

CENTRAL SCIENTIFIC CO -- N-BUTYL ALCOHOL --

Flam. Cab.

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

Product ID: N-BUTYL ALCOHOL
MSDS Date: 01/08/1996
FSC: NIIN: Submitter: D DG
Status Code: A
MSDS Number: CJZFJ
=== Responsible Party ===
Company Name: CENTRAL SCIENTIFIC CO
Address: 3300 CENCO PKY
City: FRANKLIN PARK
State: IL
ZIP: 60131-1364
Country: US
Info Phone Num: 847-451-0150
Emergency Phone Num: (800) 424-9300
Preparer's Name: MICHAEL REZEJA
Chemtrec Ind/Phone: (800) 424-9300
CAGE: 0ZGA2

=== Contractor Identification ===
Company Name: CENTRAL SCIENTIFIC CO
Address: 3300 CENCO PKY
Box: City: FRANKLIN PARK
State: IL
ZIP: 60131-1364
Country: US
Phone: 847-451-0150
.: 0ZGA2

Company Name: CENTRAL SCIENTIFIC CO (FORMERLY IN FRANKLIN PARK, IL.)
Address: 8315 LEE HWY
Box: City: FAIRFAX
State: VA
ZIP: 22031
Country: US
Phone: 800-621-4778
Contract Num: MDA414-98-A-0017-0112
CAGE: 11273

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

Ingred Name: N-BUTYL ALCOHOL
CAS: 71-36-3
RTECS #: E01400000
= Wt: 100.
Other REC Limits: NOT PROVIDED.
OSHA PEL: 300 MG/M3; 100 PPM
ACGIH STEL: C152 MG/M3; C50 PPM
EPA Rpt Qty: 5000 LBS
DOT Rpt Qty: 5000 LBS

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

LD50 LC50 Mixture: LD50 (ORAL, RAT) 2,500 MG/KG
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
th Hazards Acute and Chronic: EFFECTS OF OVEREXPOSURE: INHALATION:
VAPORS CAUSE IRRITATION TO THE UPPER RESPIRATORY TRACT. HIGH VAPOR
CONCENTRATIONS CAN PRODUCE HEADACHE, DIZZINESS, DROWSINESS, CNS

DEPRESSION. EYES: CONTACT WITH THE LIQUID OR VAPOR CAUSES IRRITATION. PROLONGED AND REPEATED EXPOSURE MAY RESULT IN CORNEAL INJURY. SKIN: PROLONGED AND REPEATED CONTACT CAUSES DRYING AND CRACKING OF THE SKIN, WHICH RESULT IN SKIN DERMATITIS. INGESTION: HARMFUL IF SWALLOWED. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION, HEADACHES, DIZZINESS, AND NAUSEA.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:INHALATION: VAPORS CAUSE IRRITATION TO THE UPPER RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS CAN PRODUCE HEADACHE, DIZZINESS, DROWSINESS, CNS DEPRESSION. EYES: CONTACT WITH THE LIQUID OR VAPOR CAUS ES IRRITATION. PROLONGED AND REPEATED EXPOSURE MAY RESULT IN CORNEAL INJURY. SKIN: PROLONGED AND REPEATED CONTACT CAUSES DRYING AND CRACKING OF THE SKIN, WHICH RESULT IN SKIN DERMATITIS. INGESTION: HA RMFUL IF SWALLOWED. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION, HEADACHES, DIZZINESS, AND NAUSEA.

Medical Cond Aggravated by Exposure:NOT PROVIDED.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. EYES: FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES, LI FTING UPPER AND LOWER EYELIDS OCCASIONALLY. GET IMMEDIATE MEDICAL ATTENTION. SKIN: FLUSH THOROUGHLY WITH WATER, THEN WASH WITH MILD SOAP AND WATER. INGESTION: IF SWALLOWED, IF CONSCIOUS, GIVE ONE OR T WO GLASSES OF WATER TO DRINK, INDUCE VOMITING AND CALL A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR DROWSY PERSON.

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

Flash Point Method:TCC

Flash Point:=36.7C, 98.F

Lower Limits:1.4

Upper Limits:11.2

Extinguishing Media:CARBON DIOXIDE (CO2), DRY CHEMICAL (ABC), ALCOHOL FOAM, WATER FOG.

Fire Fighting Procedures:IN FIRE CONDITIONS, WEAR A NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. COOL FIRE-EXPOSED CONTAINERS WITH WATER. (1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800. 6, GUIDE PAGE NO. 26).

