Safety Data Sheet

No. AP-101-JB

*** Section 1 – Product and Company Identification ***

Product Name : Mic-Ro-Pac 11-8-5 Liquid Fertilizer + Micronutrients
Product Use : Inorganic Liquid Foliar Fertilizer
Synonyms : None
Manufacturer/Supplier : Atlantic-Pacific Agricultural Company,
Address : 427 Ridge Street, Reno, NV 89509
Company Web Site: www.atlantic-pacificag.com
Corporate Telephone Number : 941-474-8382
Emergency Telephone Number : 336-260-3121

*** Section 2 - Hazards Identification ***

Classification of the substance or mixture: This product is classified and labeled according to Global Harmonized System (GHS)

Signal word (GHS-US) : **Warning**

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H320 - Causes eye irritation
H333 - May cause respiratory irritation

Precautionary statements (GHS-US) :
P101 - If medical advice is needed, have product label/container at hand
P102 - Keep out of Reach of Children
P103 - Read label before use
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash ... thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor/… if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P501 - Dispose of contents/container to ... specify in accordance with local/regional/national regulations

National Fire Protection Classification Association (NFPA)
Rating : Health 1 Fire 0 Reactivity 0
NFPA Rating Level : 0-Minimum; 1-Slight; 2- Moderate; 3-High 3 High; 4-Extreme

HMIS (OSHA) Classification Rating :
Health 1 Fire 0 Reactivity 0
HMIS Rating Level : 0-Minimum; 1-Slight; 2- Moderate; 3-High 3 High; 4-Extreme

Other Hazards : No additional Information
Unknown Acute Toxicity : No data available

Hazard(s) not otherwise classified (HNOC): None Known.

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Mixture	Blend of plant nutrients, derived from: Aqua Ammonia, Potassium Nitrate, Urea, Diammonium Phosphate, Phosphoric Acid, Sodium Tetraborate, Cobalt Sulfate, Copper EDTA, Iron EDTA, Manganese EDTA, Sodium Molybdate and Zinc EDTA.	**100.00%***

Individual Component Information (Not Mixture):

CAS #	Component	Hazard	Percent Range
7664-41-7	Ammonium Hydroxide	Corrosive to eyes/skin. Severe Inhalation Irritant	10-15
7757-79-1	Potassium Nitrate	Contact with combustible material may cause fire	4-6
7664-38-2	Phosphoric acid	Corrosive/burns when inhaled and in contact/eyes/skin	10-14
57-13-6	Urea	Skin and inhalation irritant	15-20
1330-43-4	Sodium Tetraborate	Nuisance Dust/Inhalation irritant	0.1-0.2
10124-43-3	Cobalt Sulfate	May cause skin and throat irritation	<0.10
7790-62-7	Sodium Molybdate	May cause skin and throat irritation	<0.10
14025-15-1	Copper EDTA	May irritate eyes and skin	<0.10
15708-41-	Iron EDTA	May irritate eyes and skin	<0.10
15375-84-5	Manganese EDTA	May irritate eyes and skin	<0.10
14025-21-9	Zinc EDTA	May irritate eyes and skin	<0.10

***Proprietary components are Trade Secret Information and information on those components, if needed by medical authority or regulatory authority are available by calling the emergency number in Section 1 of this SDS**

See Section 2 for **Mic-Ro-Pac** Product Classification Information, Hazard and Precautionary Statements.

*** Section 4 - First Aid Measures ***

Description of First Aid Measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash with plenty of soap and water. Remove and wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see ... on this label).

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most important Symptoms both acute and delayed

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

*** Section 5 - Fire Fighting Measures ***

Extinguishing media : Use fire extinguishing media appropriate for surrounding materials. Water, spray, foam, dry powder or carbon dioxide.

Specific Hazards Arising from the from the chemical : This material is non-combustible. If heated, corrosive and toxic vapors/gasses/mists may be formed. Hazardous combustion products include ammonia and phosphorous oxides.

Firefighting Instructions

Advice for firefighters : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions : Avoid inhalation of vapors, especially if there is a fire.
Containment Procedures : Contain spill. Do not allow material to run into sewers and drains.
Clean-Up Procedures : Absorb spill with inert material. Shovel material into appropriate labeled, container for disposal. Flush small residuals to the drain for normal biological treatment.
Evacuation Procedures : None required.
Special hazards arising from the substance or mixture : This material is non-combustible. If heated, corrosive and toxic vapors. vapors/gases may be formed, which include ammonia, phosphorous oxides.

