WATER-JEL TECHNOLOGIES

MATERIAL SAFETY DATA SHEET

Neomycin Antibiotic Ointment	MSDS No.:	013
	Revision No.:	4
	Effective Date:	12/27/2010

PRODUCT AND COMPANY INFORMATION – SECTION 1	
Manufacturer/Distributor	Water-Jel Technologies
	50 Broad Street
	Carlstadt, NJ 07072
	201-507-8300
	800-275-3433
Product Name:	**Neomycin Antibiotic Ointment**
Synonyms:	Antibiotic Ointment, Antibiotic Cream, Neomycin Cream
Intended Use:	First Aid antibiotic ointment to help prevent infection in minor cuts, scrapes and burns. For external use only.

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:
In the continental U.S.: 800-275-3433 **For additional information:** 201-507-8300

COMPOSITION INFORMATION – SECTION 2	
In accordance with 29 CFR § 1910.1200 (i) (1) the specific chemical identity of this product is being withheld as a trade secret.	
Chemical Name:	Petrolatum USP
Percent:	Proprietary
CAS Number:	8009-03-8
Exposure Limits:	Not Established
Chemical Name:	Neomycin Sulfate USP
Percent:	Proprietary
CAS Number:	1405-10-3
Exposure Limits:	Not Established

HAZARDS IDENTIFICATION – SECTION 3	
EMERGENCY OVERVIEW & HAZARDS PRESENT TO MAN AND THE ENVIRONMENT	Warning! May cause eye and skin irritation.
PRIMARY ROUTES OF EXPOSURE	Skin
POTENTIAL HEALTH EFFECTS:	
Eyes:	This product is minimally irritating to the eyes upon direct contact.

Skin:	This product is minimally irritating to the skin upon direct contact. **NOTE:** Neomycin sulfate may cause cutaneous sensitization. A precise incidence of hypersensitivity reactions (primarily skin rash) due to topical neomycin is not known. Discontinue promptly if sensitization or irritation occurs.
Inhalation:	This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product.
Ingestion:	Do not ingest. This product is practically non-toxic by ingestion. This product has laxative properties and may result in abdominal cramps and diarrhea.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	No information available.
CHRONIC HEALTH EFFECTS:	
Eyes:	No information available.
Skin:	When using neomycin-containing products to control secondary infection in the chronic dermatoses, such as chronic otitis extema or stasis dermatitis, it should be borne in mind that the skin in these conditions is more liable than is normal skin to become sensitized to many substances, including neomycin.
Inhalation:	Exposure to a large single dose or repeated smaller doses of petrolatum by inhalation can lead to lipid pneumonia or lipid granuloma of the lung. These are low-grade, chronic, localized tissue reactions. Shortness of breath and cough are the most common symptoms.
Ingestion:	Exposure to a large single dose or repeated smaller doses of petrolatum by ingestion leading to aspiration can lead to lipid pneumonia or lipid granuloma of the lung. These are low-grade, chronic, localized tissue reactions. Shortness of breath and cough are the most common symptoms.

FIRST AID MEASURES – SECTION 4	
SEEK MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE.	
FIRST AID MEASURES:	
Eyes:	Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If material is hot, treat for thermal burns and take victim to hospital immediately.

Skin:	Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If material is hot, submerge injured area in cold water. If victim is severely burned, remove to a hospital immediately.
Inhalation:	This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If vapor or mist is generated when the material is heated or handled, remove victim from exposure.
Ingestion:	Do not induce vomiting due to aspiration hazard. If vomiting should occur, lower head below knees to avoid aspiration.
Instructions for Physician:	Exposure to a large single dose or repeated smaller doses of petrolatum by inhalation, aspiration, or ingestion leading to aspiration, can lead to lipid pneumonia or lipid granuloma of the lung. These are low-grade, chronic, localized tissue reactions. Shortness of breath and cough are the most common symptoms.

FIRE FIGHTINHG MEASURES – SECTION 5

NFPA Classification

Health	Fire	Reactivity	Other
0	1	0	N/A

FLAMMABILITY PROPERTIES

Flash Point:	Higher than 93.3°C (200°F)	**Method:**	Closed Cup		
Flammability Limits: (in air % by volume)		**LEL:**	N/A	**UEL:**	N/A

Autoignition Temperature:

No information available.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide.

Extinguishing Media:

Use dry chemical, foam, or carbon dioxide.

Prohibited Extinguishing Media:

No information available.

Firefighting Instructions:

Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Unusual Fire and Explosion Hazards:

Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

ACCIDENTAL RELEASE MEASURES – SECTION 6

Environmental Precautions:

Contain spill immediately. Do not allow spill to enter sewers or watercourses.

Cleanup Methods:

Small spills: Absorb with appropriate inert material such as sand, clay, etc. and dispose of into a suitable container.

Large spills: Large spills maybe picked up using vacuum pumps, shovels, buckets, or other means and placed in drums or other suitable containers.

