SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Product name: CARBON DIOXIDE ABSORBER-SACHET
Usage: Fresh keeping agent for fresh cut fruits and vegetables products

Detail of the MSDS manufacturer: Petro Mehr Amiran Nick Afarin, Ltd.
Company address company: The Fars Health Technology Park, Sadra city, Shiraz, Iran
Telephone No.: (+98)7136364729 / (+98)9966120970
Email: info@petromehrtech.com **Web:** www.petromehrtech.com
Emergency phone number: (+98)7136364729

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

Chemical name	Calcium hydroxide
Synonym	Biocalc, Calcium Hydrate, Calcium Dehydrate, Carboxide, Calcium Dihydroxide, Caustic Lime, Slakes Lime, Kalkhydrate, Lime Water, Lime milk
Shipping name	CORROSIVE SOLID, BASIC, INORGANIC,N.O.S (Calcium hydroxide)
molecular weight (Active Ingredient)	74.09 g/mol
CAS No. (Active Ingredient)	1305-62-0
UN No. (Active Ingredient)	UN3262
Packing Group	III
Hazard Class	8

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

Health hazards (potential Health Effects and in Case of Contact):

Eyes	Causes eye burns. May result in control injury. May cause permanent visual impairment.	
Skin	May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through skin.	
Ingestion	May cause irritation of the digestive tract. Cause severe pain, nausea, vomiting, diarrhea, and shock. May be harmful if swallowed.	-
Inhalation	Causes respiratory tract irritation. May cause chemical bronchitis with coughing and difficulty in breathing.	-
Chronic	Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion	-

SECTION 4 - FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.
Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion: if swallowed**,** Do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
Notes to Physician: Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

General Information: as any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is nonflammable.
Extinguishing media: All extinguishing media are appropriate for the surrounding fire.
Special fire-fighting procedures: Active ingredient is not flammable. Final product may become Flammable in the presence of fire. Packaging is combustible. Does not ignite by itself, but can decompose in the presence of heat. In case of fire, avoid spreading powder material. Control runoff if water is used; build dam to contain water contaminated with product.
Personal protection equipment for firefighting: Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breath dust.

SECTION 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill: Oxidizing material. Corrosive solid. Stop leak if without risk. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material.
Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

SECTION 7 - HANDLING AND STORAGE

Handling: wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.
Storage conditions: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substance.

SECTION 8 - Exposure Controls/Personal Protection Engineering Controls

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended
exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit
Personal Protection: Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent Gloves.
Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits: TWA: 5 Consult local authorities for acceptable exposure limits.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and Chemical Properties:

Physical State:	Solid
Color:	white-beige
Odor:	Odorless.
Taste:	Sweetish, Astringent.
Flash Point:	Not Applicable Self-Ignition
Explosive Properties:	Product Is Non-Explosive Fire or Explosion
Ph. (1% Soln/Water):	12.6
Melting Point:	580 deg C
Critical Temperature:	Not Available.
Vapor Pressure:	0 mm Hg
Vapor Density:	Not Available.
Volatility:	Not Available.
Odor Threshold:	Not Available.
Water/Oil Dist. Coeff:	Not Available.
Auto-ignition:	≥400
Solubility:	slightly soluble

SECTION 10 - STABILITY AND REACTIVITY

Stability: the material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to be avoided: keep away from heat. Decomposition takes place from temperatures above: ≥550 C.
Incompatibilities (materials to be avoided): There is no additional information

SECTION 11 - Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 1090 mg/kg [Rat]. Lowest Published Lethal Dose: LDL[Woman] - Route: Oral; Dose: 100 mg/kg LDL[Human] - Route: Oral; Dose: 143 mg/kg.
Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, liver, skin, central nervous system (CNS).
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of eye contact (corrosive), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects (Male and Female fertility) based on animal data. May affect genetic material (mutagenetic) based on animal data.

SECTION 12 - Ecological Information

Ecotoxicity: Not available. Mosquito fish, TLm=240 ppm/48H, 160 ppm/96H at 21-23C.
Environmental: No information available
Physical: No information available

SECTION 13 - Disposal Considerations

Chemical waste generation must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR parts 261.3. Additionally, waste generations must consult state.
RCRA P-Series: none listed
RCRA U-Series: none listed

SECTION 14- Transport Information

DOT Classification: CLASS 5.1: Oxidizing material.
Identification: Potassium permanganate UNNA: 1490 PG: II
Special Provisions for Transport: Not available

SECTION 15- Other Regulatory Information

Federal and State Regulations: Connecticut carcinogen reporting list.: Potassium permanganate Illinois toxic substances disclosure to employee act: Potassium permanganate Illinois chemical safety act: Potassium permanganate New York release reporting list: Potassium

permanganate Rhode Island RTK hazardous substances: Potassium permanganate Pennsylvania RTK: Potassium permanganate Massachusetts RTK: Potassium permanganate Massachusetts spill list: Potassium permanganate New Jersey: Potassium permanganate New Jersey spill list: Potassium permanganate Louisiana spill reporting: Potassium permanganate California Director's list of Hazardous Substances: Potassium permanganate
Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
Other Classifications:
WHMIS (Canada): CLASS C: Oxidizing material. CLASS E: Corrosive solid.
DSCL (EEC): R8- Contact with combustible material may cause fire. R22- Harmful if swallowed. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.
HMIS (U.S.A.):

National Fire Protection Association (U.S.A.):
Health: 1
Flammability: 0
Reactivity: 0
Protective Equipment: Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles

SECTION 16- Other Regulatory Information

References: Not available.
Other Special Considerations: Not available.
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