

SPECTRUM CHEMICAL MFG CORP. -- 1-BUTANOL --- 6810-00-124-0509

===== Product Identification =====

Product ID:1-BUTANOL

MSDS Date:09/26/1997

FSC:6810

NIIN:00-124-0509

MSDS Number: CJMNB

=== Responsible Party ===

Company Name:SPECTRUM CHEMICAL MFG CORP.

Address:14422 SOUTH SAN PEDRO STREET

City:GARDENA

State:CA

ZIP:90248-2985

Country:US

Info Phone Num:310-516-8000

Emergency Phone Num:310-516-8000

Resp. Party Other MSDS Num.:B4140

Preparer's Name:E. BRULL

Chemtrec

Ind/Phone:(800)424-9300

CAGE:63415

=== Contractor Identification ===

Company Name:CHEMICAL COMMODITIES AGENCY, INC.

Address:27447 PACIFIC STREET

Box:City:HIGHLAND

State:CA

ZIP:92346-2640

Country:US

Phone:909-864-2310

Contract Num:SP0450-99-M-C782

CAGE:60777

Company Name:INDUSTRIAL CHEMICAL COMMODITIES INC

Address:15944 DERWOOD RD

Box:City:ROCKVILLE

State:MD

ZIP:20855

Country:US

Phone:800-284-5279

Contract Num:SP0450-99-M-NG98

CAGE:1ELU0

Company Name:SPECTRUM LABORATORY PRODUCTS INC

Address:14422

S SAN PEDRO ST
Box:City:GARDENA
State:CA
ZIP:90248-2027
Country:US
Phone:310-516-8000/FAX: 310-516-9843
CAGE:63415

===== Composition/Information on Ingredients =====

Ingred Name:1-BUTANOL (SARA 313) (CERCLA)
CAS:71-36-3
RTECS #:EO1400000
= Wt:100.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:100 PPM (300 MG/M3)
Code:F
ACGIH TLV:50 PPM
ACGIH STEL:C 152 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

===== Hazards Identification =====

LD50 LC5
0 Mixture:LD50 (ORAL, RAT) IS 790 MG/KG (RTECS).
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS: LIVER, KIDNEYS, CNS
(LABEL). VERY DANGEROUS IN CASE OF SKIN CONTACT (IRRITANT,
PERMEATOR), OF EYE CONTACT (IRRITANT), OF INGESTION, OF INHALATION.
VERY SLIGHTLY TO SLIGHTLY DANGEROUS IN CASE OF SKIN CONTACT
(SENSITIZER). SEVERE OVER EXPOSURE CAN RESULT IN DEATH. CAN BE
FATAL IF INHALED OR INGESTED. MAY IRRITATE EYES AND SKIN.

INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATE RING, AND
ITCHING. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, REDDENING,
AND OCCASIONALLY BLISTERING. CHRONIC - EXPOSURE TO TOXIC MATERIAL
MAY PRODUCE GENERAL DETERIORATION OF HEALTH BY AN ACCUMULATION IN
ONE OR MANY HUMAN ORGANS.

Explanation of Carcinogenicity:NONE
Effects of Overexposure:SEVERE OVER EXPOSURE CAN RESULT IN DEATH. CAN
BE FATAL IF INHALED OR INGESTED. MAY IRRITATE EYES AND SKIN.
INFLAMMATION

OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING, AND ITCHING. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, REDDENING, AND OCCASIONALLY BLISTERING.

===== First Aid Measures =====

First Aid:EYE: CHECK AND REMOVE CONTACT LENSES. IMMEDIATELY FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS OPEN. DO NOT USE AN EYE OINTMENT. SEEK MEDICAL ATTENTION. SKIN: GENTLY AND THOROUGHLY WASH WITH RUNNING WATER AND NON-ABRASIVE SOAP. INHALATION: REMOVE TO FRESH AIR. LOOSEN TIGHT CLOTHING. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF VICTIM IS NOT BREATHING, PERFORM MOUTH-TO-MOUTH RESUSCITATION. (WARNING: IT MAY BE DANGEROUS TO DO SO). SEEK IMMEDIATE MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. HAVE CONSCIOUS PERSON DRINK SEVERAL GLASSES OF WATER OR MILK. SEEK IMMEDIATE MEDICAL ATTENTION.

