



American International Chemical, Inc.

Corporate Offices: (800) 238-0001

Internet: www.aicma.com Email: info@aicma.com

SPECIFICATION SHEET

LACTOBIONIC ACID

| Code No. | SCN No. | CAS No. | Effective Date | Product Manager | Rev. No. | Approved By |
|----------|---------|---------|--------------------|-----------------|----------|-------------|
| LBAGIP | 2998 | 96-82-2 | September 27, 2010 | MDS | No. 2 | TJK |

| | |
|-------------------------|---|
| CHARACTERISTICS: | A white to off white crystalline powder, odorless. Freely soluble in water. |
|-------------------------|---|

| | | |
|--|--|--|
| SPECIFICATIONS: | Assay (on dried basis) | 97.0-103.0% |
| | Identification | To pass test |
| | Loss on drying (1g, 105°C, vacuum, 4 hrs) | 5.0% max |
| | Residue on ignition | 0.1% |
| | Clarity of 10% w/v solution in water at 25°C | Clear or not more opalescent than reference suspension II (Eur Ph) |
| | Color of 10% w/v solution in water at 25°C | Colorless or not more colored than BY ₆ (Eur Ph) |
| | pH of 10% w/v solution in water | Between 1.0 and 3.0 |
| | Reducing sugar as glucose | 1% max |
| | Heavy metals | 10 ppm max |
| | Calcium | 500 ppm max |
| | Arsenic | 2 ppm max |
| | Silicate | 215 ppm max |
| | Chloride | 400 ppm max |
| | Sulfate | 400 ppm max |
| | Iron | 80 ppm max |
| | Microbial tests | |
| | Total microbial aerobic count | 100 CFU/g max. |
| | Enterobacteriaceae/1g | Not detectable |
| | Escherichia coli /10g | Not detectable |
| | Salmonella/10g | Not detectable |
| Pseudomonas/10 g | Not detectable | |
| Coagulase positive staphylococcus aureus/10g | Not detectable | |
| Bacterial Endotoxin Test (BET) | 100 EU*/g max | |
| *EU = Endotoxin units | | |

| | |
|-------------------|---|
| PACKAGING: | Standard packing to the USA is in 20 kg white carton boxes. |
|-------------------|---|

| | |
|----------------------|--|
| APPLICATIONS: | Lactobionic acid will form a gel film that is oxygen permeable and moisture impermeable, that is water soluble, has anti-aging properties, and high moisturizing properties. It has been used at a rate between 0.5% to 3%. Food: As a very high-end food preservative due to no effect on flavor, color, taste with excellent anti-oxidant properties. |
|----------------------|--|

| | |
|---|--|
| SHELF LIFE AND STORAGE INSTRUCTIONS: | Material should be re-tested against certificate of analysis 2 years from date of manufacture and stored in constant ambient environment of 25°C and 40% RH) |
|---|--|

| | |
|---------------|--|
| OTHER: | Manufacturing site is fully WHO cGMP compliant, as well as HACCP certified (a far more stringent quality framework). Additional certifications for manufacturer's facilities include Halal, ISO 9000-2000, ISO 14,000-2002 |
|---------------|--|