HANDLING & STORAGE – SECTION 7

Handling:	Avoid breathing vapors or mist. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Wash clothing prior to reuse. May be slippery when spilled.
Storage:	Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing materials.
Specific Uses:	First aid antibiotic ointment to help prevent infection in minor cuts, scrapes and burns. For external use only.

EXPOSURE CONTROLS / PERSONAL PROTECTION – SECTION 8

EXPOSURE CONTROLS:

Exposure Limits Values:

	OSHA PEL:	ACGIH TLV:
Petrolatum USP	Not Established	Not Established

Engineering Controls:

If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified or flammable limits.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:

Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified.

Hand Protection:

For prolonged or repeated exposures, use impervious gloves. If handling hot material, material use insulated protective gloves.

Eye/Face Protection:

Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

Skin Protection:

No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious clothing (boots, aprons, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, aprons, etc.) Launder soiled clothes. Properly dispose of contaminated leather articles including shoes, which cannot be decontaminated.

General Hygiene Considerations:

Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking, or smoking.

Other Protective Equipment:

No information available.

PHYSICAL & CHEMICAL PROPERTIES – SECTION 9

PRODUCT:	Neomycin Antibiotic Ointment
General Information:	
Appearance	Off-white, lustrous ointment
Odor	Odorless
Important Health, Safety, and Environmental Information:	
Boiling Point	650°F (343.3°C)
Melting Point	125-130°F (51.7 – 54.4°C)
Flash Point	Higher than 93.3°C (200°C)
Explosive Properties	No information available.
Oxidizing Properties	No information available.
Specific Gravity *(H_2O = 1)*	0.86 – 0.87
Water Solubility	Insoluble in water
Partition Coefficient *(n-octanol/water)*	No information available.
Viscosity	No information available.
Vapor Pressure *(mm Hg)*	No information available.
Vapor Density *(Air = 1)*	No information available.
Evaporation Rate	No information available.
% Volatile (By Volume @ 68°F)	No information available.

STABILITY & REACTIVITY – SECTION 10

Stability:

Stable

Conditions to avoid:

Heat, sparks, flame.

Materials to avoid:

May react with strong oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

Hazardous Polymerization:

Will not occur.

TOXICOLOGICAL INFORMATION – SECTION 11

Type of Test	Route of Exposure	Effects	Species Observed	Dose Data
No information available.				

ECOLOGICAL INFORMATION – SECTION 12

Ecotoxicity:

No information available.

Mobility:

No information available.

Persistence and Degradability:

No information available.

Bio accumulative Potential:

No information available.

DISPOSAL CONSIDERATION – SECTION 13

All disposals of this material must comply with federal, state, and local regulations.

TRANSPORT INFORMATION – SECTION 14

DOT CLASSIFICATION:

UN Number:	Not Regulated for domestic transport.
Class:	
Proper Shipping Name:	
Packing Group:	
Marine Pollutant:	
Other Information:	

IATA CLASSIFICATION:

Un Number:	Not Regulated for international air transport.
Class:	

WATER-JEL TECHNOLOGIES

MATERIAL SAFETY DATA SHEET

Neomycin Antibiotic Ointment	MSDS No.:	013
	Revision No.:	4
	Effective Date:	12/27/2010

Proper Shipping Name:	
Packing Group:	
Marine Pollutant:	
Other Information:	
IMDG CLASSIFICATION:	
Un Number:	Not Regulated for international water transport.
Class:	
Proper Shipping Name:	
Packing Group:	
Marine Pollutant:	
Other Information:	

REGULATORY INFORMATION – SECTION 15	
US REGULATIONS	
ACGIH	Not Established
CAA Section 112	Not Listed
CERCLA	Not Listed
IARC	Not Listed
NTP	Not Listed
OSHA	Not Established
SARA Title III	Not Listed
TSCA	Not Listed
STATE REGULATIONS	
MA substance List	Not Listed
NJ RTK Hazardous Substance List	Not Listed
PA Hazardous Substance List	Not Listed
Canadian WHMIS	Uncontrolled product according to WHMIS classification criteria.

To the best of our knowledge, the information contained herein is accurate. However, neither Water-Jel Technologies, nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

WATER-JEL TECHNOLOGIES

MATERIAL SAFETY DATA SHEET

First Aid Burn Cream	MSDS No.:	007
	Revision No.:	5
	Effective Date:	12/27/2010

PRODUCT AND COMPANY INFORMATION – SECTION 1	
Manufacturer/Distributor	Water-Jel Technologies 50 Broad Street Carlstadt, NJ 07072 201-507-8300 800-275-3433
Product Name:	**First Aid Burn Cream**
Synonyms:	Topical Cream, Burn Cream
Intended Use:	First aid to help prevent infection and for temporary relief of pain in minor cuts, scrapes, and burns. For external use only.