Unusual Fire/Explosion Hazard:FIRE OR EXCESSIVE HEAT MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS; CAN REACT VIGOROUSLY WITH OXIDIZING MATERIALS. CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRE SHOULD BE COOLED WITH WATER TO PREVENT PRESSURE BUILD UP WHICH COULD RESULT IN CONTAINER RUPTURE.

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

Spill Release Procedures:WEARING PROPER PROTECTIVE EQUIPMENT, PROVIDE ADEQUATE VENTILATION. ELIMINATE ALL SOURCES OF IGNITION. ABSORB IN SAND, EARTH OR VERMICULITE. CAREFULLY SWEEP UP AND REMOVE. FLUSH SPILL AREA WITH WATER. DO NOT ALLOW WASH WATER TO POLLUTE WATER WAYS AND STREAMS.

Neutralizing Agent:NOT RELEVANT.

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

Handling and Storage Precautions:KEEP AWAY FROM HEAT, SPARKS, FLAMES .

DO NOT STORE IN COPPER OR ITS ALLOYS. WASH THOROUGHLY AFTER HANDLING. DO NOT STORE IN ALUMINUM EQUIPMENT AT TEMPERATURES OVER 120F. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. KEEP OUT OF REACH OF CHILDREN.

Other Precautions:READ LABEL ON CONTAINER BEFORE USING. DO NOT WEAR CONTACT LENSES WHEN WORKING WITH CHEMICALS. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID BREATHING VAPORS. USE WITH ADEQUATE VENTILATION. REMOVE AND WASH CONTAMINATED CLOTHING. FOR LABORATORY USE ONLY. NOT FOR DRUG, FOOD, OR HOUSEHOLD USE.

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

Respiratory Protection:IN THE LABORATORY, WORK IN VENTILATION HOOD..
USE AN APPROVED ALL PURPOSE ORGANIC VAPOR CANISTER MASK FOR EMERGENCY CLEAN UP OF SPILLS, OR AN ATMOSPHERE-SUPPLYING RESPIRATOR.
Ventilation:LOCAL EXHAUST RECOMMENDED. MECHANICAL EXHAUST RECOMMENDED.
Protective Gloves:RUBBER
Eye Protection:CHEMICAL SAFETY GLASSES.
Other Protective Equipment:GOGGLES, SMOCK, APRON, PROPER GLOVES, VENTILATION HOOD, FIRE EXTINGUISHER, EYE WASH STATION.
Work Hygienic Practices:NOT PROVIDED.
Supplemental Safety and Health
NONE

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

HCC:F3
NRC/State Lic Num:NOT RELEVANT.
Boiling Pt:=116.7C, 242.F
Melt/Freeze Pt:=-88.7C, -128.F
Decomp Temp:Decomp Text:NOT PROVIDED.
Vapor Pres:4.1 @ 20C/68F
Vapor Density:2.6
Spec Gravity:0.8108
pH:NOT RELEVANT.
Viscosity:NOT PROVIDED.
Evaporation Rate & Reference:0.43 (N-BUTYL ACETATE=1)
Solubility in Water:MODERATE
Appearance and Odor:COLORLESS, MOBILE LIQUID; STRONG ODOR
Percent Volatiles by Volume:100
Corrosion Rate:NOT PROVIDED.

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

Stability Indicator/Materials to Avoid:YES
STRONG MINERAL ACIDS, TRONG OXIDIZERS, COPPER AND ITS ALLOYS, ALUMINUM CONTAINERS.
Stability Condition to Avoid:EXCESSIVE TEMPERATURE AND HEAT.
Hazardous Decomposition Products:THERMAL DECOMPOSITION OR BURNING MAY PRODUCE CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS.

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

Toxicological Information:ACUTE DERMAL LD50: 4.2 G/KG (RABITT).
INHALATION LC50 AT 8000 PPM/4H (RAT)

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

Ecological:NOT PROVIDED.

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

ste Disposal Methods:DISCHARGE, TREATMENT OR DISPOSAL MAY BE SUBJECT TO FEDERAL, STATE OR LOCAL LAWS. THESE DISPOSAL GUIDELINES ARE INTENDED FOR THE DISPOSAL OF CATALOG-SIZE QUANTITIES ONLY. DISPOSE OF IN AN INCINERATOR O R CONTRACT WITH A LICENSED WASTE DISPOSAL SERVICE.

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

Transport Information:BUTANOLS, 3, UN 1120, PG III

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

SARA Title III Information:NOT PROVIDED.
Federal Regulatory Information:NOT PROVIDED.
State Regulatory Information:NOT PROVIDED.

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

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.