

EM SCIENCE, A DIVISION OF EM INDUSTRIES -- 84-9790, BUTYL ALCOHOL -- 6810-00-241-4709

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

Product ID:84-9790, BUTYL ALCOHOL

MSDS Date:03/10/1995

FSC:6810

NIIN:00-241-4709

Status Code:A

MSDS Number: CLDWL

=== Responsible Party ===

Company Name:EM SCIENCE, A DIVISION OF EM INDUSTRIES

Address:480 DEMOCRAT RD

Box:70

City:GIBBSTOWN

State:NJ

ZIP:08027

Country:US

Info Phon

e Num:856-423-6300

Emergency Phone Num:800-424-9300

Chemtre Ind/Phone:(800)424-9300

CAGE:KO703

=== Contractor Identification ===

Company Name:CAROLINA BIOLOGICAL SUPPLY CO

Address:2700 YORK RD

Box:City:BURLINGTON

State:NC

ZIP:27215-3387

Country:US

Phone:800-227-1150/910-584-0381

Contract Num:MDA414-01-P-0251

CAGE:59896

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Contract Num:MDA414-01-P-03

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Composition/Information on Ingredients  
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Ingred Name:BUTYL ALCOHOL  
CAS:71-36-3  
RTECS #:EO1400000  
= Wt:100.  
OSHA PEL:300 MG/M3;100 PPM  
ACGIH STEL:C152 MG/M3;C50 PPM  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

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Hazards Identification  
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Routes of Entry: Inh  
Absorption: YES Skin: UNKNOWN Ingestion: YES  
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO  
Explanation of Carcinogenicity: THIS MATERIAL IS NOT LISTED AS CANCER  
CAUSING AGENT.  
Effects of Overexposure: HARMFUL IF INHALED OR SWALLOWED; CAUSES  
HEADACHE, NAUSEA, GASTROINTESTINAL DISTURBANCES. VAPOR IRRITATING  
TO EYES AND RESPIRATORY PASSAGES. LARGE CONCENTRATIONS OR CONTINUED  
OVEREXPOSURE MAY CAUSE HEARING LOSS, KIDNEY OR LIVER INJURY.  
IRRITATING ON CONTACT WITH EYES OR SKIN.  
M  
Medical Cond Aggravated by Exposure: KIDNEY AND LIVER CONDITIONS.

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First Aid Measures  
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First Aid: GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE. SKIN:  
WASH THOROUGHLY WITH SOAP AND WATER. EYES: IMMEDIATELY FLUSH  
THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. INHALATION: REMOVE TO  
FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF BREATHING IS STOPPED.  
INGESTION: IF CONSCIOUS, DRINK WATER AND INDUCE VOMITING  
IMMEDIATELY AS DIRECTED BY

Y MEDICAL PERSONNEL. NEVER GIVE ANYTHING  
BY MOUTH TO AN UNCONSCIOUS PERSON. REMOVE CONTAMINATED CLOTHING  
AND WASH BEFORE REUSE.

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

Flash Point Method:TCC

Flash Point:=35.C, 95.F

Lower Limits:1.40

Upper Limits:11.20

Extinguishing Media:USE "ALCOHOL" FOAM, CARBON DIOXIDE, DRY CHEMICAL.

Fire Fighting Procedures:WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.  
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:VAPOR CAN TRAVEL DISTANCES TO IGNITION  
SOURCE AND FLASH BACK.

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

Spill Release Procedures:EVACUATE THE AREA OF UNNECESSARY PERSONNEL.  
WEAR SUITABLE PROTECTIVE EQUIPMENT. ELIMINATE ANY IGNITION SOURCES  
UNTIL AREA IS DETERMINED TO BE FREE FROM EXPLOSION OR FIRE HAZARDS.  
CONTAIN THE RELEASE AND ELIMINATE THE SOURCE, IF THIS CAN BE DONE  
WITHOUT RISK. TAKE UP AND CONTAINERIZE FOR PRO  
PER DISPOSAL AS  
DIRECTED. COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS ON  
REPORTING RELEASES. "SEE OTHER"

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

Handling and Storage Precautions:KEEP CONTAINER TIGHTLY CLOSED. STORE  
IN A COOL AREA AWAY FROM IGNITION SOURCES AND OXIDIZERS. DO NOT  
BREATHE VAPORS. DO NOT GET INTO EYES, ON SKIN, OR ON CLOTHING.  
ELECTRICALLY GROUND ALL EQUIPMENT WHEN HANDLING THIS PRODUCT.

