INTERNATIONAL MEDICATION SYSTEMS, LIMITED
1886 SANTA ANITA AVENUE, SOUTH EL MONTE, CALIFORNIA 91733
AREA CODE (800) 423-4136, (909) 980-9484 (INTERNATIONAL)
FAX (626) 459-5255

MATERIAL SAFETY DATA SHEET

SECTION I. IDENTIFICATION	
Identity/Material Name	Calcium Chloride Injection USP, 10%
Synonyms	Calcium Chloride Injection, Solution
Stock Number	3304
NDC Number	76329-3304-1
Unit Size	13.6 mEq (1g)/10 mL (unit-use package with a Luer-Jet™ Luer-Lock prefilled syringe)
Intended Use	Rx Only. 10% Calcium Chloride Injection, USP is indicated for the treatment of hypocalcemia in those conditions requiring a prompt increase in plasma calcium levels.
Company Information	
Manufacture	International Medication Systems, Limited (IMS) 1886 Santa Anita Avenue, South El Monte, California 91733 Tel (800) 423-4136 Fax (626) 459-5255
Emergency Number	(800) 423-4136 (US Domestic), (909) 980-9484 (International)

SECTION II. HAZARD(S) IDENTIFICATION		
Emergency Overview	Clear to slightly yellow Liquid Odorless 10% Calcium Chloride Injection, USP is irritating to veins and must not be injected into tissues since severe necrosis and sloughing may occur.	
Statement of Hazard	This product contains aluminum that may be toxic. Aluminum may reach toxic levels with prolonged parenteral administration if kidney function is impaired.	
Potential Health Effect	Injections of calcium chloride are accompanied by peripheral vasodilatation as well as local "burning" sensation and there may be a moderate fall in blood pressure. Should perivascular infiltration occur, I.V. administration at that site should be discontinued at once. Local infiltration of the affected area with 1% procaine hydrochloride, to which hyaluronidase may be added, will often reduce venospasm and dilute the calcium remaining in the tissues locally. Local application of heat may also be helpful.	
Hazard Class	Not applicable	
Hazard Category	GHS Classification	Not available
	Classification according to EC Directive 1272/2008	Eye Irrit. 2, H319
	Classification according to EC Directives 64/548/EEC (substances) or 1999/45/EC (mixtures)	Xi, R36

MATERIAL SAFETY DATA SHEET

SECTION III. COMPOSITION/INFORMATION ON INGREDIENTS		
Active Ingredient	Calcium Chloride	
	Approximate % by weight: 10%	RTECS No. EV9810000
	EC Number: Not Applicable	CAS #: 10035-04-8
Inactive Ingredients	Hydrochloric Acid Calcium Hydroxide Water for Injection USP	
Chemical Formula	$CaCl_2 \bullet 2H_2O$	

SECTION IV. FIRST-AID MEASURES	
Eye Contact	Flush eyes immediately with copious amounts of water. Seek medical attention if deemed necessary.
Skin Contact	Avoid direct skin contact. Wash affected skin surfaces immediately with mild soap and copious amounts of water.
Inhalation	Remove from source of exposure. Seek medical attention if needed or if signs of toxicity occur.
Ingestion	Remove from source of exposure. Seek medical attention if needed or if signs of toxicity occur.
Effect and Treatment of Overdosage	Too rapid injection may produce lowering of blood pressure and cardiac syncope. Persistent hypercalcemia from overdosage of calcium is unlikely because of rapid excretion. In the event of untoward effects from excessive calcium administration, the drug should be discontinued promptly, the patient should be re-evaluated and appropriate countermeasures instituted, if necessary.

SECTION V. FIRE-FIGHTING MEASURES		
Extinguishing Media		Water, carbon dioxide, dry chemical or foam.
Special Fire-Fighting Precautions		No special precautions determined for this product.
Flammability		
Fire/Explosion Hazards		None anticipated for this aqueous product
Hazardous Combustion Products		Unknown
Flash Point		Unknown
Auto-Ignition Temperature		Not applicable
Flammable Limits	LEL	Not applicable
	UEL	Not applicable

SECTION VI. ACCIDENTAL RELEASE MEASURES	
Personal Precautions	Personnel involved in clean-up should wear appropriate personal protective equipment. Minimize exposure.
Environmental Precautions	Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.
Steps to be Taken if Released or Spilled	Absorb onto paper. Wash spill site with copious amounts of water.

Approved By/Date:

Stephen Campbell
7/23/19

SECTION VII. HANDLING AND STORAGE	
Handling	No special handling required under conditions of normal product use. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.
Storage	No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.

