Product ID:CARBON DIOXIDE, GAS MSDS Date:08/04/1989 FSC:4220 NIIN:00-324-1701 **MSDS Number: BLPFK** === Responsible Party === **Company Name: AERONAUTICAL COMPONENTS INC** Address:16 REITH ST City:COPIAGUE State:NY ZIP:11726-1410 Country:US Info Phone Num:516-842-3780 Emergency Phone Num:516-842-3780 CAGE:8U755 === Contractor Identification === Company Name: AERONA UTICAL COMPONENTS INC Address:16 REITH ST Box:City:COPIAGUE State:NY ZIP:11726-1410 Country:US Phone:516-842-3780 CAGE:8U755 Company Name: ATLANTIC RICHFIELD CO Address:515 S. FLOWER ST Box:2451 **City:LOS ANGELES** State:CA ZIP:90071-2201 Country:US Phone:213-486-2687 CAGE:56242

Ingred Name:CARBON DIOXIDE CAS:124-38-9 RTECS #:FF6400000 Fraction by Wt: 100% Other REC Limits:NONE SPECIFIED OSHA PEL:5000 PPM ACGIH TLV:5000PPM/30000S Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:(CONC.= 2 - 3%) SIMPLE ASPHYXIA.

(CONC.= 3 - 5%) INCREASED IRRITATION AND HEADACHE. (CONC.UP TO 15%) HEADACHE, NAUSEA, VOMITING AND UNCONSCIOUSNESS. HIGHER CONCENTRATIONS CAUSE CIRCULATORY INSUFFICIEN CY LEADING TO COMA AND

DEATH. CO2 IS THE MOST POWERFUL CEREBRA

L VASODILATOR KNOWN. SOLID CO2 CAN CAUSE FROSTBITE.

Explanation of Carcinogenicity:NONE OF THE CHEMICALS IN THIS PRODUCT IS LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.

Effects of Overexposure:RAPID BREATHING, IRRITATED NOSE AND THROAT, AND WATERY EYES CAUSED BY THE FORMATION OF CARBONIC ACID, A VERY WEAK ACID.

Medical Cond Aggravated by Exposure:PERSONNEL WITH PRE-EXISTING CHRONIC RESPIRATORY DISEASES OF HEART DISORDER SHOULD REFRAIN FROM BREATHING EXCESSIVE CARBON DIOXI

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First Aid:CONSCIOUS PERSONS OVER-EXPOSED TO CARBON DIOXIDE SHOULD BE ASSISTED TO AN AREA OF FRESH AIR. UNCONSCIOUS PERSONS SHOULD BE MOVED TO AN AREA OF FRESH AIR. GIVE APPROPRIATE BREATHING ASSISTANCE SUCH A S OXYGEN OR ARTIFICIAL RESPIRATION. SEEK MEDICAL ASSISTANTCE. FROSTBITE SHOULD BE TREATED AS A BURN WITH PROMPT MEDICAL TREATMENT SOUGHT.

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Flash Point:NONE

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL AS SUITABLE FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard: THE CONTENTS OF THIS PRODUCT ARE UNDER PRESSURE.

Spill Release

Procedures: CLEAN UP PERSONNEL SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS WITH FULL PROTECTIVE CLOTHING AND FULL FACE MASK.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

Handling and Storage Precautions: STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM SOURCES OF IGNITION. KEEP CONTAINER CLOSED WHEN NOT IN USE, PROTECT FROM PHYSICAL DAMAGE. Other Precautions: BULK DELIVERY TRAILERS AND TANK CARS SHALL COMPLY WITH APPLICABLE DOT AND CGA REGULATIONS AS TO CONSTRUCTION, OPERATION, AND LABELLING. STORE CYLINDERS UPRIGHT IN A COOL, DRY LOCATION AWAY FROM CORRO SIVE CHEMICALS WITH SAFETY CAP INSTALLED Respiratory Protection: IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL (TLV), USE NIOSH/MSHA APPROVED RESPIRATOR AS PER CURRENT 29 CFR 1910.134, INSTRUCTIONS/WARNINGS AND **NIOSH-RESPIRATOR SE** LECTION. Ventilation: MECHANICAL (GENERAL) VENTILATION IS USUALLY ADEQUATE. Protective Gloves: RUBBER GLOVES Eye Protection: SAFETY GLASSES/CHEMICAL SPLASH GOGGLES Other Protective Equipment: SAFETY SHOWER AND EYE BATH. INDUSTRIAL TYPE WORK CLOTHING AND APRON AS REQUIRED TO AVOID PROLONGED OR REPEATED CONTACT. Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. Supplemental Safety and Health CARBON DIOXED PORTA BLE ANALYZER MAY BE NEEDED. KEEP ALL EQUIPMENT IN GOOD WORKING ORDER. 

HCC:G3 Boiling Pt:B.P. Text:-109F, SUBL Vapor Pres:856 PSIG Vapor Density:1.65 Solubility in Water:VERY SOLUBLE Appearance and Odor:COLORLESS, SLIGHTLY ACID GAS AT ROOM TEMPERATURE AND PRESSURE.

Stability Indicator/Materials to Avoid:YES REACTIVE METALS, HYDRIDES, MOIST CESIUM OXI DE OR LITHIUM ACETYL.

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:CARBON MONOXIDE AND OXYGEN AT TEMPERATURES ABOVE 3000F.

Conditions to Avoid Polymerization:CARBON DIOXIDE CAN CAUSE VIOLENT POLYMERIZATION OF ACRYLALDEHYDE OR ETHYLENEIMINE.

Waste Disposal Methods: VENT SLOWLY TO ATMOSPHERE WITH ADEQUATE VENTILATION. (MANUFACTURERS INSTRUCTIONS

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