

SPARKLET DEVICES INC -- CARBON DIOXIDE -- 4220-00-372-0585

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

Product ID:CARBON DIOXIDE

MSDS Date:07/01/1989

FSC:4220

NIIN:00-372-0585

MSDS Number: BKBXG

=== Responsible Party ===

Company Name:SPARKLET DEVICES INC

Address:4400 GUSTINE AVE

City:ST LOUIS

State:MO

ZIP:63116-1712

Country:US

CAGE:87286

=== Contractor Identification ===

Company Name:JEFFERSON METALS STAMP
ING CO.

Address:4400 GUSTINE AVE

Box:City:ST LOUIS

State:MO

ZIP:53116-1712

Country:US

CAGE:0ZGE6

Company Name:SPARKLET DEVICES INC

Address:4400 GUSTINE AVE

Box:City:ST LOUIS

State:MO

ZIP:63116-1712

Country:US

Phone:314-353-0400

CAGE:87286

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

Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:5000 PPM

ACGIH TLV:5000PPM/30000STEL;93

===== Haza

Product Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

Health Hazards Acute and Chronic:SIMPLE ASPHYXIAN.T.HIGH CONCENTRATIONS OF CARBON DIOXIDE IN THE AMBIENT AIR CAN REDUCE THE OXYGEN CONTENT NECESSARY TO SUPPORT LIFE.IN THE SOLID PHASE(DRY ICE) CONTACT W/BODY TISSUE WILL PRODUCE COLD BURNS OR FROSTBITE W/IN SEVERAL SECONDS.

Explanation of Carcinogenicity:THIS MATERIAL IS NOT LISTED AS A

CARCINOGEN BY NTP, IARC, OSHA.

Effects of Overexposure:SHORTNESS OF BREATH,HEADACHE,DIZZINESS, WEAKNESS,DROWSINESS & RINGING IN EARS.DRY ICE IN CONTACT W/BODY TISSUE PRODUCES BURNING SENSATION;& FROSTBITE OCCURS W/IN SEVERAL SECONDS.

Medical Condition Aggravated by Exposure:CONDITIONS WHICH CAUSE BREATHING DIFFICULTY.

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

First Aid:DO NOT ATTEMPT TO REMOVE AN INDIVIDUAL FROM THE SCENE W/OUT UTILIZING PRO

PER RESCUE EQUIPMENT OR YOU MAY BECOME A CASUALTY.

MOVE VICTIM TO FRESH AIR WHILE KEEPING THEM WARM, DRY & QUIET. IF BREATHING HAS STOPPED PERFORM ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

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

Extinguishing Media:MATERIAL IS AN EXTINGUISHING AGENT ITSELF.

Fire Fighting Procedures:NONE SPECIFIED BY MANUFACTURER.

Unusual Fire/Explosion Hazard:CONFINEMENT OF CARBON DIOXIDE IN VESSELS CONTAINERS OF IMP

ROPER DESIGN CAN RESULT IN EXPLOSION OR RUPTURE FROM OVER- PRESSURIZATION.

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

Spill Release Procedures:EVACUATE THE AREA OF THE SPILL OR RELEASE, EMPLOY EMERGENCY FIRST AID PROCEDURES,PROVIDE PLENTY OF FRESH AIR.REMOV DRY ICE RESIDUAL & ALLOW TO SUBLIME IN A SECURED, WELL-VENTILATED AREA & CONTACT THE MANUFACTURER'S SAFETY DEPARTMENT.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== H

Handling and Storage =====

Handling and Storage Precautions:LIQUID & VAPOR STORAGE CONTAINERS ARE UNDER HIGH PRESSURE.DO NOT MIS-HANDLE OR ABUSE,CNTS.USE ONLY EQUIPMENT DESIGNED FOR CARBON DIOXIDE.

Other Precautions:AVOID DIRECT SKIN CONTACT WITH DRY ICE OR VENTING CARBON DIOXIDE LIQ OR VAPOR.USE PROTECTIVE EQUIP & CLOTHING AND GET PROPER TRAINING BEFORE HANDLING CARBON DIOXIDE IN CYLINDERS.

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

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Respiratory Protection:SELF-CONTAINED BREATHING APPARATUS- USE IN STRICT ACCORDANCE W/THE MANUFACTURER'S RECOMMENDATIONS.

Ventilation:FRESH AIR LOCAL EXHAUST/MECHANICAL

Protective Gloves:HEAVY TERRY-CLOTH TYPE

Eye Protection:SAFETY GLASSES W/SIDE SHIELDS

Other Protective Equipment:SAFETY SHOES, HARD HATS & EAR PROTECTION SHOULD BE WORN WHEN WORKING W/PRESSURIZED CARBON DIOXIDE.

Work Hygienic Practices:PERSONS HANDLING CARBON DIOXIDE SHOULD BE FULLY TRAINED IN ADVANCE.

Supplemental Safety

and Health

USE A PROPER PRESSURE REDUCING REGULATOR WHEN CONNECTING CYLINDER TO LOWER PRESSURE < 1500 PSIG. NEVER HEAT CYLINDER TO INCREASE DISCHARGE RATE. KEEP CYLINDERS UPRIGHT AND PROPERLY SECURED IN SECURED AREAS AWAY FROM HIGH TRAFFIC. HAVE ONLY QUALIFIED PERSONNEL REFILL CYLINDERS.

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

HCC:G3

Boiling Pt:B.P. Text:-109F,-79C

Vapor Pres:1 ATM

Vapor Density:1.5 AIR=1

Solubility in Water:90ML/100ML H2O

Appearance

and Odor:IN SOLID TRANSLUCENT WHITE & ODORLESS.IN GAS & LIQ COLORLESS & ODORLESS.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

ACTIVE ALKALI METALS(SUCH AS SODIUM, POTASSIUM, MAGNESIUM, ALUMINUM, TITANIUM, ZIRCONIUM), ORGANOMETALLICS, HYDRIDES.

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:HEATING ABOVE 1700C CAUSES DECOMPOSITION

F CARBON MONOXIDE & OXYGEN.

Conditions to Avoid Polymerization:IT CAUSES VIOLENT POLYMERIZATION OF
ACRYLALDEHYDE OR ETHLENEIMINE.

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

Waste Disposal Methods:ALLOW CARBON DIOXIDE TO RELEASE, SUBLIME OR
DISSIPATE IN THE OPEN AIR.AVOID RELEASING IN COURTYARDS OR INDOORS
OR ANY AREAS WHERE HEAVY CARBON DIOXIDE VAPORS CAN ACCUMULATE.

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