


<b>Lab Alley LLC</b> 22111 Highway 71 West, Suite 601, Spicewood, Texas 78669 Tel.: 512-668-9918		1 of 15
DEPARTMENT : QUALITY ASSURANCE		
<b>SAFETY DATA SHEET</b>		
PRODUCT NAME : CAFFEINE (ANHYDROUS)		
SDS No : SDS / FP / 01	Effective Date: 04/05/2015	
Revision No:00		

### SAFETY DATA SHEET

#### SECTION 1 – IDENTIFICATION

<b>Product Name:</b>	CAFFEINE
<b>Synonyms:</b>	1,3,7-trimethylxanthine, 1,3,7-Trimethylpurine-2,6-dione
<b>Product Code(s):</b>	CB
<b>Recommended Use:</b>	Central nervous system stimulant used in beverages and medicine (cardio-vascular and psychostimulant analeptic). Administered in powder or tablets in doses of 100 to 300 mg. Frequently included in analgesic preparations with aspirin or codeine. Use in soft drinks not to exceed 0.02%.
<b>Restrictions:</b>	--
<b>Company:</b>	Lab Alley LLC
<b>Telephone Number:</b>	800-535-5053

#### SECTION 2 – HAZARD(S) IDENTIFICATION

<b>Classifications:</b>	Acute Toxicity (Oral) Category 4
<b>Signal Word:</b>	<b>WARNING</b>
<b>Pictograms:</b>	
<b>Hazard Statements:</b>	Harmful if swallowed
<b>Precautionary Statements:</b>	Wash all exposed external body areas thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell. Rinse mouth.
<b>Unclassified/Other Hazards:</b>	Not available
<b>Storage:</b>	Store in well closed container.

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<b>Disposal:</b>	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Percent by Weight
Caffeine	58-08-2	>99

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Yes

N/A

### SECTION 4 – FIRST AID MEASURES

<b>Eye Contact:</b>	<p>If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p>
<b>Ingestion</b>	<p>IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.</p>

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	<p>If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.</p> <p>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:</p> <p>INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</p> <p>NOTE: Wear a protective glove when inducing vomiting by mechanical means.</p>
<b>Inhalation:</b>	<p>If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.</p> <p>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</p> <p>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</p> <p>Transport to hospital, or doctor.</p>
<b>Skin Contact:</b>	<p>If skin or hair contact occurs:</p> <p>Flush skin and hair with running water (and soap if available).</p> <p>Seek medical attention in event of irritation.</p>
<b>Note to Physician:</b>	<p>Treat symptomatically:</p> <p>For caffeine intoxication:</p> <p>If caffeine has been injected within 4 hours in amount over 15mg/kg, removal from stomach by Ipecac syrup or gastric lavage is recommended. Activated charcoal is probably useful within first 4 hour. Magnesium sulphate cathartic may be useful.</p>

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## SECTION 5 – FIRE FIGHTING MEASURES

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<b>Extinguishing Media:</b>	Foam. Dry chemical powder.
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	BCF (where regulations permit). Carbon dioxide.
<b>Specific Hazards During Fire Fighting:</b>	<p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>Wear full body protective clothing with breathing apparatus.</p> <p>Prevent, by any means available, spillage from entering drains or water course.</p> <p>Use fire fighting procedures suitable for surrounding area.</p>
<b>Protective Equipment/Precautions for Fire-Fighters:</b>	<p>Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</p> <p>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</p> <p>Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will</p>

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	generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
<b>Additional Information:</b>	Not available

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#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions, Protective Equipment and Emergency Procedures:</b>	Clean up waste regularly and abnormal spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course.
<b>Environmental Precautions:</b>	Prevent, by any means available, spillage from entering drains or water course
<b>Clean Up/Containment Methods:</b>	Clear area of personnel and move upwind.

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#### SECTION 7 – HANDLING & STORAGE

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<b>Precautions for Safe Handling:</b>	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
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<b>Conditions for Safe Storage:</b>	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.
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## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Data not available

List	Components	CAS No.	Type	Value
01	caffeine	58-08-2	--	Not available

### Personal Protection

<b>Engineering Measures:</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Eye/Face Protection:</b>	Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.
<b>Hand Protection:</b>	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

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<b>Respiratory Protection:</b>	Splash goggles, Lab coat, Dust respirator, Be sure to use an approved/certified respirator or equivalent Gloves. For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
<b>Skin and Body Protection:</b>	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
<b>Work/Hygiene Practices:</b>	Wear impervious protective clothing, including boots, gloves, nose mask, lab coat, apron or coveralls, as appropriate.