Other Precautions:SPILL: REFER TO REGULATORY INFORMATION FOR REPORTABLE  
QUANTITY & OTHER REGULATORY DATA. EM SCIENCE RECOMMENDS SPILL-X  
ABSORBENT AGENT FOR VARIOUS TYPES OF SPILLS. ADDITIONAL INFORMATION  
CAN BE PROVIDED THROUGH THE EM SCIENCE TECHNICAL SERVICE  
DEPARTMENT (856) 423-6300. USE SX0863 SOLVENT SPILL TREATMENT  
KIT.

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

Respiratory Protection:IF WORKPLACE EXPOSURE LIMITS OF PRODUCT OR ANY  
COMPONENT IS EXCEEDED, A NIOSH/MSHA APPROVED

AIR SUPPLIED

RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL.  
OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS(NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS.

Ventilation:ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPEMEMENTED TO REDUCE EXPOSURE.MATERIAL MUST BE HANDLED/TRANSFERRED IN APPROVED FUME HOOD.

Protective Gloves:BUTYL RUBBER, NEOPRENE, PVC OR EQUIVALENT.

Eye Protection:SAFETY GLASSES WITH SIDE SHIELDS

Other Protective Equipmen

t:EYE WASH AND SAFETY EQUIPMENT.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. DO NOT TAKE INTERNALLY.

Supplemental Safety and Health

PRODUCT NAME: BUTYL ALCOHOL. SYNONYMS: N-1-BUTANOL. CHEMICAL FAMILY: ALIPHATIC ALCOHOL. FORMULA: CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OH. MOLECULAR WEIGHT: 74.12. CATALOG NUMBERS: BX1777, BX 1780; BX1780S.

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

HCC:F2

Boiling Pt:=117.7C, 243.9F

Melt/Freeze Pt:=-89.C, -128.2F

Vapor Pres:420C

Vapor Densi

ty:2.55

Spec Gravity:0.810

Evaporation Rate & Reference:0.46 (BUAC=1)

Solubility in Water:7.7%

Appearance and Odor:CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC ALCOHOL ODOR.

Percent Volatiles by Volume:99+%

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

Stability Indicator/Materials to Avoid:YES

ACIDS, OXIDIZERS, OTHER: HALOGENS, ALUMINUM, ALKALI METALS.

Stability Condition to Avoid:HEAT, CONTACT WITH IGNITION SOURCES.

Hazardous Decomposition Products:COX.

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

Toxicological Information:TOXICITY DATA. ORL-RAT LD50: 790 MG/KG.  
IHL-RAT LC50: 8000 PPM/4H. IHL-HMN TCLO: 25 PPM. TOXICOLOGICAL  
FINDINGS: TEST ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODUCE  
ADVERSE MUTAGENIC AND REPRODUC TIVE EFFECTS. CITED IN REGISTRY OF  
TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS).

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

Waste Disposal Methods:EPA WASTE NUMBERS: U031  
, D001. TREATMENT:  
INCINERATION, FUELS BLENDING OR RECYCLE. CONTACT YOUR LOCAL  
PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT  
SITES. ALWAYS CONTACT A PERMITTED WA STE DISPOSER (TSD) TO ASSURE  
COMPLIANCE WITH ALL CURRENT, LOCAL, STATE AND FEDERAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information:DOT PROPER SHIPPING NAME: BUTANOL. DOT ID NUMBER:  
UN1120.

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

SARA Title III Information:BUTYL ALCOHOL: OSHA FLOOR LIST-Y. SARA  
313-Y. 5000 DEMINIMIS FOR SARA 313 (%)-1.0.  
Federal Regulatory Information:THE CAS NUMBER OF THIS PRODUCT IS LISTED  
ON THE TSCA INVENTORY.

===== Other Information =====

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