* * * Section 7 - Handling and Storage * * *

Handling Procedures : Avoid contact with eyes, ski and clothing. Avoid breathing vapors, spray or mists. Ensue here is access to eyewash and showers in the manufacturing area close to the workstation location.
Storage Procedures : Keep containers tightly closed. Store in a cool, well ventilated area. Do not freeze. Keep away from heat and direct sunlight.

* * * Section 8 - Exposure Controls / Personal Protection * * *

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed:
Keep away from foodstuffs. Beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Store protective clothing separately.
Avoid contact with eyes and skin.
Use tightly sealed goggles.
Use protective gloves.
Avoid breathing of dusts/vapors/mists: Use appropriate breathing apparatus.

Section 8 Exposure Controls/Personal Protection for Some Component hazards Continued.

Ammonium Hydroxide / 1336-21-6 39.1% 25 ppm TWA35 ppm STEL 50 ppm PEL 300 ppm IDLH

Urea 57-13-6 is treated by OSHA as a Nuisance Dust "Particulate Not Otherwise Classified"
OSHA PEL TWA 5mg/m^3
ACGIH TWA 10mg/m^3

Phosphoric acid 7664-38-2 ACGIH/TLV 1mg/m^3 OSHA/PEL3 mg/m^3 Corrosive. Causes severe irritation and burns to every area of contact.

Sodium Borate (Solubor) 1330-43-4 is treated by OSHA and CAL OSHA as "Particulate Not Otherwise Classified" or "Nuisance Dust." U.S. Borax Inc. recommends and applies internally an Occupational Exposure Limit (OEL) of 1 mg B/m3. ACGIH, which is not a regulatory agency, has established a Threshold Limit Value (TLV) for borates.

OSHA/PEL (total dust):	15 mg/m3
OSHA/PEL (respirable dust):	5 mg/m$_3$
Cal OSHA/PEL:	5 mg/m$_3$
ACGIH/TLV:	2 mg/m$_3$ (TWA) 6 mg/m$_3$ (STEL) (inhalable fraction –Borate Compounds, inorganic)

* * * Section 9 - Physical & Chemical Properties * * *

Form	: Liquid
Odor/Appearance	: Clear light to dark green liquid, vitamin odor.
Flash Point	: Not applicable.
Boiling Point, ^{0}F	: >100^{0}C (212$^{0)}$ F.
Melting point (freezing point)	: <1.2^{0}C (34F)
Vapor Pressure, mm Hg @ 200^{0}C	: 18mm Hg @ 23 Degrees C.
Vapor Density	: 0.80 g/l
Solubility in water	: 100%
Density	: 1.23 -1.27gm/ml. Avg. 1.26g/ml (10.5lbs/gal)
Evaporation Rate (butyl acetate=1)	: Not determined.
Octanol/Water Partition Coefficient	: Not applicable
pH	: 5.3 – 6.1
Flammable Limits (approx. volume % in air)	: Not applicable.
Auto-Ignition Temperature	: Not applicable.
Decomposition temperature	: >200^{0}C
VOC's	: Not Applicable.
Viscosity	: Not determined

*** Section 10 - Chemical Stability & Reactivity Information ***

Reactivity : None.
Chemical Stability : None.
Hazardous Decomposition Product : Ammonia gas and phosphorous oxides may be produced under fire conditions.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None known.
Incompatible Materials : Strong bases. Strong acids