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:
In the continental U.S.: 800-275-3433 **For additional information:** 201-507-8300

COMPOSITION INFORMATION – SECTION 2		
In accordance with 29 CFR § 1910.1200 (i) (1) the specific chemical identity of this product is being withheld as a trade secret.		
Chemical Name:	Cetyl Alcohol	
Percent:	Proprietary	
CAS Number:	36653-82-4	
Exposure Limits:	None Established	
Chemical Name:	Germaben II	
Percent:	Proprietary	
CAS Number:	No information available.	
Exposure Limits:	None Established	
Chemical Name:	Glycerin	
Percent:	Proprietary	
CAS Number:	56-81-5	
Exposure Limits:	ACGIH TWA (Glycerin Mist): Total Dust: 15 mg/m^3 Respirable Fraction: 5 mg/m^3	OSHA PEL (Glycerin Mist): Total Dust: 10 mg/m^3 Respirable Fraction: 5 mg/m^3
Chemical Name:	Glyceryl Monostearate SE (Glyceryl Stearate)	
Percent:	Proprietary	
CAS Number:	31566-31-3	
Exposure Limits:	TWA (Stearates): 10 mg/m^3	

Chemical Name:	White Mineral Oil
Percent:	Proprietary
CAS Number:	8042-47-5
Exposure Limits:	None Established
Chemical Name:	Peg 100
Percent:	Proprietary
CAS Number:	25322-68-3
Exposure Limits:	None Established
Chemical Name:	Stearic Acid
Percent:	Proprietary
CAS Number:	57-11-4
Exposure Limits:	None Established

HAZARDS IDENTIFICATION – SECTION 3	
EMERGENCY OVERVIEW & HAZARDS PRESENT TO MAN AND THE ENVIRONMENT	May cause irritation to eyes and may cause irritation of the digestive tract when ingested.
PRIMARY ROUTES OF EXPOSURE	Eye contact, Ingestion
POTENTIAL HEALTH EFFECTS:	
Eyes:	May cause irritation, characterized by a burning sensation, redness, tearing, inflammation, dryness, and possible other effects.
Skin:	No adverse conditions expected.
Inhalation:	Unlikely route of exposure.
Ingestion:	May cause irritation of the digestive tract.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	No information available.
CHRONIC HEALTH EFFECTS:	
Eyes:	Flush eyes with clear running water for a minimum of fifteen (15) minutes while holding eyelids open; if irritation persists, seek medical attention.
Skin:	No adverse conditions expected.
Inhalation:	Unlikely route of exposure.
Ingestion:	Rinse out mouth and drink lots of water. In case of unusual symptoms, seek medical attention and show physician the container details.

FIRST AID MEASURES – SECTION 4	
SEEK MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE.	
FIRST AID MEASURES:	
Eyes:	Flush immediately with large amounts of water. If redness or irritation persists, contact a physician.
Skin:	No adverse conditions expected.
Inhalation:	Unlikely route of exposure.
Ingestion:	Contact a physician immediately.
Instructions for Physician:	Available date does not identify any conditions.

FIRE FIGHTINHG MEASURES – SECTION 5

NFPA Classification

Health	Fire	Reactivity	Other
1	0	0	N/A

FLAMMABILITY PROPERTIES

Flash Point:	N/A	**Method:**	N/A		
Flammability Limits: (in air % by volume)		**LEL:**	N/A	**UEL:**	N/A

Autoignition Temperature:

N/A

Hazardous Combustion Products:

Carbon Monoxide, Carbon Dioxide

Extinguishing Media:

Use extinguishing media appropriate for the surrounding fire. Use water spray, foam or dry chemical.

Prohibited Extinguishing Media:

In fires involving large quantities of this product, the use of large streams of water should be avoided.

Firefighting Instructions:

Use self-contained breathing apparatus when fighting fires that involve this material.

Unusual Fire and Explosion Hazards:

Carbon monoxide and carbon dioxide may be generated.

ACCIDENTAL RELEASE MEASURES – SECTION 6

Environmental Precautions:

No information available.

Cleanup Methods:

Small spills: Spills should be collected with approved inert absorbent for disposal.

Large spills: Spills should be collected with approved absorbent for disposal.

HANDLING & STORAGE – SECTION 7

Handling:	Keep this and other chemicals out of reach of children.
Storage:	Do not store or mix with strong acids or oxidizers.
Specific Uses:	First aid to help prevent infection and for temporary relief of pain in minor cuts, scrapes and burns. For external use only.

EXPOSURE CONTROLS / PERSONAL PROTECTION – SECTION 8

EXPOSURE CONTROLS:

Exposure Limits Values:

	OSHA PEL:	ACGIH TLV:
Stearates (Glyceryl Stearate)	Not Established	10 mg/m^3
Glycerin Mist (Glycerin)	Total Dust: 15 mg/m^3 Respirable Fraction: 5 mg/m^3	Total Dust: 10 mg/m^3 Respirable Fraction: 5 mg/m^3

Engineering Controls:

Local Exhaust is recommended.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:

None required under normal conditions.