SECTION VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Exposure Limits	Not applicable
Personal Protective Equipment (PPE)	
Eye Protection	Safety glasses with side shields. Use of goggles or full face protection may be required based on hazard, potential for contact, or level of exposure. Consult your site safety staff for guidance.
Skin Protection	Adequate skin protection recommended including gloves. Lab coats or additional precaution may be required based on procedure or level of exposure. Consult your site safety staff for guidance.
Respiratory Protection	Respiratory protection is not needed during normal product use.
Engineering Controls	The health hazard risks of handling this material are dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. Exposure controls for normal operating or routine procedures follow a tiered strategy. Engineering controls are the preferred means of long-term or permanent exposure control. If engineering controls are not feasible, appropriate use of personal protective equipment (PPE) may be considered as alternative control measures. Exposure controls for non-routine operations must be evaluated and addressed as part of the site-specific risk assessment.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance and Odor	Clear, slightly yellow, odorless solution
Physical State	Liquid
pH	6.3 (5.5 to 7.5)
Molecular Weight	Unknown
Melting Point(°C)	Unknown
Freezing Point(°C)	Unknown
Boiling Point(°C)	Unknown
Evaporation Rate	Water solvent will slowly evaporate
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Calcium chloride is freely soluble in water
Partition coefficient	Unknown

Approved By/Date:
Stephen Campbell
7/23/14

Decomposition Temperature	Unknown
Viscosity	Viscous
Flammability	See **Section V: Fire Fighting Measures** for flammability/explosivity information.

SECTION X. STABILITY AND REACTIVITY

Stability/Reactivity	Stable under ordinary conditions of use and storage prior to expiration
Hazardous Reactions	Not determined.
Incompatibilities/ Conditions to Avoid	Because of the danger involved in the simultaneous use of calcium salts and drugs of the digitalis group, a digitalized patient should not receive an intravenous injection of a calcium compound unless the indications are clearly defined. Calcium salts should not generally be mixed with carbonates, phosphates, sulfates or tartrates in parenteral admixtures. Avoid storing in temperature outside of 15°C to 30°C (59°F to 86°F).
Hazardous Decomposition Products	Unknown
Hazardous Polymerization	Not anticipated to occur with this product.

SECTION XI. TOXICOLOGICAL INFORMATION

The data presented below is for this product or for a structurally similar product.

Acute Toxicity

Test Type	Route of Administration	Value	Units	Species
LD_{50}	Oral	4.0	g/kg	rats

Repeat Dose Toxicity Data

Subchronic/Chronic Toxicity	This product contains aluminum that may be toxic. Research indicates that patients with impaired kidney function, including premature neonates, who receive parenteral levels of aluminum at greater than 4 to 5 mcg/kg/day accumulate aluminum at levels associated with central nervous system and bone toxicity. Tissue loading may occur at even lower rates of administration.
Reproductive/ Developmental Toxicity	Pregnancy Category C: Animal reproduction studies have not been conducted with calcium chloride. It also is not known whether calcium chloride can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Calcium chloride should be given to a pregnant woman only if clearly needed.
Mutagenicity/ Genotoxicity	Studies with solutions in polypropylene syringes have not been performed to evaluate the mutagenic potential or effects on fertility
Carcinogenicity	Studies with solutions in polypropylene syringes have not been performed to evaluate carcinogenic potential of this product.

SECTION XII. ECOLOGICAL INFORMATION

Ecotoxicity Data	Not determined for this product
Environmental Data	Not determined for this product

SECTION XIII. DISPOSAL CONSIDERATIONS

Method of Disposal	Approved chemical waste incineration or approved aqueous discharge to municipal or on-site wastewater treatment systems.

Approved By/Date:
Stephen Campbell
7/23/14

Container Handling and Disposal	Dispose of container and unused contents in accordance with federal, state and local regulations.
SECTION XIV. TRANSPORT INFORMATION	
This material is not subject to the transportation regulation of USDOT, EUADR, IATA or IMDG/IMO	
SECTION XV. REGULATORY INFORMATION	
US State Regulations	Check state requirements for ingredient listing.
RCRA Status	Not listed
U.S. OSHA Classification	Target Organ Toxin Possible Irritant
TSCA Listing	Not listed
GHS Classification	Not available
Symbol	
Response	See First Aid measures **(Section IV)**
SECTION XVI. OTHER INFORMATION	
Pharmaceutical Use	This product is Rx Only. Please follow instructions in the package insert.
Abbreviations	
ADR	Agreement on Dangerous Goods by Road
CAS	Chemical Abstracts Service Number
DOT	US Department of Transportation Regulations
IATA	International Air Transport Association
IMO	International Maritime Organization
LD50	Dosage producing 50% mortality
LEL	Lower Exposure Limit
OSHA PEL	US Occupational Safety and Health Administration – Permissible Exposure Limit
RCRA	US EPA, Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
TSCA	Toxic Substance Control Act
UEL	Upper Exposure Limit
Hazard Symbols	
	Irritant
Revision Date	07/10/14
Supersedes Date	09/18/12

Approved By/Date: Stephen Campbell 7/23/14

Rx Only. Refer to package insert for additional information.

The information contained herein is believed to be complete and accurate. However, it is the user's responsibility to determine the suitability of the information for their particular purpose. The company assumes no additional liability or responsibility resulting from the usage of, or reliance on this information.

Approved By/Date:
Stephen Campbell
7/23/14