



**HEBEI GUANGXIANG PHARMACEUTICAL CO., LTD.**  
The east of the Jingliu Road, Lingang West Economic and Technological Development Zone,  
Cangzhou City, Hebei Province.

June 1<sup>st</sup>, 2020

QA Department of

HEBEI GUANGXIANG PHARMACEUTICAL CO., LTD.



## Safety Data Sheet

### Caffeine

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#### Section 1 - Chemical Product and Company Identification

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##### 1.1 Product Name: Caffeine

**CAS#:** 58-08-2

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

**Chemical Formula:** C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>

##### 1.2 Relevant identified uses of the substance or mixture and uses advised against:

**Relevant identified uses:** For research use only, not for human or veterinary use.

##### 1.3 Details of the Supplier of the Safety Data Sheet:

**Company Name:** Hebei Guangxiang Pharmaceutical Co., Ltd.

**Address:** East of Jingliu Road, Lingang Chemical Industrial Park, Cangzhou City, Hebei Province.

**Tel:** 86- 317-5603098

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#### Section 2 - Hazards Identification

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##### 2.1 Classification of the Substance or Mixture:

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302

##### 2.2 Label Elements:



**GHS Signal Word:** Warning

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**GHS Hazard Phrases:**

H302 Harmful if swallowed.

**Precautionary statement(s)**

P264 Wash skin thoroughly after handling.

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

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/ container to an approved waste disposal plant.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – none**

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**Section 3 - Composition and Information on Ingredients**

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Name	CAS #	Concentration	EC No.	Chemical characterization
Caffeine	58-08-2	100%	200-362-1	Substance

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**Section 4 - First Aid Measures**

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**4.1 Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

no data available

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## **Section 5 - Fire Fighting Measures**

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### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

no data available

### **5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **5.4 Further information**

no data available

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## **Section 6 - Accidental Release Measures**

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### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13

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## **Section 7 - Handling and Storage**

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### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **Section 8 - Exposure Controls and Personal Protection**

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## 8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved

under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level

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protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

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## Section 9 - Physical and Chemical Properties

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### 9.1 Information on Basic Physical and Chemical Properties

a) Appearance	Form: powder Colour: white
b) Odour	odourless
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 234-239°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	20 hPa (15 mmHg) at 89 °C (192 °F)
l) Vapour density	no data available
m) Relative density	1.230 g/cm <sup>3</sup> at 18 °C (64 °F)
n) Water solubility	18.7 g/l at 16 °C (61 °F)
o) Partition coefficient: n-octanol/water	log Pow: -0.091 at 23 °C (73 °F)
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

### 9.2 Other safety information

Bulk density	220 kg/m <sup>3</sup>
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Dissociation constant

10.4 at 40 °C (104 °F)

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## Section 10 - Stability and Reactivity

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**10.1 Reactivity:** No data available.

**10.2 Stability:** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

Other decomposition products - no data available

In the event of fire: see section 5

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## Section 11 - Toxicological Information

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**Information on toxicological effects**

**Acute toxicity:**

LD50 Oral - rat - male and female - 367.7 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - rat - male and female - 4.94 mg/l (Calculation method)

LD50 Dermal - rat - male and female - > 2,000 mg/kg

no data available

**Skin corrosion/irritation**

Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - rabbit

Result: No eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitisation**

- mouse

Result: Did not cause sensitisation on laboratory animals.

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**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: EV6475000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence

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**Section 12 - Ecological Information**

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**12.1 Toxicity**

Toxicity to fish                      No data available.

Toxicity to daphnia and              No data available.  
other aquatic  
invertebrates

Toxicity to algae                      No data available.

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects**

no data available

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**Section 13 - Disposal Considerations**

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**13.1 Waste treatment methods****Product**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner

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and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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## Section 14 - Transport Information

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### 14.1 LAND TRANSPORT

#### Land transport

-Shipping Name: ALKALOIDS, SOLID, N.O.S. (Caffeine)

-UN No.: Not applicable

-ADR/RID class: Not applicable

ADR/RID Packing group: Not applicable

-\*ADR Labelling: Not applicable

#### Maritime transport

-Shipping Name: ALKALOIDS, SOLID, N.O.S. (Caffeine)

-UN No.: Not applicable

-IMDG Class: Not applicable

- IMDG Packing group: Not applicable

- \*IMDG Labelling: Not applicable

#### Air transport

- Shipping Name: ALKALOIDS, SOLID, N.O.S. (Caffeine)

- UN No.: Not applicable

- IATA Class or division: Not applicable

IATA Packing group: Not applicable

- \*IATA Labelling: Not applicable

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## Section 15 - Regulatory Information

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**General Information**            No data Available

**Poisons(Aust)**                 No Scheduled

### Environmental Protection Authority (New Zealand)

Hazardous Substance and New Organisms Amendment Act 2015

**Approval Code**                 HSR002578

### National/Regional Inventories

**Australia(AICS)**                 Listed

**Canada(DSL)**                    Not Determined

**Canada(NDSL)**                   Not Determined



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<b>China(IECSC)</b>	Not determined
<b>Europe(EINECS)</b>	200-362-1
<b>Europe(REACH)</b>	Not determined
<b>Japan(ENCS/METI)</b>	Not determined
<b>Korea(KECI)</b>	Not determined
<b>Malaysia(EHS Register)</b>	Not determined
<b>New Zealand(NZLoC)</b>	Listed
<b>Philippines(PICCS)</b>	Not determined
<b>Switzerland(Giftliste 1)</b>	Not determined
<b>Switzerland(Inventory of Notified substances)</b>	Not determined
<b>Taiwan(NCSR)</b>	Not determined
<b>USA(TSCA)</b>	Not determined

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### **Section 16 - Other Information**

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No data available.

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.  
IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

Please read all labels carefully before using product.