===== Fire Fighting Measures =====

Flash Point Method:CC

Flash Point

: =28.9C, 84.F

Autoignition Temp: =343.C, 649.4F

Lower Limits:1.4%

Upper Limits:11.2%

Extinguishing Media:WATER SPRAY, CARBON DIOXIDE, SAND, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY. COOL CONTAINING VESSELS WITH WATER JET.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. MOVE CONTAINERS FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK.

Unusual Fire/Explosion Hazard:NO INFORMATION IS AVAILABLE.

===== Accidental Release Measures =====

Spill Release Procedures: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 IGNITOR. STOP LEAK IF WITHOUT RISK. ABSORB WITH DRY EARTH, SAND/NON-COMBUSTIBLE MATERIAL. PREVENT ENTRY INTO SEWERS, BASEMENTS OR CONFINED AREAS; DIKE IF NEEDED

ELIMINATE IGNITION SOURCES

Neutralizing Agent:NOT RELEVANT

===== Handling and Storage =====

Handling and Storage Precautions: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 EQUIPMENTS CONTAINING THIS MATERIAL. A REFRIGERATED ROOM WOULD BE PREFERRABLE.

Other Precautions:

KEEP LOCKED UP. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION. DO NOT INGEST. DO NOT BREATHE GAS, FUMES, VAPORS/SPRAY. IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT. IF INGESTED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THE LABEL. AVOID CONTACT WITH SKIN AND EYES. KEEP AWAY FROM INCOMPATIBLES.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IF WORKING IN CONFINED AREAS, IF EXCESSIVE MISTING IS EXPECTED OR IF EXPOSURE MAY OR DOES EXCEED RECOMMENDED PERMISSIBLE EXPOSURE LIMITS (PEL), WEAR NIOSH-APPROVED RESPIRATORY PROTECTION FOR ORGANIC VAPORS (REFER TO 29 CFR 1910.134).

Ventilation:MECHANICAL (GENERAL AND/OR LOCAL EXHAUST, EXPLOSION-PROOF) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:NEOPRENE IF REPEATED CONTACT POSSIBLE

Eye Protection:CHEMICAL SAFETY GOGGLES (SPASH)

Other Protective Equipment:EYE WASH STATION, SAFETY SHOWER, INDUSTRIAL-TYPE WORK CLOTHING, APRON, LAB COAT. VAPOR RESPIRATOR. BOOTS.

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health
EXPOSURE LIMITS: TWA: 50 PPM.

===== Physical/Chemical Properties =====

HCC:F3

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:117.7C, 243.8F

Melt/Freeze Pt:-89.5C, -129.1F

Vapor Pres:4.39 MM OF HG @ 68F

Vapor Density:2.55

Spec Gravity:0.81

Viscosity:2.84 CPS @70F

Evaporation Rate & Refer

ence:2.5 (N-BUTYL ACETATE=1)

Solubility in Water:PARTIAL

Appearance and Odor:CLEAR, COLORLESS LIQUID - SLIGHT ODOR

Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

HIGHLY REACTIVE WITH OXIDIZING AGENTS, REDUCING AGENTS. VERY SLIGHTLY
TO SLIGHTLY REACTIVE WITH ORGANIC MATERIALS, ACIDS, ALKALIS

Stability Condition to Avoid:NO ADDITIONAL REMARK

Hazardous Decomposition Products:CARBON MONOXIDE, CARBON
DIOXIDE MAY BE
FORMED.

===== Toxicological Information =====

Toxicological Information:DERMAL (LD50) ACUTE 3400 MG/KG (RABBIT),
VAPOR (LC50): ACUTE 8000 PPM (RAT) (4 HOURS)

===== Ecological Information =====

Ecological:THE PRODUCTS OF DEGREDEATIONS ARE MORE TOXIC. PRODUCTS OF
BIODEGREDEATION: ARE CARBON MONOXIDE AND CARBON DIOXIDE.

===== Disposal Considerations =====

Waste Disposal Met

hods:RECYCLE TO PROCESS, IF POSSIBLE. CONSULT YOUR
LOCAL OR REGIONAL AUTHORITIES.

===== Regulatory Information =====

Federal Regulatory Information:THE FOLLOWING PRODUCT IS LISTED ON THE
TOXIC SUBSTANCE CONTROL ACT (TSCA) INVENTORY LIST: 1-BUTANOL.

State Regulatory Information:CALIFORNIA PROPOSITION 65: NONE. REGULATED
BY THE STATES OF PENNSYLVANIA AND MASSACHUSETTS: 1-BUTANOL

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