

MATERIAL SAFETY DATA SHEET

Caffeine Citrate Injection 20mg/mL

Revision Date: 10-01-2007

SECTION 1: PRODUCT IDENTIFICATION

| | |
|-------------------------------|---|
| Product Name | Caffeine Citrate Injection 20mg/mL, 3mL vial |
| Common Name/Trade Name | Caffeine Citrate Injection 20mg/mL, 3mL vial |
| Synonyms | NA |
| Chemical Name | 1,3,7-trimethylxanthine citrate |
| Chemical Family | Purine Alkaloid, Diuretic, Central Nervous System Stimulant |
| Chemical Formula | C ₁₄ H ₁₈ N ₄ O ₉ |

SECTION 2: HAZARDOUS INGREDIENTS

| CHEMICAL NAME | CAS# | % | OSHA PEL | ACGIH TLV | IDLH |
|---------------------|---------|----|----------|-----------|------|
| Caffeine, anhydrous | 58-08-2 | 1% | NA | NA | NA |
| | | | | | |
| | | | | | |
| | | | | | |

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute and Chronic Health Effects

EFFECTS OF OVER EXPOSURE: Signs and symptoms reported in the literature in preterm infants, fever, tachypnea, jitteriness, fine tremor of the extremities, hypertonia, opisthotonos, tonic-clonic movements, nonpurposeful jaw and lip movements, vomiting, hyperglycemia, elevated blood urea nitrogen, and elevated total leukocyte concentration.

SECTION 4: FIRST AID MEASURES

MATERIAL SAFETY DATA SHEET

Caffeine Citrate Oral Solution 20 mg/mL

Revision Date: 10-01-2007

SECTION 1: PRODUCT IDENTIFICATION

| | |
|-------------------------------|---|
| Product Name | Caffeine Citrate Oral Solution 20mg/mL, 3mL vial |
| Common Name/Trade Name | Caffeine Citrate Oral Solution 20mg/mL, 3mL vial |
| Synonyms | NA |
| Chemical Name | 1,3,7-trimethylxanthine citrate |
| Chemical Family | Purine Alkaloid, Diuretic, Central Nervous System Stimulant |
| Chemical Formula | C ₁₄ H ₁₈ N ₄ O ₉ |

SECTION 2: HAZARDOUS INGREDIENTS

| CHEMICAL NAME | CAS# | % | OSHA PEL | ACGIH TLV | IDLH |
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| Caffeine, anhydrous | 58-08-2 | 1% | NA | NA | NA |
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SECTION 3: HAZARDS IDENTIFICATION

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EFFECTS OF OVER EXPOSURE: Signs and symptoms reported in the literature in preterm infants, fever, tachypnea, jitteriness, fine tremor of the extremities, hypertonia, opisthotonos, tonic-clonic movements, nonpurposeful jaw and lip movements, vomiting, hyperglycemia, elevated blood urea nitrogen, and elevated total leukocyte concentration.

SECTION 4: FIRST AID MEASURES

| | |
|----------------------|--|
| Skin Exposure | Flush with water. |
| Eye Exposure | Flush immediately with copious amounts of water for at least 15 minutes. Obtain emergency medical treatment. |
| Inhalation | Remove to a well ventilated area. |
| Ingestion | Obtain emergency medical treatment. |

SECTION 5: FIRE / EXPLOSION HAZARDS & FIREFIGHTING MEASURES

| | |
|--|---|
| Flammability of the Product | NA |
| Auto-ignition Temperature | NA |
| Flash Points | NA |
| Flammable Limits (in air by volume, %) | Lower: NA Upper: NA |
| Fire Extinguishing Equipment | Use extinguishing agent suitable for type of surrounding fire. Water Spray: OK Foam: OK Carbon Dioxide: OK Dry Chemical: OK |
| Unusual Fire and Explosion Hazards | None |
| Explosion Hazards in presence of Various substances | NA |
| Firefighting Procedures | No special procedures identified |

SECTION 6: SPILL AND LEAK PROCEDURES

| | |
|---------------|--|
| Spills | Clean area. Dispose in accordance with all applicable regulations. |
|---------------|--|

SECTION 7: HANDLING AND STORAGE

| | |
|-----------------------------------|---|
| Work and Hygiene Practices | As with all chemicals, avoid getting this product ON YOU or IN YOU. Do not eat, drink or smoke or apply cosmetics while handling the product. Wash hands thoroughly after handling. |
|-----------------------------------|---|

Storage and Handling PracticesKeep out of reach of children. Store at controlled room temperature between 20° – 25° C (68°-77° F)

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering Controls**Under normal conditions of use, no special controls are required.