Hand Protection:

None required under normal conditions.

Eye/Face Protection:

Eye protection, as necessary to prevent excessive contact.

Skin Protection:

None required under normal conditions.

General Hygiene Considerations:

Practice safe work habits. Use according to label instructions.

Other Protective Equipment:

Eye wash stations should be nearby and ready for use.

PHYSICAL & CHEMICAL PROPERTIES – SECTION 9	
PRODUCT:	**First Aid Burn Cream**
General Information:	
Appearance	White homogeneous cream
Odor	Slightly fatty odor
Important Health, Safety, and Environmental Information:	
Boiling Point	135°C 275°F
Melting Point	60°C (140°F)
Flash Point	N/A
Explosive Properties	No information available.
Oxidizing Properties	No information available.
Specific Gravity *(H_2O = 1)*	0.81
Water Solubility	Miscible
Partition Coefficient *(n-octanol/water)*	No information available.
Viscosity	No information available.
Vapor Pressure *(mm Hg)*	No information available.
Vapor Density *(Air = 1)*	No information available.
Evaporation Rate	0.07
% Volatile *(By Volume @ 68°F)*	65

STABILITY & REACTIVITY – SECTION 10

Stability:

This material is stable under normal conditions.

Conditions to avoid:

Extreme heat

Materials to avoid:

Strong oxidants, Strong Acids

Hazardous Decomposition Products:

Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization:

Will not occur.

TOXICOLOGICAL INFORMATION – SECTION 11

Type of Test	Route of Exposure	Effects	Species Observed	Dose Data
LD_{50} – (Cetyl Alcohol)	Oral	Death	Rodent - Rat	5 mg/kg
LD_{50} – (Glycerin)	Oral	Death	Rodent - Rat	12600 mg/kg
LD_{50} – (Glyceril Stearate)	Intraperitoneal	Death	Rodent - Mouse	200 mg/kg
LD_{50} – (Mineral Oil)	Oral	Death	Rodent - Mouse	22 gm/kg
LD_{50} – (Stearic Acid)	Intravenous	Death	Rodent - Rat	21500 ug/kg

ECOLOGICAL INFORMATION – SECTION 12

Ecotoxicity:

No information available.

Mobility:

No information available.

Persistence and Degradability:

No information available.

Bio accumulative Potential:

No information available.

DISPOSAL CONSIDERATION – SECTION 13

Dispose of in accordance with Local, State, and Federal regulations.

TRANSPORT INFORMATION – SECTION 14

DOT CLASSIFICATION:

UN Number:	Not Regulated for Domestic Transport.
Class:	

Proper Shipping Name:	Not regulated for Domestic Transport.
Packing Group:	
Marine Pollutant:	
Other Information:	
IATA CLASSIFICATION:	
Un Number:	Not Regulated for International Air Transport.
Class:	
Proper Shipping Name:	
Packing Group:	
Marine Pollutant:	
Other Information:	
IMDG CLASSIFICATION:	
Un Number:	Not Regulated for International Water Transport.
Class:	
Proper Shipping Name:	
Packing Group:	
Marine Pollutant:	
Other Information:	

REGULATORY INFORMATION – SECTION 15	
US REGULATIONS	
ACGIH	TWA (Glycerin Mist): Total Dust: 15 mg/m^3 Respirable Fraction: 5 mg/m^3
	TWA (Stearates): 10 mg/m^3
CAA Section 112	Not Listed
CERCLA	Not Listed
IARC	Not Listed
NTP	Not Listed
OSHA	OSHA PEL (Glycerin Mist): Total Dust: 10 mg/m^3 Respirable Fraction: 5 mg/m^3
SARA Title III	Not Listed

TSCA	Not Listed
STATE REGULATIONS	
MA substance List	Not Listed
NJ RTK Hazardous Substance List	Not Listed
PA Hazardous Substance List	Not Listed
Canadian WHMIS	Not Listed

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ALTAIRE PHARMACEUTICALS INC

▸Material Safety Data Sheet

NFPA Hazard Code(Health, Flammability, Reactivity):
HPCA Hazard Code(Health, Flammability, Reactivity):
SIC CODE 20 (Food and Kindred Products)

Date last revised: 01-01-07

I. GENERAL INFORMATION

Product Name: **EYE WASH** Sterile Isotonic Buffered Solution	Trade Name & Synonyms of Hazardous Component(s): Sterile isotonic buffered solution.
Type of Formulation: Sterile Eye Wash	Formula: On file
Manufacturer/Distributor & Address: Altaire Pharmaceuticals Inc. P.O. BOX 849 Aquebogue, NY 11931	Manufacturer's Phone Number: (631) 722-5988

II. INGREDIENTS

Principal Hazardous Component(s):	Percent:	Threshold Limit Value (units):
N/A		

III. PHYSICAL DATA

Boiling Point(F)	Specific Gravity(H_2O = 1): 1.000 - 1.025
Vapor Pressure(mm Hg.):	Percent Volatile by Volume(%): 0%
Vapor Density (Air = 1):	Evaporation Rate(_____ =1): N/A
Solubility in Water - (g/100mL)25°C= Soluble	pH 7.15 - 7.25
Appearance & Odor: Clear colorless solution.	

