



CARBON DIOXIDE SOLID

MSDS Number

BHDSZ

National Stock Number

6830-00-682-6841

Product Name

CARBON DIOXIDE SOLID

Manufacturer

HELLER'S CARBONIC WEST INC

Product Identification

Product ID: CARBON DIOXIDE SOLID

MSDS Date: 07/25/1986

FSC: 6830

NIIN: 00-682-6841

MSDS Number: BHDSZ

Responsible Party

HELLER'S CARBONIC WEST, INC.

1902 MARVEL STREET

WEBSTER, IA 50595

US

Emergency Phone: CHEMTREC 800-424-9300

Info Phone: 515-832-6270

Cage: LO803

Contractor

MOTOROLA INC GOVERNMENT ELECTRONICS DIVISION

HUNTSVILLE, AL 35801-5335

US

515-832-6270

Cage: 5D595

Ingredients

CARBON DIOXIDE

CAS: 124-38-9

RTECS: FF6400000

Fraction By Weight: 99.5%

OSHA PEL5000 PPM

ACGIH TLV: 5000PPM/30000STEL;93

Hazards

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

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

Health Hazards Acute and Chronic: AT 2-3% CONCENTRATION, SYMPTOMS OF SIMPLE ASPHYXIA OCCUR; 3-5% CAUSES INCREASED RESPIRATION & HEADACHE. HIGHER CONCENTRATIONS CIRCULATORY INSUFFICIENCY LEADING TO COMA & DEATH. CO₂ IS THE MOST POWERFUL CEREBRAL VASODILATOR KNOWN. SOLID CARBON DIOXIDE, WHEN TOUCHED, CAN CAUSE SEVERE FROSTBITE, SIMILAR TO A BURN.

Effects of Overexposure: RAPID BREATHING, IRRITATED NOSE & THROAT, &



WATERY EYES CAUSED BY THE FORMATION OF CARBONIC ACID, A VERY WEAK ACID.
Medical Cond Aggravated by Exposure:PRE-EXISTING CHRONIC RESPIRATORY DISEASES OR HEARTDISEASES SHOULD REFRAIN FROM BREATHING EXCESSIVE CARBON DIOXIDE.

First Aid

First Aid:CONSCIOUS/UNCONSCIOUS ASSIST TO FRESH AIR.IF NECESSARY GIVE ASSISTED RESUSCITATION & ADMINISTERED OXYGEN.FROSTBITE SHOULD BE TREATED AS A BURN W/PROMPT MEDICAL ATTENTION.RESCUE PERSONNEL SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS W/FULLFACE MASK & HEAVY PROTECTIVE CLOTHING TO PREVENT FROSTBITE.

Fire Fighting

Flash Point:NA
Lower Limits:NON
Upper Limits:NON
Extinguishing Media:NON-FLAMMABLE,INERT GAS.USED AS AN EXTINGUISHING AGENT FOR SMOTHERING CLASS B & C FIRES.
Fire Fighting Procedures:NA
Unusual Fire/Explosion Hazard:DO NOT PLACE SOLID CO2 IN SEALED CNTS,EXCEPT FOR CNTS SPECIFICALLY DESIGNED FOR THAT PURPOSE(IE,DRY ICE CONVERTORS).CONTAINERS CAN RUPTURE & EXPLODE.

Accidental Release

Spill Release Procedures:THE AREA SHOULD BE VENTILATED.SPECIAL PRECAUTION SHOULD BE USED IN LOW AREAS NEAR SPILL WHERE HEAVIER THAN AIR CO2 MAY ACCUMULATE.CLEAN UP PERSONNEL SHOULD WEAR SCBA W/FULL FACE MASK & HEAVY PROTECTIVE CLOTHING TO PREVENT FROSTBITE.

Handling

Handling and Storage Precautions:STORE DRY ICE & DRY ICE CNTS IN COOL,WELL VENT AREA.DO NOT STORE IN CLOSED,CONFINED AREA.WHEN HANDLING DRY ICE USE HVY GLOVES,CLOTHING & FACE SHIELD.
Other Precautions:WHEN TRANSPORTING IN A VEHICLE,PROVIDE PLENTY OF VENTILATION FOR PERSONNEL IN THE VEHICLE.WHEN TRANSPORTING BY AIRPLANE,LABEL CNT & ADVISE PERSONNEL THAT DRY ICE IS BEING SHIPPED & QTY.DO NOT PUT HEAD OR BODY IN DRY ICE CONTAINERS.

Exposure Controls

Respiratory Protection:SELF-CONTAINED BREATHING APPARATUS W/FULL FACE MASK WHEN CONCENTRATIONS ARE ABOVE TLV.
Ventilation:YES LOCAL EXHAUST.
Protective Gloves:YES
Eye Protection:SAFETY GLASSES OR FULL FACE SHIELD
Other Protective Equipment:CARBON DIOXIDE PORTABLE ANALYZER.
Work Hygienic Practices:DO NOT USE DRY ICE CONTAINERS FOR ANY USE OTHER THAN TO STORE DRY ICE.KEEP DRY ICE CONTAINERS CLEAN.
Supplemental Safety and Health
NK

Chemical Properties

HCC:G3
Boiling Pt:B.P. Text:NA
Melt/Freeze Pt:M.P/F.P Text:-69.88F
Vapor Pres:68F831PSIG
Vapor Density:@68F 1.53
Spec Gravity:@2F 1.014
Evaporation Rate & Reference:NA
Solubility in Water:@68F 87.8% BY VOL
Appearance and Odor:COLORLESS, SLIGHT PUNGENT ODOR. MELT PT
CONT:@75.13 PSIA

Stability

Stability Indicator/Materials to Avoid:YES
CARBON DIOXIDE WILL REACT W/ALKALINE MATERIALS TO FORM CARBONATES & BICARBONITES.EXPLOSION CAN OCCUR W/REACTIVE METALS.



Stability Condition to Avoid: CARBON DIOXIDE IS STABLE UNDER NORMAL CONDITIONS OF USE & STORAGE.

Hazardous Decomposition Products: CARBON DIOXIDE CAN DECOMPOSE TO CARBON MONOXIDE & OXYGEN ABOVE 3000F.

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

Disposal

Waste Disposal Methods: PLACE IN WASTE CONTAINER W/OPEN OR LOOSELY CLOSED TOP. PLACE CONTAINER IN WELL VENTILATED AREA THAT IS NOT ACCESSABLE TO UNAUTHORIZED PERSONNEL. ALLOW DRY ICE TO SUBLIME NATURALLY TO CO₂ VAPOR. DO NOT USE HEAT OR WATER TO INCREASE SUBLIMATION.

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