Personal Protection**Respiratory Protection**No special requirements.

Eye ProtectionNo special requirements.

Hand ProtectionNo special requirements.

Body ProtectionNo special requirements.

SECTION 9: PHYSICAL / CHEMICAL PROPERTIES**Physical state and appearance**Clear, colorless solution

Molecular WeightNA

Boiling PointNA

Vapor Density (AIR=1)NA

Vapor Pressure (mm Hg)NA

Melting/Freezing PointNA

pHNA

Water SolubilitySoluble

Specific Gravity (Water =1)NA

Water ReactivityNA

VolatilityNA

OdorNA

SECTION 10: STABILITY AND REACTIVITY

| | |
|----------------------------------|--------------------------|
| Stability | This product is stable. |
| Incompatible Temperature | NA |
| Incompatible Materials | NA |
| Conditions of Instability | NA |
| Hazardous Polymerization | Will not occur |
| Hazardous Decomposition | NA |
| Conditions to Avoid | None known at this time. |

SECTION 11: TOXICOLOGICAL INFORMATION

| | |
|-------------------------------|----|
| Toxicity | NA |
| Suspected Cancer Agent | No |

SECTION 12: ECOLOGICAL INFORMATION

| | |
|-----------------------------------|----|
| Environmental Stability | NA |
| Ecotoxicity | NA |
| Products of Biodegradation | NA |
| Special Remarks | NA |

SECTION 13: WASTE DISPOSAL

Dispose of material according to local, state, federal and environmental disposal regulations or company operating procedures.

SECTION 14: TRANSPORTATION INFORMATION

| | |
|------------------------------|----|
| DOT classification | NA |
| Identification | NA |
| DOT Label(s) Required | NA |

SECTION 15: REGULATORY INFORMATION

| | |
|---------------------------------------|----|
| US SARA Reporting Requirements | NA |
| Federal and State Regulations | NA |

SECTION 16: OTHER INFORMATION

DEFINITIONS OF ABBREVIATIONS USED:

| | |
|------------------------|---|
| ACGIH | American Conference of Governmental Industry Hygienists |
| CAS | Chemical Abstract Service |
| IARC | International Agency for Research on Cancer |
| IDLH | Immediately Dangerous to Life or Health Level |
| LC₅₀ | Medial Lethal Concentration |
| LD₅₀ | Medial Lethal Dose |
| MSHA | Mine Safety and Health Administration |
| NA | Not Available |
| ND | No Data |
| NE | Not Established |
| NIOSH | National Institute for Occupational Safety and Health |
| NTP | National Toxicology Program |
| OSHA | Occupational Safety and Health Administration |
| PEL | Permissible Exposure Limit |
| SARA | Superfund Amendments and Reauthorization Act |
| STEL | Short Term Exposure Limit |
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |

SECTION 17: DISCLAIMER

The information contained in this Material Safety Data Sheet has been compiled from reliable sources and is believed to be correct as of the date issued. It is the responsibility of the user to determine the appropriateness and applicability to their situation. Paddock Laboratories, Inc. disclaims any expressed or implied warranty as to the accuracy of the above information and shall not be held liable for any direct, incidental, or consequential damages from use or reliance on the above information.

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| Flammability of the Product | NA |
| Auto-ignition Temperature | NA |
| Flash Points | NA |
| Flammable Limits (in air by volume, %) | Lower: NA Upper: NA |
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cosmetics while handling the product. Wash hands thoroughly after handling.

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No special requirements.

Eye Protection

No special requirements.

Hand Protection

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No special requirements.

SECTION 9: PHYSICAL / CHEMICAL PROPERTIES

Physical state and appearance

Clear, colorless solution

Molecular Weight

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Boiling Point

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Vapor Density (AIR=1)

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Vapor Pressure (mm Hg)

NA

Melting/Freezing Point

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pH

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Water Solubility

Soluble

Specific Gravity (Water =1)

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Water Reactivity

NA

Volatility

NA

Odor

NA

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| Stability | This product is stable. |
| Incompatible Temperature | NA |
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| Conditions of Instability | NA |
| Hazardous Polymerization | Will not occur |
| Hazardous Decomposition | NA |
| Conditions to Avoid | None known at this time. |

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| Toxicity | NA |
| Suspected Cancer Agent | No |

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| Ecotoxicity | NA |
| Products of Biodegradation | NA |
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| Federal and State Regulations | NA |

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| MSHA | Mine Safety and Health Administration |
| NA | Not Available |
| ND | No Data |
| NE | Not Established |
| NIOSH | National Institute for Occupational Safety and Health |
| NTP | National Toxicology Program |
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