



Mitsubishi Gas Chemical America, Inc

Product: AnaeroPack System

Safety Data Sheet

Date: December 17, 2013

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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SDS REVISION #: 008

AnaeroPack System consists of an anaerobic jar, plastic pouch and foil pouches, which contain the oxygen-absorber sachet. The precautions detailed in this SDS apply ONLY to the contents of the oxygen-absorber sachet AFTER REMOVAL from the foil pouch. Do not open the pouch until ready to use. Do **not** tear or damage the sachet.

PRODUCT NAME: AnaeroPack System

OTHER IDENTIFIERS: Pack Anaero, Pouch Anaero, Pack MicroAero, Pouch MicroAero, Pack CO₂, Pouch CO₂

RECOMMENDED USE: Absorb oxygen in packaged materials

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DISTRIBUTED BY: Mitsubishi Gas Chemical America, Inc.
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Inquiries - 81-3-3283-4875 (Japan)
MEDICAL EMERGENCIES - (866) 269-7972 (Anytime)
CHEMTREC - (transportation emergencies)
(800) 424-9300 (US); (703) 527-3887 (international)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:
No GHS hazards

PICTOGRAM:
None required

SIGNAL WORD:
None required

HAZARD STATEMENTS:
None required

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SECTION 2 - HAZARDS IDENTIFICATION (continued)

PRECAUTIONARY STATEMENTS:

None required

HAZARDS NOT OTHERWISE CLASSIFIED: None

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

AnaeroPack System consists of a pouch and sachet, the contents of which are listed below:

<u>Component</u>	<u>%</u>	<u>CAS No.</u>
Activated carbon (coated) and other particulates (PNOR or PNOC)	--- ---	7440-44-0 Proprietary
Sodium ascorbate	---	134-03-2
Water	---	7732-18-5

SECTION 4 - FIRST AID MEASURES

The pouch and sachet provide effective protection from the adverse health effects of the contents. If, however, the sachet is torn or damaged and persons are exposed to the contents, the following first aid procedures apply:

EYE CONTACT:

If any contents of the sachet come into contact with the eyes, immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get medical attention. Do **not** use chemical antidote.

SKIN CONTACT:

Wash the exposed area with soap and water. Remove contaminated clothing and launder before re-use.

INGESTION (swallowing):

Give two large glasses of water. Contact the Rocky Mountain Poison and Drug Center at (866) 269-7972 or a physician.

INHALATION (breathing):

If affected, move to fresh air.



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SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

When approximately one (1) pound (0.45 kg) or more of this product (See Section 16), whether contained in the sachets or not, is exposed to oxygen AND temperatures of 140° F (60° C) or more, it may spontaneously generate sufficient heat to ignite surrounding materials. Combustion products may include smoke, fumes, carbon dioxide and carbon monoxide.



This material does not meet the definition of a self-heating substance under current OSHA/GHS definitions.

EXTINGUISHING MEDIA:

Use large quantities of water, regular foam, dry chemical or carbon dioxide as appropriate for other materials involved in the fire.

PROTECTION OF FIREFIGHTERS:

Wear full protective clothing and self-contained breathing apparatus with full face-piece. Keep personnel removed from and upwind of fire. Combustion products may include smoke, fumes, carbon dioxide and carbon monoxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES:

Persons not wearing protective equipment should be excluded from the area of the spill until cleanup has been completed. Keep away from combustible materials. When approximately one (1) pound (0.45 kg) or more of this product (See Section 16), whether contained in the sachets or not, is exposed to oxygen AND temperatures of 140° F (60° C) or more, it may spontaneously generate sufficient heat to ignite surrounding materials.

CONTAINMENT & CLEAN-UP:

If the foil pouches have been damaged, shovel the spilled material into a plastic bag. **Never** put more than one (1) pound (0.45 kg) of material (See Section 16) into a single plastic bag. Thoroughly sweep up residual material. Avoid generating dust during clean-up operation. Heat-seal the plastic bags.



SECTION 7 - HANDLING AND STORAGE

HANDLING:

Do not open the foil pouch until ready to use. Do not damage the sachet.

STORAGE:

Do not remove from shipping containers until ready for use. Do not store at temperatures exceeding 100° F (38° C). Store in a cool, dry place away from direct sunlight. Do not store near combustible materials.

Used sachets, being held for disposal, should be placed in hermetically sealed plastic bags, and stored at temperatures not exceeding 100° F (38° C).

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Do **not** open the pouch until ready for use. Do not cut or damage the inner sachet. The following apply to materials contained in the sachet.

