

SPARKLET DEVICES INC -- CARBON DIOXIDE -- 4220-00-274-5816

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Product Identification  
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Product ID:CARBON DIOXIDE

MSDS Date:04/01/1986

FSC:4220

NIIN:00-274-5816

MSDS Number: BKCDV

=== 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

CAGE:87286

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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:100,000 P

PM/1 MIN HUMAN INHALATION LCLO

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

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

Health Hazards Acute and Chronic:PRODUCT CAN CAUSE ASPHYXIATION BY DISPLACING OXYGEN. AT HIGH CONCENTRATIONS PARALYSIS OF THE RESPIRATORY CONTROL CENTER OF THE NERVOUS SYSTEM MAY OCCUR. UNCONSCIOUSNESS MAY OCCUR.

Explanation of Carcinogenicity:PRODUCT IS NOT CURRENTLY CLASSIFIED AS CARCINOGENIC BY NTP, IARC OR OSHA.

Effects of Overexposure:LOW

CONCENTRATIONS MAY INCLUDE HEADACHE, DIZZINESS, SHORTNESS OF BREATH, MUSCULAR WEAKNESS, DROWSINESS, RINGING IN EARS. HIGH CONCENTRATIONS MAY PRODUCE A FAINT ACIDIC TASTE AND PARALYSIS OF RESPIRATORY SYSTEM. CONTACT WITH LIQUID OR SOLID CARBON DIOXIDE MAY CAUSE FROSTBITE AND FREEZE BURNS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:IN CASE OF CONTACT WITH LIQUID OR SOLID, PROMPTLY FLUSH AREAS

WITH TEPID WATER. DO NOT APPLY DIRECT HEAT. LOOSELY APPLY DRY STERILE BULKY DRESSINGS TO PROTECT AREA FROM INFECTION. GET MEDICAL ATTENTION. IN CASE OF INHALATION, REMOVE TO FRESH AIR. QUICKLY RESTORE AND/OR SUPPORT BREATHING. GET MEDICAL ATTENTION. CAUTION! WOULD-BE RESCUERS NEED TO BE CONCERNED WITH THEIR OWN SAFETY DURING RESCUE.

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

Flash Point:NONE

Lower Limits:NOT FOUND

Upper Limits  
:NOT FOUND

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

Fire Fighting Procedures:WATER MAY BE USED TO INCREASE THE RATE OF EVAPORATION. CARBON DIOXIDE IS A FIRE EXTINGUISHING AGENT BUT MAY NOT BE EFFECTIVE ON CHEMICALS THAT SUPPLY OXYGEN.

Unusual Fire/Explosion Hazard:WHEN EXPOSED TO FIRE, CONTAINERS MAY RUPTURE VIOLENTLY. FIRE FIGHTERS SHOULD USE SELF-CONTAINED BREATHING APPARATUS AND WEAR FULL

## Y PROTECTIVE CLOTHING.

### ===== 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 BREATHING EQUIPMENT AND PROTECTIVE CLOTHING AGAINST CONTACT WITH SOLID MATERIAL.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and

Storage Precautions:HANDLING, STORAGE, AND UTILIZATION OF COMPRESSED-GAS CYLINDERS MUST BE IN ACCORDANCE WITH 29 CFR 1910.101(6). DO NOT STORE THEM IN ENCLOSED 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. STORE IN A COOL, DARK, WELL-VENTILATED AREA AWAY FROM SOURCES OF HEAT.

### ===== 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 ATMOSPHERES FROM BECOMING OXYGEN DEFICIENT.

Protective Gloves:INSULATED GLOVES

Eye Protection:SAFETY GLASSES

Other Protective Equipment:USE A SAFETY LINE AND STANDBY WORKER WHEN ENTERING CARBON-DIOXIDE ENRICHED AREA. SAFETY SHOES ARE

RECOMMENDED.

Work Hygienic Practices:CONTACT LENSES POSE A SPECIAL HAZARD; SOFT LENSES MAY ABSORB IRRITANTS AND ALL LENSES CONCENTRATE IRRITANTS.

Supplemental Safety and Health

OCCUPATIONAL EXPOSURES MAY OCCUR IN SUCH PLACES AS MINES, SILOS, VATS, SHIPS HOLDS, WHERE FERMENTATION PROCESSES MAY DEplete OXYGEN WITH CARBON DIOXIDE.

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

HCC:G3

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

Melt/Freeze Pt:M.P/F.P Text:NONE

Vapor Density:1.5

Spec Gravity:1.53

Solubility in Water:APPRECIABLE

Appearance and Odor:COLORLESS GAS, CLEAR, COLORLESS, VOLATILE LIQUID,  
ODORLESS, ACIDIC TASTE

Percent Volatiles by Volume:100 %

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

Stability Indicator/Materials to Avoid:YES

ACRYLALDEHYDE, ETHYLENIMINE, SODIUM PEROXIDE, ALUMINUM, MAGNESIUM,  
TITANIUM, ZIRCONIUM, DIETHYL MAGNESIUM, CESIUM OXIDE

Stability Condition to Avoid:EXTREME HEAT, PHYSICAL DAMAGE

Hazardous Decomposition

Products:CARBON MONOXIDE

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

Waste Disposal Methods:REMOVE SCRAP SOLID (DRY ICE), TAKE CYLINGER  
OUTDOORS OR PLACE IT IN A HOOD WITH GOOD FORCED VENTILATION. ALLOW  
GAS TO BE DISCHARGED AT A MODERATE RATE. CLOSE VALVE AND RETURN TO  
SUPPLIER.

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