Pressure | The highest known value is 4.39 mm of Hg (@ 20°C) (1-Butanol). | | |
| Vapor Density | The highest known value is 2.55 (Air = 1) (1-Butanol). | | |
| Volatility | Not available. | | |
| Odor Threshold | The highest known value is 1.2 ppm (1-Butanol) | | |
| Water/Oil Dist. Coeff. | The product is equally soluble in oil and water. | | |
| Ionicity (in Water) | Not available. | | |
| Dispersion Properties | See solubility in water, methanol, diethyl ether, n-octanol. | | |
| Solubility | Easily soluble in methanol, diethyl ether. Partially soluble in cold water, hot water, n-octanol. | | |

Section 10. Stability and Reactivity Data

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| Stability | The product is stable. |
| Instability Temperature | Not available. |
| Conditions of Instability | Not available. |
| Incompatibility with various substances | Highly reactive with oxidizing agents, reducing agents. Slightly reactive to reactive with organic materials, acids, alkalis. |
| Corrosivity | Non-corrosive in presence of glass. |
| Special Remarks on Reactivity | Not available. |
| Special Remarks on Corrosivity | Not available. |
| Polymerization | No. |

Section 11. Toxicological Information

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| Routes of Entry | Dermal contact. Eye contact. Inhalation. Ingestion. |
| Toxicity to Animals | WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 790 mg/kg [Rat.]. (1-Butanol). Acute dermal toxicity (LD50): 3400 mg/kg [Rabbit.]. (1-Butanol). Acute toxicity of the vapor (LC50): 8000 ppm 4 hour(s) [Rat.]. (1-Butanol). |
| Chronic Effects on Humans | Not available. |
| Other Toxic Effects on Humans | Very hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer). |
| Special Remarks on Toxicity to Animals | Not available. |
| Special Remarks on Chronic Effects on Humans | Can cause gastrointestinal disturbances. (1-Butanol) |
| Special Remarks on other Toxic Effects on Humans | Exposure can cause nausea, headache and vomiting. (1-Butanol) |

Section 12. Ecological Information

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| Ecotoxicity | Not available. |
| BOD5 and COD | Not available. |
| Products of Biodegradation | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation | The products of degradation are more toxic. |
| Special Remarks on the Products of Biodegradation | Not available. |

Section 13. Disposal Considerations

Waste Disposal

Section 14. Transport Information**DOT Classification** Class 3: Flammable liquid.**Identification** : Butanol, solution (1-Butanol) : UN1120 PG: III**Special Provisions for Transport** Not available.**DOT (Pictograms)****Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations

Pennsylvania RTK: 1-Butanol
 Massachusetts RTK: 1-Butanol
 TSCA 8(b) inventory: Copal gum; 1-Butanol

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).**Other Classifications** **WHMIS (Canada)** CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

DSCL (EEC)

R10- Flammable.
 R38- Irritating to skin.
 R41- Risk of serious damage to eyes.

HMIS (U.S.A.)

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|---------------------|---|
| Health Hazard | 1 |
| Fire Hazard | 3 |
| Reactivity | 0 |
| Personal Protection | h |

National Fire Protection Association (U.S.A.)

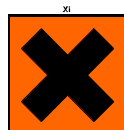
Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)**DSCL (Europe) (Pictograms)****TDG (Canada) (Pictograms)**

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ADR (Europe)
(Pictograms)

Protective Equipment



Gloves.



Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

MSDS Code K100S

References Not available.

Other Special Considerations Not available.

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Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.