EXPOSURE GUIDELINES:

Activated carbon (coated)
and other particulates
(PNOR or PNOC)

OSHA PEL

15 mg/M³ (total dust)
5 mg/M³ (respirable dust)

ACGIH TLV

2 mg/M³ (graphite - respirable)
3 mg/M³ (respirable)
10 mg/M³ (inhalable)

ENGINEERING CONTROLS:

To avoid contact with contents, **never** open the AnaeroPack System inner sachet

EYE / FACE PROTECTION:

Wear safety glasses or splash goggles when handling any chemical substance

SKIN PROTECTION:

Wear protective gloves

RESPIRATORY PROTECTION:

Not required under normal conditions of use



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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Sachet containing black or gray granules @ 77° F (25° C)

Odor: Almost no odor

Odor Threshold: Unavailable

pH: 8.5-10.5 (5% in distilled water)

Freeze Point: Not applicable

Initial Boiling Point: Unavailable

Flash Point: Not applicable

Evaporation Rate: Nil
(Ethyl Ether = 1)

Flammability: Unavailable

Upper Explosion Limit: Unavailable

Lower Explosion Limit: Unavailable

Vapor Pressure: Unavailable

Vapor Density (air = 1): Unavailable

Relative Density: 0.3-0.7 @ 77° F (25° C)
(water = 1)

Solubility in Water: >50%

Partition Coefficient: Unavailable
(n-Octanol/water)

Bulk Density: 0.3-0.7 @ 77° F (25° C)

Autoignition Temperature: > 482° F (250° C)

Decomposition Temperature: Unavailable

Viscosity: Unavailable

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY:

This material has been evaluated and does not meet the definition of a self-heating substance; however, it reacts with oxygen and moisture to generate heat. Approximately one (1) pound (0.45 kg) or more of material (See Section 16), when removed from the protective foil pouch AND exposed to temperatures of 140° F (60° C) or more, may generate sufficient heat to ignite nearby combustible materials.

CHEMICAL STABILITY:

Stable under normal conditions of 70° F (21° C) and 14.7 psig (760 mm Hg). The AnaeroPack System oxygen absorbers are shipped in hermetically sealed foil pouches. As long as the foil pouch is unopened, there will be no reaction. As soon as the foil pouch is opened, it will begin absorbing oxygen and generating carbon dioxide.

POSSIBILITY OF HAZARDOUS REACTIONS:

Unavailable

CONDITIONS TO AVOID:

Avoid exposure to heat or air (oxygen)

INCOMPATIBLE MATERIALS:

Avoid contact with hydrogen peroxide

HAZARDOUS DECOMPOSITION PRODUCTS:

Releases carbon dioxide



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SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE:

None - the sachet provides effective protection from the adverse health effects of the contents.

SYMPTOMS (of exposure to the contents of the sachet):

Skin contact: None

Eye contact: Irritation, redness

Inhalation: None

EFFECTS FROM EXPOSURE (to the contents of the sachet):

Immediate: Can cause eye irritation, which may be severe.

Delayed: Prolonged or repeated contact may cause mild skin irritation

Chronic: Inhalation of particles may cause respiratory irritation

TOXICITY DATA:

Acute Oral LD₅₀ – greater than 5000 mg/kg

CARCINOGENICITY

The components in the sachet have not been reported to have any carcinogenic effects. This product (or components) is not listed in IARC Monographs, the current NTP Report on Carcinogens or the current ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY:

No data available

PERSISTENCE AND BIODEGRADABILITY:

No data available

BIOACCUMULATIVE POTENTIAL:

No data available

MOBILITY IN SOIL:

No data available

OTHER ADVERSE EFFECTS:

No data available



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SECTION 13 - DISPOSAL CONSIDERATIONS

Place waste AnaeroPack System oxygen-absorbing sachets into plastic bags. **Never** put more than one (1) pound (0.45 kg) (See Section 16) into a single plastic bag. Heat-seal the bags to provide a hermetic seal, and store in a cool place away from other wastes and combustible materials.

Do **not** accumulate a large number of AnaeroPack System oxygen-absorbing sachets in one place. Large quantities of used sachets, when exposed to oxygen AND temperatures of 140° F (60° C) or more, may generate sufficient heat to ignite nearby combustible materials. Store waste AnaeroPack System oxygen-absorbing sachets in a manner that provides for adequate heat dissipation (e.g. do **not** build large piles).

Incineration is the recommended disposal method for this and all chemical wastes; however, this material may be deposited in a landfill in accordance with all applicable Federal, state and local regulations. AnaeroPack is not considered a hazardous waste under current RCRA regulations.

SECTION 14 - TRANSPORT INFORMATION

Not regulated under current DOT (U.S.), TDG (Canadian), ICAO (air) or IMO (water) transport regulations.

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with the TSCA Inventory requirements.

CEPA:

All components in this product are listed on the Canadian Domestic Substances List (DSL) or exempt from listing.

WHMIS:

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

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SECTION 15 - REGULATORY INFORMATION (continued)

SARA:

- CERCLA/SARA 302:** Not applicable.
- CERCLA/SARA 311/312:** Not applicable
- CERCLA/SARA 313:** Not applicable

CALIFORNIA PROPOSITION 65:

This product does not contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 - OTHER INFORMATION

DETERMINATION OF ONE (1) POUND (0.45 kg):

When approximately one (1) pound (0.45 kg) or more of this product (See below), whether contained in the sachets or not, is exposed to oxygen AND temperatures of 140° F (60° C) or more, it may spontaneously generate sufficient heat to ignite surrounding materials.

<u>Product</u>	<u>Pouches/pound (0.45 kg)</u>
Pack Anaero	18
Pack MicroAero	35
Pack CO ₂	97
Pouch Anaero	69
Pouch MicroAero	613
Pouch CO ₂	1008

PREPARATION DATE: December 17, 2013
 SUPERCEDES: Revision 7, dated August 31, 2010
 REASON FOR REVISION: Updated to GHS
 RESPONSIBLE PERSON: Mr. Kenji Yoshizaki - 212-687-9030

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****END OF REPORT****