

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Caffeine, Anhydrous Powder
CAS No.: 58-08-2
Synonyms: 1,3,7-trimethylxanthine, 3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, Trimethyl-1,3,7-dioxo-2,6-purine

Supplier: Anderson Advanced Ingredients
 2030 Main Street, Suite 430
 Irvine, CA 92614
General Information: 949-502-4770 (Monday - Friday 7:00am - 5:00pm PST)
Emergency Number:

2. HAZARD IDENTIFICATION

OSHA Hazards: Target organ effect, toxic by ingestion, irritant

Target Organs: Central nervous system, heart

Signal Word: Danger

Hazard Statement: Toxic if swallowed

Pictograms:

GHS Classification

Combustible dust	Category 1
Acute toxicity, oral	Category 4
Acute aquatic toxicity	Category 3

GHS Label Elements, including precautionary statements

Hazard Statements:

H301	Toxic if swallowed
H302	May form combustible dust concentration in air

Precautionary Statements:

P301 / P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
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Potential Health Effects:

Eyes	Causes eye irritation
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through the skin. Causes skin irritation.
Ingestion	Toxic if swallowed

NFPA Ratings

Health	2
Flammability	0
Reactivity	0
Specific hazard	Not available

HMIS Ratings

Health	2
Fire	0
Reactivity	0
Personal	E

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS#/ELINCS#	Formula	Molecular Weight
Caffeine	100	58-08-2	200-362-1	C ₈ H ₁₀ N ₄ O ₂	194.19 g/mol

4. FIRST AID MEASURES

Eyes:	In case of eye contact, rinse with plenty of water and seek medical attention
Inhalation:	Move to fresh air, limit physical activities / exertion. If breathing becomes difficult, provide oxygen. If not breathing, provide artificial respiration. Seek medical attention
Skin:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash area using soap. Seek medical attention
Ingestion:	DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Seek medical attention immediately.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish fire. Use appropriate media for adjacent fire. Cool unopened containers with water
Special protective equipment:	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards:	Emits toxic fumes (carbon oxides, nitrogen oxides) under fire conditions. See "Stability and Reactivity" section.
Ingestion:	DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Seek medical attention immediately.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	See section 8 for recommendations on the use of personal protective equipment
Environmental precautions:	Prevent spillage from entering drains. Any release to the environment may be subject to federal, national and/or local reporting requirements.
Methods & materials for containment & cleaning up:	Pick up and arrange spill without creating dust. Sweep up & place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 "Exposure Controls & Personal Protection" for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (See section 10 "Stability & Reactivity" for any incompatible materials.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eyes:	Wear chemical safety glasses or goggles.
Inhalation:	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin:	Wear nitrile or facility-approved gloves, apron or lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc)	White powder
Odor	Odorless
Odor threshold	Not applicable
pH	No data available
Melting point / freezing point	234°C (453°F)
Initial boiling point and boiling range	Not applicable
Flash point	No data available
Evaporation rate	Not applicable
Flammability (solid, gas)	Not readily ignited
Upper/lower flammability or explosive limit	For solids, not relevant for classification & labeling
Vapor pressure	20 hPa (15mmHg) at 89°C (192°F)
Vapor density	No data available
Relative density	1.23 (water = 1)
Water solubility	18.7 g/l at 16°C (61°F)
Partition coefficient: n-octanol/water	log Pow: -0.091 at 23°C (73°F)
Auto-ignition temperature	No data available
Decomposition temperature:	No data available

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Hazardous reactions:	Will not occur.
Conditions to avoid:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition:	Carbon oxides, nitrogen oxides

11. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Acute Toxicity

Skin:	LD50 - Rat - > 2,000 mg/kg
Eyes:	No data available
Respiratory:	LC50 - Rat - 367 mg/kg
Ingestion:	LD50 - Rat - 192 mg/kg

Carcinogenicity

IARC:	3-Group 3: Not classifiable as to its carcinogenicity (caffeine)
ACGIH:	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.
OSHA:	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

Signs and Symptoms of Exposure

Skin:	Irritation
Eyes:	Irritation, redness, watering eyes
Respiratory:	Coughing, breathing difficulties
Ingestion:	Pain, dyspnea, cyanosis, shock, anxiety, palpitations, tremulousness, tachycardia, diereses, headache, diarrhea

Chronic Toxicity:	No data available	Teratogenicity:	No data available
Mutagenicity:	No data available	Embryotoxicity:	No data available
Specific target organ toxicity:	No data available		

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic vertebrate:	LC50 - Leuciscus idus - 87 mg/L - 96h
Aquatic invertebrate:	EC50 - Daphnia magna - 182 mg/L - 48h
Aquatic plants:	EC50 - Desmodemus subspicatus - > 100 mg/L - 72h
Terrestrial:	No data available

13. DISPOSAL CONSIDERATIONS

Waste residues:	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary, before disposing of waste residue.
Product containers:	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary, before disposing of waste residue.

14. TRANSPORTATION INFORMATION

USDOT:	UN 1544, Alkaloids, solid, n.o.s. (caffeine), 6.1, pg III
TDG:	UN 1544, ALKALOIDS, SOLID, N.O.S. (CAFFEINE), 6.1, PG III
IMDG:	UN 1544, ALKALOIDS, SOLID, N.O.S. (CAFFEINE), 6.1, PG III
Marine Pollutant:	No
IATA / ICAO:	UN 1544, Alkaloids, solid, n.o.s. (caffeine), 6.1, pg III

15. REGULATORY INFORMATION

TSCA inventory status:	All ingredients are listed on the TSCA inventory
DSCL (EEC)	All ingredients are listed on the DSCL inventory
California Proposition 65	Not listed
SARA 302	Not listed
SARA 304	Not listed
SARA 311	Caffeine - Acute health hazard, chronic health hazard
SARA 312	Caffeine - Acute health hazard, chronic health hazard
SARA 313	Not listed
WHIMS	

16. OTHER INFORMATION

Creation Date: 01 January 2019

DISCLAIMER: 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 a guidance for safe handling, use, processing, storage, transportations, 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 use in combination with any other materials or in any process, unless specified in the text.