



## SAFETY DATA SHEET

### Section 1: Identification

**Product Name:** Caffeine Anhydrous

**Synonym:** 1,3,7-Trimethylxanthine

**Synonym:** 3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione

**Synonym:** Methyltheobromine

**Company:** Arndale Ingredients

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### Section 2: Hazard(s) Identification

**Hazard Classification:** Classification in accordance with Regulation (EC) No 1272/2008(CLP)

Acute Tox. 4\*; H302

**Signal Word(s):** Warning

**Hazard Statements:** H302 Harmful if swallowed

**Pictograms:**



**Precautionary Statements:**

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.

P330 Rinse mouth

**Description of other hazards:**

Adverse human health effects: Nervous system disorders. Affects central nervous system. Nervousness.

Restlessness. Psychiatric disorders. Exposure may produce an allergic reaction. May produce irregular heart beat and nervous symptoms. Reduced blood pressure. Blurred vision. Headache. Weakness. Gastrointestinal disorders.

**Potential Health effects: -**

**Eye:** Dust may cause mechanical irritation.

**Skin:** May cause skin irritation. Low hazard for usual industrial handling.

**Ingestion:** Harmful if swallowed, may cause gastrointestinal irritation with nausea, vomiting and diarrhea. Can cause death.

**Inhalation:** May cause respiratory tract irritation, may cause effects similar to those described for ingestion.

**Chronic:** May cause cancer according to animal studies. May cause digestive tract and cardiac disturbances. May cause reproductive and fetal effects.



## Section 3: Composition/ Information on Ingredients

**Molecular formula:** C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>

**Mr:** 194.2

**CAS No.:** 58-08-2

**EC No:** 200-362-1

**Classification:** Xn; R22

**Synonyms:**

CAFFEINE ANHYDROUS,

Methyltheobromine,

3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione,

1,3,7-Trimethylxanthine

## Section 4: First-Aid Measures

**After skin contact:** May cause skin irritation. Low hazard for usual industrial handling.

**After eye contact:** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking, tears or redness persist.

**After inhalation:** May cause respiratory tract irritation, may cause effects similar to those described for ingestion.

**After swallowing:** Harmful if swallowed, may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**In case of reactions described in hazards identification or other severe, immediate or persisting symptoms seek medical advice. Show the label and this safety data sheet.**

## Section 5: Fire-Fighting Measures

**Suitable extinguishing agents:** Water spray, Carbon dioxide, Dry powder.

**Unsuitable extinguishing agents:** Do not use a heavy water stream.

**Special protective equipment for firefighters:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Surrounding fires:** Use water spray or fog for cooling exposed containers.

**Hazardous combustion products:** Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases.

## Section 6: Accidental Release Measures

**General precautions:** Remove ignition sources. Evacuate area.

**Personal precautions:** Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

**Measures for cleaning/collecting:** Clean spills promptly. To clean the floor and all objects contaminated by this material, use sodium hypochlorite solution. Ensure adequate ventilation.

## Section 7: Handling and Storage

**Personal protection:** Avoid all unnecessary exposure. Ensure prompt removal from eyes, skin and clothing.

**Technical protective measures:** Material should be handled in a laboratory hood whenever possible.

**Handling:** Handle in accordance with good industrial hygiene and safety procedures.

**Storage:** Caffeine is not intended for long-term storage. Keep container tightly closed in a natural temperature, well ventilated place. Keep away from: All heat sources, including direct sunlight. Open flame. Sources of ignition. Sparks. Incompatible materials, see §10.



## Section 8: Exposure Controls/Personal Protection

**Personal protection:** -

- **Respiratory protection:** Wear approved mask. In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection:** Wear suitable gloves resistant to chemical penetration.
- **Skin protection:** Wear suitable protective clothing.
- **Eye protection:** Chemical goggles or safety glasses.

**Industrial hygiene:** - Provide local exhaust or general room ventilation. Material should be handled in a laboratory hood whenever possible.

## Section 9: Physical and Chemical Properties

For this information, please, refer directly to the Certificate of Analysis OR Specifications

## Section 10: Stability and Reactivity

**Specific Concentration Limit(s):** Not available.

**Stability and reactivity:** Stable under normal conditions.

**Materials to avoid:** Oxidizing agent.

**Conditions to avoid:** Heat. Light.

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. Nitrogen oxides.

When heated to decomposition, emits dangerous fumes.

**Hazardous reactions:** None under normal conditions.

**Hazardous polymerization:** Will not occur.

## Section 11: Toxicological Information

**RTECS nr:** EV6475000 (See actual entry in RTECS for complete information.)

**Rat oral LD50 [mg/kg]:** 469.9

**Rabbit dermal LD50 [mg/kg]:** No data available.

**Rat inhalation LC50 [mg/L/4h]:** No data available.

**Acute toxicity:** Nervous system disorders. Affects nervous system. Nervousness.

Restlessness. Psychiatric disorders. No data available. May produce irregular heart beat and nervous symptoms. Reduced blood pressure. Gastrointestinal disorders. Weakness. Headache. Blurred vision.

**Chronic toxicity:** No data available.

**Sensitization:** No data available.

## Section 12: Ecological Information (non-mandatory)

**Ecological effects information:** May be toxic to aquatic life.

**LC50-96 Hour - fish [mg/L]:** 87

**EC50-48 Hour-Daphnia magna [mg/L]:** 182

**IC50-72h-Algae [mg/L]:** >100

**Biodegradation [%]:** Biodegradable.

**Persistence - degradability:** No data available.

**Log P octanol / water at 20°C:** -0.070

**Bioaccumulative potential:** Weak.

## Section 13: Disposal Considerations (non-mandatory)

Dispose of this material and its container at hazardous or special waste collection point.

Dispose in a safe manner in accordance with local/national regulations.



## Section 14: Transport Information (non-mandatory)

### Land Transport:

- **Proper shipping name:** ALKALOIDS, SOLID, N.O.S. / ALKALOID SALTS, SOLID, N.O.S.
- **UN No.:** 1544
- **ADR/RID Class:** 6.1
- **ADR Packing Group:** III

### Air transport:

- **Proper shipping name:** ALKALOIDS, SOLID, N.O.S. / ALKALOID SALTS, SOLID, N.O.S.
- **UN No.:** 1544
- **ICAO/IATA Class:** 6.1
- **IATA Packing Group:** III

## Section 15: Regulatory Information (non-mandatory)

**Symbol(s):** Xn: Harmful

**Risk Phrases:** R22: Harmful if swallowed

### Safety Phrases:

S22: Do not breath dust

S36/37: Wear suitable protective clothing and gloves.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

## Section 16: Other Information

**SDS date of preparation/update:** 02/2020

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.