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## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

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<b>Appearance:</b> <b>Physical State:</b> <b>Form:</b>	White crystalline powder. Odourless with a bitter taste. Slightly soluble in water and alcohol. Soluble in chloroform.
<b>Odor:</b>	Odourless.
<b>Odor Threshold:</b>	Not available
<b>pH:</b>	6.9 [Neutral.]
<b>Melting Point/Freezing Point:</b>	238°C (460.4°F)
<b>Initial Boiling Point &amp; Boiling Range:</b>	Not available
<b>Flash Point:</b>	Not available
<b>Boiling Point:</b>	178°C (352F) (sublimes)
<b>Evaporation Rate:</b>	Not available

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<b>Flammability (solid, gas):</b>	Not available
<b>Upper/ Lower Explosive Limit</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Relative Density:</b>	1.23
<b>Solubility(ies):</b>	Soluble in hot water, soluble in chloroform.
<b>Partition Coefficient (n-octanol/water):</b>	Not available
<b>Auto-Ignition Temperature:</b>	925°C
<b>Decomposition Temperature:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Other Information:</b>	Not available

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#### SECTION 10 – STABILITY & REACTIVITY

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<b>Reactivity:</b>	Not available
<b>Chemical Stability:</b>	The product is stable.
<b>Hazardous Reactions:</b>	Not available
<b>Conditions to Avoid:</b>	# Avoid strong acid & bases. # Avoid the reaction with oxidizing agents.
<b>Incompatible Materials:</b>	Not available
<b>Decomposition Products:</b>	Not available

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#### SECTION 11 – TOXICOLOGICAL INFORMATION

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<b>Likely Exposure Routes: Symptoms of Exposure: Effects of Exposure:</b>	<b>Inhaled</b> The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of dusts, or fumes,
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	<p>especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.</p> <p>Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.</p> <p><b>Ingestion</b></p> <p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Xanthine derivatives may produce nausea, vomiting, anorexia, gastric pain, haematemesis, diarrhoea, and increased levels of SGOT. Proteinuria, diuresis, and increased excretion of renal tubular cells and red blood cells may also occur. Respiratory effects may include tachypnoea and arrest.</p> <p><b>Skin Contact</b></p> <p>Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational</p>
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	<p>setting.          Open cuts, abraded or irritated skin should not be exposed to this material          Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.</p> <p><b>Eye</b>          Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.</p> <p><b>Chronic</b>          On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.          Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.          Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness.</p>
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<b>Numerical Measures of Toxicity:</b>	<b>TOXICITY</b> dermal (rat) LD50: >2000 mg/kg[1] Oral (rat) LD50: 192 mg/kg[2]
<b>Carcinogenicity:</b>	The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. Oral (woman) TDLo: 96 mg/kg/1d-I Tumorigenic - Carcinogenic by RTECS criteria.

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## SECTION 12 – ECOLOGICAL INFORMATION

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<b>Bioaccumulation:</b>	LOW (LogKOW = -0.07)
<b>Ecological Toxicity:</b>	Not available
<b>Mobility in Soil:</b>	LOW (KOC = 10)
<b>Persistence and Degradability:</b>	HIGH
<b>Other Adverse Effects:</b>	Not available

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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### Waste treatment methods :

### Product / Packaging/Disposal

Containers may still present a chemical hazard/ danger when empty.

Return to supplier for reuse/ recycling if possible.

Otherwise:

If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then

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puncture containers, to prevent re-use, and bury at an authorised landfill.  
Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

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## SECTION 14 – TRANSPORT INFORMATION

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### Labels Required

		
<b>Marine Pollutant</b>	NO	
<b>Land transport (UN)</b>		
<b>UN number</b>	1544	
<b>Packing group</b>	III	
<b>UN proper shipping name</b>	ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S. (contains caffeine)	
<b>Environmental hazard</b>	No relevant data	
<b>Transport hazard class(es)</b>	Class	6.1
	Subrisk	Not Applicable
<b>Special precautions for user</b>	Special provisions	43;223;274
	Limited quantity	5 kg
<b>Air transport (ICAO-IATA / DGR)</b>		
<b>UN number</b>	1544	
<b>Packing group</b>	III	

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<b>UN proper shipping name</b>	Alkaloid salts, solid, n.o.s. *; Alkaloids, solid, n.o.s. * (contains caffeine)	
<b>Environmental hazard</b>	No relevant data	
<b>Transport hazard class(es)</b>	ICAO/IATA Class	6.1
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	6L
<b>Special precautions for user</b>	Special provisions	A3A5A6A801
	Cargo Only Packing Instructions	677
	Cargo Only Maximum Qty / Pack	200 kg
	Passenger and Cargo Packing Instructions	670
	Passenger and Cargo Maximum Qty / Pack	100 kg
	Passenger and Cargo Limited Quantity Packing Instructions	Y645
	Passenger and Cargo Limited Maximum Qty / Pack	10 kg
<b>Sea transport (IMDG-Code / GGVSee)</b>		
<b>UN number</b>	1544	
<b>Packing group</b>	III	
<b>UN proper shipping name</b>	ALKALOIDS, SOLID, N.O.S. or ALKALOIDS SALTS, SOLID, N.O.S. (contains caffeine)	
<b>Environmental</b>	Not Applicable	

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<b>hazard</b>		
<b>Transport hazard class(es)</b>	IMDG Class	6.1
	IMDG Subrisk	Not Applicable
<b>Special precautions for user</b>	EMS Number	F-A , S-A
	Special provisions	43 223 274
	Limited Quantities	5 kg

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## SECTION 15 – REGULATORY INFORMATION

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### Safety, health and environmental regulations / legislation specific for the substance or mixture

<b>caffeine(58-08-2) is found on the following regulatory lists</b>	"International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs"
<b>National Inventory</b>	<b>Status</b>
Australia - AICS	Y
Canada - DSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y

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Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	<i>Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)</i>

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## SECTION 16 – OTHER INFORMATION

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The information contained in this document is correct to the best of our knowledge and is based on current information at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. Lab Alley LLC makes no guarantees or warranty to the validity, accuracy, or currency and shall not be liable or responsible in any way for use of either this information or the materials described.