▸Material Safety Data Sheet

Product Name: EYE WASH

IV. FIRE & EXPLOSION HAZARD DATA

Flash Point (Test Method): N/A

Auto Ignition Temperature: Water Solution

Flammable Limits: N/A Water solution LEL: UEL:

Extinguishing Media: N/A water based solution

Special Fire Fighting Procedures: N/A water based solution

Unusual Fire & Explosion Hazards: N/A water based solution

V. HEALTH HAZARD DATA

OSHA Permissible Exposure Limits: None

ACCGIH Threshold Limit Value: None

Carcinogen - NTP Program
Not listed

Carcinogen - IRAC Program
Not listed

Symptoms of Exposure: None listed at this time.

Medical Conditions Aggravated by Exposure: None listed at this time.

Primary Route(s)of entry: Ingestion, inhalation, absorption through skin.

Emergency First-Aid: Contact local medical facility.

Material Safety Data Sheet

Product Name: EYE WASH

VI. REACTIVITY DATA

Stability: ✓ Stable ____ Unstable	Conditions to Avoid: Excessive heat or cold
Incompatibility: None listed	Materials to Avoid: None listed
Hazardous Polymerization: ____ May Occur ✓ Will Not Occur:	Conditions to Avoid: None listed beyond above.

Hazardous Decomposition Products:

VII. ENVIRONMENTAL PROTECTION PROCEDURES

Spill Response: Absorb on absorbent materials, place in disposable container.

Waste Disposal Method: Dispose as per local, state and federal environmental regulations.

VIII. SPECIAL PROTECTION INFORMATION

Eye Protection: N/A

Skin Protection: N/A

Respiratory Protection (Specific Type): N/A

Ventilation Recommended: ADEQUATE

Other Protection: None required

IX. SPECIAL PRECAUTIONS

Hygienic Practices in Handling & Storage: Avoid excessive heat and cold.

Precautions for Repair & Maintenance of Contaminated Equipment: N/A

Other Precautions: N/A

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Shanghai Intco Medical Supply Co. Ltd
NO. 1299 Hubin Road, Fengxian, Shanghai, 201417,China
Tel: 0086-21-57451159
Fax:0086-21-57 451877

Material Safety Data Sheet
AMMEX ice packs, product codes:
B503-WIP, FAO-ICE 4X5/JR, FAO-ICE6X9
FAO-ICE6X9/BB

MATERIAL SAFETY DATA

Date: 05/14/2008
Supercedes: 07/23/04

PRODUCT IDENTIFICATION

NAME: Instant Cold Compress
SYNONYMS: instant cold pack, instant ice pack, ice pack
CHEMICAL FAMILY: cold therapy
MOLECULAR FORMULA: Mixture
MOLECULAR WGT.: Mixture

OSHA REGULATED COMPONENTS

COMPONENT	CAS. NO.	%	PEL/TWA	REFERENCE
Ammonium Nitrate	6484-52-2	40-70	//	OSHA/ ACGIH
water	7732-18-5	30-60	//	OSHA/ ACGIH

Fire-Fighting Measures:

FLASH POINT: non-sense
MELTING POINT 169.6C (337.28F)
METHOD: Closed Cup

HEALTH HAZARD INFORMATION

EFFECTS OF OVER EXPOSURE: Effects of overexposure may include irritation of the nose, throat and digestive tract; coughing, nausea, vomiting, diarrhea, abdominal pain, breathing difficulties, and blood disorders (methemoglobinemia).

FIRST AID Measures:

Skin: Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap or water. If irritation or redness develops, seek medical attention.

Inhalation (Breathing): If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): If swallowed, seek emergency medical attention. If victim is drowsy or unconscious and vomiting, place on left side with the head down and do not give anything by mouth. If victim is conscious and alert and ingestion occurred within the last hour, vomiting should be induced for ingestion of large amounts (more than 5 ounces in an adult) under direction from a physician or poison center. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined

spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk.

EXPOSURE CONTROL METHODS

Engineering controls are not usually necessary if good hygiene practices are followed. Before eating, drinking, or smoking, wash face and hands thouroughly with soap and water. Avoid unnecessary skin contact. Impervious gloves are recommended to prevent prolonged skin contact. For operations where eye or face contact can occur, eye protection is recommended.

HAZARD INFORMATION

FLAMMABLE LIMITS (% BY VOL): Not Applicable

AUTO IGNITION TEMP.: Not Available

DECOMPOSITION TEMP.: Not Available

REACTIVITY:

Chemical Stability: Stable under normal conditions of storage and handling. Dry chemical is an oxidizer and may promote combustion in other materials.