*** Section 11 - Toxicological Information ***

LC/LD 50 Values that are relevant for classification

Acute Toxicity :
Component Derivation Toxicity

Ammonium Hydroxide : CAS # 7664-41-7; Oral Toxicity-LD_{50}, rat: >350mg/kg; 90 ml/kg.
Potassium Nitrate : CAS # 7757-79-1; Oral Toxicity-LD_{50}, rabbit: 1951mg/kg.
Diammonium Phosphate : CAS # 7783-28-0; Oral Toxicity-LD50 rat: >2000mg/kg; Dermal: >5000mg/kg.
Phosphoric acid : CAS # 7664-38-2; Oral toxicity-LD50rat: 1530; Dermal: 2750, rabbit.
Urea : CAS # 57-13-6; Oral toxicity-LD50 rat: 8751mg/kg.
Sodium Tetraborate : CAS # 1330-43-4; Oral toxicity-LD50 rat: 2.6g/kg.
Cobalt Sulfate : CAS # 10124-43-3 Oral Toxicity-LD50rat: 524mg/kg.
Sodium Molybdate : CAS # 7790-62-7 Oral Toxicity-LD50rat: 11900mg/kg.
Copper EDTA : CAS # 14025-15-1 Not available
Iron EDTA : CAS # 15708-41-5 Oral Toxicity-LD50rat: 2000mg/kg
Manganese EDTA : CAS # 15375-84-5 Oral Toxicity-LD50rat: 2000mg/kg

Likely Routes of Entry : Skin, eyes, inhalation
Skin Irritation : Slighty Irritating
Eye Irritation : Not available, suspect mild to minimally irritating.
Skin Sensitization : Not available, suspect mild irritation.
Carcinogenic : None currently known.
Chronic Effects : None currently known.
Other Hazards : None currently known.

*** Section 12 - Ecological Information ***

Ecotoxicity : No data available
Persistence and Degrability : No data available
Bioaccumulative Potential : No data available
Mobility in Soil : No data available
Other Adverse Effect : Keep out of waterways.

*** Section 13 - Disposal Considerations ***

Waste Disposal Methods : Any unused product, waste or cleaned up spill must absorbed and/or properly labeled container and disposed of according to Federal, State or Local procedures under the Resource Conservation Act.

Container Disposal : Triple rinse (or equivalent) any container, then puncture and dispose of in a sanitary landfill or incineration (if allowed by state and local authorities) by burning.

*** Section 14 - Transportation Information ***

UN – Number:
DOT, ADR, ADN, IMDG, IATA: **Not Regulated Material**
UN-Proper shipping name:
DOT, ADR, ADN, IMDG, IATA: **Not Regulated Material**
Transport Hazard Class(es);
DOT, ADR, ADN, IMDG, IATA: **Not Regulated Material**
Packing group:
DOT, ADR, ADN, IMDG, IATA: **Not Regulated Material**
Environmental hazards: **Not applicable**
Special precautions for user: **Not applicable**
Transport in bulk according to Annex ll of MARPOL 73/78 and the IBC Code: **Not Applicable**
UN "Model Regulation": **Not regulated.**
Transportation Freight Classification; **Fertilizing Compound, (Manufactured Fertilizer), NOIBN; LIQUID (NMFC Item 68140, Sub 6, Class 70)**
Harmonized Systems Code : **(HS CODE) 310520 Mineral or Chemical Fertilizers Containing Nitrogen, Phosphorus, Potassium.**

*** Section 15 - Regulatory Information ***

Notification status:

TSCA; DSL; AICS: Yes – All chemical substances and components are on these lists.
SARA 304 – This material does not contain any components with a 304 EHS RQ.
SARA 311/312 Hazards – Acute health hazard.
SARA 302 – None of the ingredients are listed.
SARA 313 – (Specific toxic chemical listings): None of the ingredients are listed.
SARA 355 – (extremely hazardous substances): None of the ingredients are listed.
California Proposition 65; chemicals known to cause cancer: None of the ingredients ae listed.
Chemicals known to cause reproductive toxicity for females: None of the ingredients ae listed.
Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.
Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Carcinogenic categories:

EPA (Environmental Protection Agency): None of the ingredients are listed.
TLV (Threshold Limit Values set by ACGHI): None of the ingredients are listed.
NIOSH-CA (National Institute for Occupational Safety & Health: None of the ingredients are listed.

U.S. –New Jersey-Right to Know
Hazardous Substance List : Potassium Nitrate: (7757-79-1)

GHS Elements:
This product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard Pictogram:

Signal Word: **WARNING**

See Section 2 for Hazard Statements and Precautionary Statements

National Regulations: The product is subject to be classified according with the latest versions of the regulations on hazardous substances.

*** Section 16 - Other Information ***

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process unless specified in the text.

SDS History
This is a revised SDS/GHS formatted, 9-29-2015. All Sections updated and revised accordingly to GHS Standards.

This is the end of SDS ID: AP-101-JB