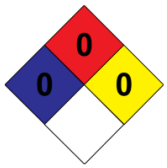
SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Product name: ETYLENE ABSORBER-SACHET
Usage: Keep Fruit, vegetables and flower longer
Detail of the SDS manufacturer: Petro Mehr Amiran Nick Afarin, Ltd.
Company address company: The Fars Health Technology Park, Sadra city, Shiraz, Iran
Telephone No.: (+98)7136364729
Email: info@petromehrtech.com **Web:** www.petromehrtech.com
Emergency phone number: (+98)7136364729

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

Classification of the substance or mixture:
NFPA:
Health Hazards: 0
Flammability Hazards: 0
Instability Hazards: 0



Special Hazards: Non-applicable
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Label elements:
NFPA:
29 CFR 1910.1200:
None
Hazards not otherwise classified (HNOC):
Non-applicable

Environmental hazard: Not applicable as final product.

SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

Chemical name	Molecular sieve based, Zeolite powder based
Synonym	Ethylene eater, Ethylene Adsorbent, Ethylene Eliminator, $KMnO_4$ Zeolite
molecular weight (Active Ingredient)	159 g/mol
CAS No. (Active Ingredient)	7722-64-7
UN No. (Active Ingredient)	1490

SECTION 4 - FIRST AID MEASURES

Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.
By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.
By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.
By eye contact:
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.
By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.
Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5 - FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:
Suitable extinguishing media:
Product is non-flammable under normal conditions of storage, handling and use. Use preferably water.
Unsuitable extinguishing media:
Chemical extinguishers or foam.
Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition.

SECTION 6 - HANDLING AND STORAGE

A-Precautions for safe manipulation

Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods. Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B-Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C-Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D-Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product.

Avoid sources of heat, radiation, static electricity and contact with food.

Minimum Temp.: 41 ºF

Maximum Temp.: 104 ºF

SECTION 7 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Measures to reduce exposure possibilities:	Avoid exposure to moisture
Airborne exposure limits:	No
Hygiene measures:	Wash hands before eating or drinking
Respiratory protection:	Not necessary
Hands protection:	Not required

SECTION 8 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:
For complete information see the product datasheet. *Not relevant due to the nature of the product, not providing information property of its hazards.

Physical state at 68 ºF:	Solid
Color:	Violet
Odor:	Characteristic
Odour threshold:	Non-applicable
Volatility: Boiling point at atmospheric pressure:	Non-applicable
Vapor pressure at 68 ºF:	Non-applicable
Vapour pressure at 122 ºF:	Non-applicable
Evaporation rate at 68 ºF:	Non-applicable
Density at 68 ºF:	Non-applicable
Relative density at 68 ºF:	Non-applicable
Dynamic viscosity at 68 ºF:	Non-applicable
Kinematic viscosity at 68 ºF:	Non-applicable
Kinematic viscosity at 104 ºF:	Non-applicable

Concentration:	Non-applicable
pH:	Non-applicable
Vapour density at 68 ºF:	Non-applicable
Partition coefficient n-octane/water 68 ºF:	Non-applicable
Solubility in water at 68 ºF:	
Solubility properties: Soluble with difficulty	
Decomposition temperature: 243 - 325 ºF Melting	
point/freezing point: ~2372 ºF	
Explosive properties: Non-applicable *	
Oxidizing properties:	Non-applicable
Flammability:	
Flash Point:	Non-applicable
Heat of combustion:	Non-applicable
Flammability (solid, gas):	Non-applicable
Autoignition temperature:	Non-applicable
Lower flammability limit:	>1300 %

SECTION 9 - STABILITY AND REACTIVITY

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Incompatible
materials Incompatibility with various substances: Highly reactive with organic materials, metals, acids. Reactive with reducing agents, combustible materials.
Corrosivity: Not available.
Special Remarks on Reactivity: It is a powerful oxidizing agent. Incompatible with reducing agents, acids, formaldehyde, ammonium nitrate, dimethylformamide, glycerol, combustible materials, alcohols, arsenites, bromides, iodides, charcoal, organic substances, ferrous or mercurous salts, hypophosphites, hyposulfites, sulfites, peroxides, oxalates, ethylene glycol, Manganese salts in air oxidize the toxic sulfur dioxide to more toxic sulfur trioxide. Can react violently with most metal powders, ammonia, ammonium salts, phosphorous, many finely divided organic compounds (materials), flammable liquids, acids, sulfur. Special Remarks on
Corrosivity: Not available.
Polymerization: Will not occur.

SECTION 10 - 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 11 - Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available. Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.

SECTION 12 - Disposal Considerations

Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as nondangerous residue. We do not recommended disposal down the drain

SECTION 13- Transport Information

This product is not regulated for transport.

SECTION 14- Other Regulatory Information

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Potassium permanganate California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable The Toxic Substances Control Act (TSCA) : Water ; Potassium permanganate ; Sepiolite ; Dolomite ; Bentonite Massachusetts RTK - Substance List: Potassium permanganate New Jersey Worker and Community Right-to-Know Act: Potassium permanganate New York RTK - Substance list: Potassium permanganate Pennsylvania Worker and Community Right-to-Know Law: Potassium permanganate CANADA-Domestic Substances List (DSL): Water ; Potassium permanganate ; Bentonite CANADA-Non-Domestic Substances List (NDSL): Sepiolite ; Dolomite NTP (National Toxicology Program): Non-applicable Minnesota - Hazardous substances ERTK: Potassium permanganate Rhode Island - Hazardous substances RTK: Potassium permanganate OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable Hazardous Air Pollutants (Clean Air Act): Potassium permanganate Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Potassium permanganate (100 pounds)
Specific provisions in terms of protecting people or the environment: It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product. Other legislation: Take into consideration other applicable federal, state, and local laws and local regulations**.**

SECTION 15- Other Information

Advice related to training: Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
Principal bibliographical sources: Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
Other information: In the case that the product of brownish stains on surfaces cleaned with a solution of 6 parts by weight water, 1 part of hydrogen peroxide (33% vol) and 2 parts vinegar (for food use).
Created: 1/14/2023
Last Updated:1/14/2024
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Petro Mehr Amiran Nick Afarin be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Petro Mehr Amiran Nick Afarin has been advised of the possibility of such damages.