Conditions To Avoid: This material may be an oxidizer. Do not heat above 250°F. Do not let dry chemical or solution dry or crystallize in contact with organic, reactive, or combustible materials (see Sections 7).

Incompatible Materials: Avoid contact with reactive, combustible, or organic materials, such as wood, grain, organic chemicals, acids, corrosive liquids, sulfur, flammable liquids, chlorates, permanganates, finely divided materials, charcoal, coke, cork, or sawdust. Avoid contact with other oxidizers. Contact with alkaline materials may liberate ammonia.

Hazardous Decomposition Products: Material will not burn, but if involved in a fire, oxides of nitrogen may be generated. Exposure to heat may liberate ammonia fumes.

Hazardous Polymerization: Will not occur.

PHYSICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).
Flash Point: None
Flammable/Explosive Limits (%): LEL/UEL: No data
Autoignition Temperature: No data
Appearance: White solid in water bag
Physical State: solid/Liquid
Odor: None
pH: No data
Vapor Pressure (mm Hg): No data
Boiling Point: No data
Freezing/Melting Point: No data
Solubility in Water: 100%
Specific Gravity: approx 1.3
Evaporation Rate (nBuAc=1): No data

SPILL OR LEAK PROCEDURES

The dry chemical of this material is an oxidizer. Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof equipment is recommended. Stay upwind and away from spill/release. Notify person down wind of spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done

with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended.

WASTE DISPOSAL Disposal must be made in accordance with applicable governmental regulations.

SPECIAL PRECAUTIONS

Handling: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 2 and 8). Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Container should be disposed in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA Regulations, ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, welding, or other contemplated operations.

Storage: Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Post area "No Smoking or Open Flame." Solution is corrosive to copper, copper alloys, lead, and zinc. Store to avoid contact with incompatible materials such as ordinary combustibles, flammable liquids, greases, and those materials, including other oxidizers, that could react with the oxidizer or catalyze its decomposition (see Section 10). Prohibit accumulation of combustible waste in storage areas. Combustible construction materials that may be in contact with oxidizers shall be protected with a compatible coating to prevent impregnation of the combustible materials by the oxidizers. Protect container(s) against physical damage.

D.O.T. SHIPPING INFORMATION

PROPER SHIPPING NAME:	CONSUMER COMMODITY
HAZARD CLASS:	ORM-D
UN/NA:	NOT APPLICABLE
SUBSTANCES:	Ammonium Nitrate (120g 50%) Water (120g 50%)
LABEL REQUIRED:	NOT APPLICABLE

NOT AN ACCEPTABLE CLASSIFICATION WHEN USING IATA DANGEROUS GOODS REGULATIONS

TSCA INFORMATION This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C.

TOXICOLOGICAL INFORMATION

No definitive information available on carcinogenicity, mutagenicity, target organs or developmental toxicity.

Disposal This material, if discarded as produced, may be a RCRA "characteristic" hazardous waste due to the

Consideration: characteristic(s) of ignitability (D001). If the material is spilled to soil or water, characteristic testing of the contaminated materials is recommended. To assure proper disposal, consult with state and local regulations and disposal authorities.

REGULATORY INFORMATION

This material contains the following chemicals subject to the reporting requirements of **SARA 313** and 40 CFR 372.

COMPONENT	CAS NUMBER
Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing)	7446-41-7
Water dissociable nitrate compounds	None

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of **California Proposition 65** (CA Health & Safety Code Section 25249.5)

This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA
NOT APPLICABLE UNDER SARA TITLE III

MATERIAL SAFETY DATA SHEET

James Alexander Corporation 845 Route 94 Blairstown, NJ 07825

Product Name: AMMONIA INHALANT SOLUTION

MSDS Effective Date: September 10, 2004

CHEMTREC 24 Hour Emergency Phone: (800) 424-9300 **Note:** The CHEMTREC emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to JAC at (908) 362-9266.

I. PRODUCT IDENTIFICATION

ManufacturerÕs Name James Alexander Corporation **Phone**: (908)362-9266
Emergency Telephone No.: (800)424-9300 (CHEMTREC)

Address: 845 Route 94 Blairstown, NJ 07825

Product Name: AMMONIA INHALANT SOLUTION

Synonyms: N/A

D.O.T. Shipping Name: Air shipments: Flammable Liquid Corrosive NOS, 3- UN 2924, PGII (Ammonia, ethanol)
Ground shipments: Consumer Commodity- ORM-D

NFPA Ratings: Health - 3 Flammability - 3 Instability - 1

II. HAZARDOUS INGREDIENTS

			OSHA	ACGIH	
Component	**CAS No.**	**%**	**PEL/TWA**	**TLV/TWA**	**TLV/STEL**
Ammonia	7664-41-7	17.5	50 ppm	25 ppm	35 ppm
Ethyl Alcohol	64-17-5	37.5	1000 ppm	1000 ppm	Not listed

