

SPARKLET DEVICES INC -- CARBON DIOXIDE -- 4220-01-077-8773

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Product Identification  
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Product ID:CARBON DIOXIDE

MSDS Date:04/01/1986

FSC:4220

NIIN:01-077-8773

MSDS Number: BPBPH

=== Responsible Party ===

Company Name:SPARKLET DEVICES INC

Address:4400 GUSTINE AVE

City:ST LOUIS

State:MO

ZIP:63116-1712

Country:US

Info Phone Num:314-353-0400

Emergency Phone Num:314-353-0400

Preparer's Name:J.

O. ALLROCCO

CAGE:87286

=== Contractor Identification ===

Company Name:SPARKLET DEVICES INC

Address:4400 GUSTINE AVE

Box:City:ST LOUIS

State:MO

ZIP:63116-1712

Country:US

Phone:314-353-0400

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Composition/Information on Ingredients  
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Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

Fraction by Wt: >99.5%

Other REC Limits:NONE SPECIFIED

OSHA PEL:5000 PPM

ACGIH TLV:5000PPM/30000STEL;93

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Hazards Identification  
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LD50 LC50 Mixture:LCLO INHALATION RAT IS 657,000 PPM

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

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

Health Hazards Acute and Chronic:CARBON DIOXIDE IS AN ASPHYXIANT. HIGH CONCENTRATIONS CAN PRODUCE PARALYSIS OF THE RESPIRATORY CONTROL CENTER OF THE NERVOUS SYSTEM. 2-3% WILL INCREASE RESPIRATION. >4% PRODUCES LABORED BREATHING AND IS DANGEROUS FOR EVEN A FEW MINUTES. >12% CAUSES RAPID UNCONSCIOUSNESS.

Explanation of

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

Effects of Overexposure:FAINT "ACIDIC" TASTE, HEADACHE, DIZZINESS, SHORTNESS OF BREATH, MUSCULAR WEAKNESS, DROWSINESS, AND RINGING OF THE EARS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHALATION: (CAUTION! WOULD-BE RESCURERS NEED TO BE CONCERNED WITH THEIR OWN SAFETY IN OXYGEN-DEFICIENT AREAS. USE SELF-CONTAINED BREATHING EQUIPMENT) REMOVE VICTIM TO FRESH AIR. QUICKLY RESTORE &/OR SUPPORT BREATHING AS REQUIRED, ADMINISTER OXYGEN IF AVAILABLE.

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

Extinguishing Media:NON-FLAMMABLE. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE SELF CONTAINED BREATHING APPARATUS AND WEAR FULLY PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:THIS MATERIAL IS NON COMBUSTIBLE AND WILL NOT SUPPORT COMBUSTION. IT PRESENTS NO UNUSUAL EXPLOSION HAZARD UNLESS COMPRESSED GAS IS EXPOSED TO A FIRE, & RUPTURE.

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

Spill Release Procedures:NOTIFY SAFETY PERSONNEL OF MAJOR LEAKS OR SPILLS. EVACUATE AREA UNTIL VENTILATION CAN RESTORE A SAFE OXYGEN LEVEL. EMERGENCY PERSONNEL NEED SELF-CONTAINED BREATHIN

## G EQUIPMENT

& PROTECTIVE CLOTHING AGA INST CONTACT WITH SOLID MATERIAL (DRY ICE).

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM SOURCES OF HEAT. DO NOT STORE THEM IN ENCLOSED OR SUBSURFACE AREAS.

Other Precautions:DO NOT PUT DRY ICE IN A CLOSED CONTAINER WHERE EVOLVED GAS CANNOT ESCAPE. USE AN UNSEALED, INSULATED STORAGE CHEST OR CONTAINER FOR DRY ICE. OCCUPATIONAL EXPOSURE MAY OCCUR IN PLACES SUCH AS MINES, SI LOS, VATS OR SHIP'S HOLDS.

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

Respiratory Protection:PROVIDE AIR-SUPPLIED OR SELF-CONTAINED BREATHING EQUIPMENT FOR EMERGENCY OR NONROUTINE SITUATIONS WHERE THE LEVEL OF CARBON DIOXIDE IS EXCESSIVE.

Ventilation:PROVIDE ADEQUATE GENERAL AND LOCAL EXHAUST VENTILATION TO PREVENT WORKPLACE ATMOSPHERE FROM BECOMING OXYGEN DIFICIENT.

Protective Gloves:APPROVED INSULATED GLOVES

Eye Protection:SAFETY GLASSES

Other Protective Equipment:SELF-CONTAINED BREATHING APPARATUS. SAFETY SHOES. DO NOT WEAR CONTACT LENSES. PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT.

Work Hygienic Practices:KEEP SAFETY VALVES IN GOOD WORKING CONDITIONS

Supplemental Safety and Health

DOT CLASSIFICATION: NONFLAMMABLE GAS.

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

Boiling Pt:B.P. Text:109F,43C

Vapor Pres:1 ATM

Solubility in Water:20 C ML/100 ML

Appearance and Od

or:COLORLESS GAS; CLEAR, COLORLESS, VOLATILE LIQUID; OR WHITE SOLID, ODORLESS.

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

Stability Indicator/Materials to Avoid:YES

REACTIVE METALS (SUCH AS ALKALI METALS, MAGNESIUM, ALUMINUM, TITANIUM, ZIRCONIUM) AND THEIR HYDRIDES.

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES.

Hazardous Decomposition Products:CARBON DIOXIDE CAN DECOMPOSE TO CARBON MONOXIDE AND OXYGEN ABOVE 3092F.

Conditions to Avoid Polymerization:C

ARBON DIOXIDE CAN CAUSE VIOLENT  
POLYMERIZATION OF ACRYLAIDEHYDE OR ETHYLENIMINE.

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

Waste Disposal Methods: REMOVE THE SCRAP SOLID (SNOW OR DRY ICE), TAKE THE LEAKING CYLINDER OUTDOORS OR PLACE IT INTO A HOOD WITH GOOD FORCE VENTILATION. ALLOW GAS TO BE DISCHARGED AT A MODERATE RATE. DEFECTIVE CYLINDERS SHO ULD BE TAGGED & RETURNED TO THE SUPPLIER.

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