

CARBON DIOXIDE, REFRIDGERATED LIQUID

MSDS Number

BKCDD

National Stock Number

4210-00-203-0341

Product Name

CARBON DIOXIDE, REFRIDGERATED LIQUID

Manufacturer

ADM CORN SWEETENERS

Product Identification

Product ID: CARBON DIOXIDE, REFRIDGERATED LIQUID

MSDS Date: 01/01/1991

FSC: 4210

NIIN: 00-203-0341

MSDS Number: BKCDD

Responsible Party

ADM CORN SWEETENERS

7627 W. LAKE STREET

RIVER FOREST, IL 60305

US

Emergency Phone: 312-771-2990

Info Phone: 312-771-2990

Cage: 84168

Contractor

GENERAL FIRE EXTINGUISHER CORP

NORTHBROOK, IL 60062-5315

US

(708) 847-272-7500; 847-272-7500

Cage: 99539

Ingredients

CARBON DIOXIDE

CAS: 124-38-9

RTECS: FF6400000

Fraction By Weight: > 99.9%

OSHA PEL 5000 PPM

ACGIH TLV: 5000PPM/30000STEL;93

Hazards

LD50 LC50 Mixture: 100,000 PPM/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 Condition Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

First Aid

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.

Fire Fighting

Flash Point:NONE

Lower Limits:NONFLAMMABLE

Upper Limits:NONFLAMMABLE

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 FULLY PROTECTIVE CLOTHING.

Accidental Release

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

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 THEN 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

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.

Chemical Properties

HCC:G3

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

Melt/Freeze Pt:M.P/F.P Text:0F,-18C

Vapor Pres:291.1 PSIG
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

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

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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