III. PHYSICAL DATA

Boiling Point: N/A for mixtures **Melting Point**: Unknown

Specific Gravity: 0.891 25/25 **Vapor Pressure**: Unknown

Vapor Density: Unknown **Solubility in water**: Very soluble

% volatiles by vol.: 55% **Evaporation Rate** (Butyl acetate=1): Unknown

Appearance and odor: Clear, pink to light red liquid. Pungent odor of ammonia.

pH: Unknown

IV FIRE & EXPLOSION INFORMATION

Flash Point: Less than 50 degrees F **Test Method**: Pensky Martens Closed Cup
Autoignition temp: Ammonia 1204 degrees F (651°C); Ethyl Alcohol: 685 degrees F (363°C)

Flammable limits in air % by volume: Lower (Unknown) Upper(Unknown)

Extinguishing media: ÒAlcohol resistantÓ foam, CO_2 or dry chemical.

Special fire fighting procedures:

NOTE: Individuals should perform only those fire-fighting procedures for which they have been trained.

Remove all sources of ignition. Move exposed containers from fire area if it can be done without risk. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Spray extinguishing media directly into base of flames. Water may be used to keep fire-exposed containers cool.

Unusual fire and explosion hazard: When heated, mixture will give off ammonia gas, a strong irritant to eyes, respiratory tract, and mucous membranes. Other toxic gases produced are oxides of nitrogen, carbon monoxide, carbon dioxide and hydrogen. Closed containers exposed to heat may develop pressure and explode.

Alcohol vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires.

V. HEALTH HAZARD INFORMATION

Primary routes of exposure: Inhalation, eye contact, skin contact, ingestion.

Signs and symptoms of overexposure:

Inhalation: Irritation or burns of the respiratory system, headache, coughing, lung congestion or inflammation, pulmonary edema, breathing difficulty. Headache, dizziness, drowsiness, loss of appetite and an inability to concentrate.

Eye contact: Severe irritation or burns, may lead to blindness.

Skin contact: Local irritation, dry skin, burns.

Ingestion: Burning pain in mouth, throat, constriction of throat, coughing, followed by nausea, vomiting or diarrhea. Ingestion may prove fatal.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing nervous system disorders, skin disorders, eye problems, or impaired respiratory function may be more susceptible to the effects of overexposure.

VI. EMERGENCY AND FIRST AID PROCEDURES

For Inhalation: Remove subject immediately to fresh air. Give artificial respiration if victim is not breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

For Eye Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes. Eyelids should be held apart and away from eyeball for thorough rinsing. Do not permit victim to rub eyes. Get immediate medical attention.

For Skin Contact: Immediately flush skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Do not rub or apply ointment to affected area. Obtain medical attention if irritation persists. Wash clothing before re-use.

For Ingestion: Contact a Poison Control Center *immediately*. Do NOT induce vomiting. If conscious, have victim swallow large amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Get *immediate* medical attention.

VII. TOXICITY DATA

None of the components present in this formulation are currently classified as carcinogens in the NTP Annual Report on Carcinogens, IARC Monographs or by OSHA.

VIII. PERSONAL PROTECTION

Storage Requirements: Protect containers from physical damage. Detached or outside storage is preferred. Inside storage should be in an NFPA approved flammable liquids storage room or cabinet. Store in corrosion-proof area at temperatures below 77 degrees F (25°C). Do not store in direct sunlight. Isolate from incompatible materials. Keep containers tightly closed.

Handling Requirements: All ignition sources should be eliminated. Remove closure carefully; internal pressure may be present. Keep closure up to prevent leakage. When contents are being transferred, metallic containers must be bonded to the receiving container and grounded to avoid static discharges. Never use pressure to empty containers. Replace closure carefully after each opening.

Ventilation: Not required for product (JAC unit dose inhalant) use. When handling bulk material, use general or local exhaust ventilation to meet TLV requirements. Where engineering controls are not feasible or sufficient to achieve full conformance with acceptable exposure limits, use NIOSH approved respiratory protection equipment. Care must be taken to assure that any respirator chosen is capable of protecting the user from **both ammonia and ethyl alcohol vapors**. In some cases, a self-contained breathing apparatus may be advisable.

Eye Protection: Not required for product (JAC unit dose inhalant) use. When handling bulk material, always wear gas-tight, splash-proof chemical safety goggles meeting OSHA 29CFR 1910.133 specifications.

Skin Protection: Not required for product (JAC unit dose inhalant) use. Use rubber gloves, protective suit, face shield and overshoes when handling bulk product.

IX. HAZARDOUS REACTIVITY

Stable at room temperature. Hazardous polymerization will not occur. However, product will react exothermically with acids. Releases ammonia vapor when heated. Ammonia component will decompose to hydrogen and oxides of nitrogen when heated. Carbon monoxide gas may also be produced when heated.

Conditions To Avoid: Sunlight, heat (heating above ambient temperatures causes the vapor pressure of the solution to increase).

Avoid mixing with acids, most common metals, strong oxidizing agents, brass, zinc, chlorine, aluminum, copper, bronze, mercury, dimethyl sulfate and acetyl chloride.

X SPILL, LEAK AND DISPOSAL PROCEDURES

For large spills, stop leak if you can do so without risk. Extinguish all sources of ignition. Wear self-contained breathing apparatus, chemical safety goggles and full protective clothing. Ventilate area. Spilled liquids should be contained and not washed into sewers or ground water. Contain by diking with non-combustible absorbent materials and place residue in DOT approved waste container.

Comply with all applicable local, state and federal regulations on spill reporting, handling and disposal of waste.

Other Precautions: Containers, even those that have been emptied, will retain product residue and vapors. Handle empty containers as if they were full.

Prepared By: David Robinson
Title: Vice President
Date of Initial Preparation: June 1989
Latest Revision Date: September 10, 2004

NOTE: This Material Safety Data Sheet is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, the safe handling of chemical materials. James Alexander Corporation (JAC), expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein.

All information appearing herein is based upon data obtained from the manufacturer(s) and/or recognized technical sources. While the information is believed to be accurate, JAC makes no representations as to its accuracy or sufficiency. Conditions of use are beyond JACÕs control and therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein and does not relate to its use in combination with any other material or in any other process.

DUKAL CORPORATION	**Material Safety Data Sheet (MSDS)** **BZK Prep Pads and Towelette**	Dukal Corporation 2 Fleetwood Court Ronkonkoma, NY 11779 631-656-3800

SECTION I – PRODUCT IDENTIFICATION

PRODUCT: **BZK Prep Pads and Towelette**

Product Trade Name:	Dukal BZK Pads and Towelette (private label included)
Chemical name and Synonyms:	Benzalkonium Chloride
Chemical Formula	C22H40ClN
Emergency Telephone Number:	631-656-3800

SECTION II – HAZARDOUS INGREDIENTS

Hazardous Components (Specific Chemical Identity Common Name(s))	OSHA PEL	ACGIH TLV	Other	% (optional)

No component over 1%

NFPA **Health = 0** **Flammability = 0** **Reactivity = 0**

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS

Physical State:	Individually sealed BZK Packet
Boiling Point:	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density:	N/A
Specific Gravity:	0.878
Melting Point:	N/A
Evaporation Rate (Butyl Acetate=1):	N/A
Solubility in Water:	Pad is not soluble in water
Appearance and Odor:	White Towelette saturated with Solution

SECTION IV– FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used):	N/A
Flammable Limits:	N/A
LEL:	N/A
UEL:	N/A
Extinguishing Media:	Any Type
Special Fire Fighting Procedures:	Wear proper protection, fight fire from a safe distance.
Unusual Fire and Explosion Hazards:	None Known

SECTION V– REACTIVITY DATA

Stability Stable

Incompatibility (Materials to Avoid): None Known

Hazardous Decomposition or Byproducts: None

Hazardous Polymerization Will Not Occur

SECTION VI– HEALTH AND HAZARD DATA

Route(s) of Entry:

Inhalation?	None
Skin?	Discontinue if rash or irritation occurs
Ingestion?	None

Health Hazards (Acute and Chronic): Prolonged breathing of vapors may cause coughing, shortness of breath, intoxication. Eye contact may cause moderate irritation.

Carcinogenicity

NTP?	NA
LARC Monograph?	NA
OSHA Regulated?	NA

Signs and Symptoms of Exposure: Coughing, dizziness and watery eyes

Medical Conditions Generally Aggravated by Exposure: Sensitive or inflamed skin may become irritated.

Emergency and First Aid Procedures: If large quantities are ingested, administer warm water and contact physician. With eye contact, flush with water. If irritation persists, contact physician.

SECTION VII– PRECAUTION FOR SAFE HANDLING AND USE

Steps to be taken in Case Material is Released or Spilled: Eliminate all sources of ignition and flush with large quantities of water spray.

Waste Disposal Method: Follow local, state and federal regulations

Storage: None

Precautions to Be taken in Handling and Storage: None Known

Other Precautions: None Known

SECTION VIII– CONTROL MEASURES

Respiratory Protection (Specific Type): NA

Ventilation

Local Exhaust: None
Mechanical (General): None
Special: NA
Other: NA

Protective Gloves: NA

Eye protection: Goggles: Use eye bath if eye contact occurs.

Other Protective Clothing or Equipment: NA

Work / Hygiene Practices: Good hygienic practice.

SECTION IX– INTERNATIONAL TRANSPORT INFORMATION

Product Class: DOT not regulated

UN Number:

Issue Date: 8-26-10
Prepared by: Jim Vilardi

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text