# Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

## Section 1: Identification

**Product Name** Metformin Hydrochloride USP
**Commercial Name** Diabefagos; Gliformin; Glucophage; Haurymellin; Meguan
**Product Use** Not available
**Restrictions On Use** Not available

**Product Code** 30-4400

**Company**
PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
**CHEMTREC (24hr) 1-800-424-9300**

## Section 2: Hazard(s) Identification

**OSHA Haz Com: CFR 1910.1200** Acute toxicity, oral Category 4 Serious eye damage/eye irritation Category 2B

**Signal Word** WARNING

**Hazard Statement(s)** Harmful if swallowed. Causes eye irritation.

**Pictogram(s) or Symbol(s)**

**Precautionary Statement(s):**

**Prevention** Wash thoroughly after handling.

**Response** If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Storage** Not available

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

## Section 3: Composition/Information on Ingredients

**Substance/Mixture** Substance
**Components** Metformin Hydrochloride USP
**% By Weight** 100
**CAS#** 1115-70-4
**Molecular Weight** 165.62
**Chemical Formula** C4H11N5.HCl
**Synonym(s)** Dimethylbiguanide hydrochloride; Imidodicarbonimidic diamide, N,N-dimethyl-, monohydrochloride; N,N-Dimethylbiguanide hydrochloride

**Mixtures**

| Name | CAS# | % by Weight | TLV/PEL | LC50/LD50 |
|---|---|---|---|---|
| Metformin Hydrochloride USP | 1115-70-4 | 100 | Not available | Not available |

PCCA

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## Section 4: First-Aid Measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin Contact** Rinse skin with water/shower. Get medical attention if irritation develops and persists.

**Eye Contact** Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

**Symptoms/Effects**

**Acute** Pharmacologically active material. Occupational exposure may cause physiological effects.

**Delayed** Pharmacologically active material. Occupational exposure may cause physiological effects.

**Immediate Medical Attention**

Provide general supportive measures and treat symptomatically.

## Section 5: Fire-Fighting Measures

**Suitable Extinguishing Media**

Water. Foam. Dry chemical or CO2. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable Extinguishing Media**

Not available.

**Products of Combustion**

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

**Firefighters Special Equipment and Precautions**

Wear suitable protective equipment. Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

## Section 6: Accidental Release Measures

Keep unnecessary personnel away. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate personal protective equipment. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination. Avoid discharge into drains, water courses or onto the ground.

## Section 7: Handling and Storage

Handling: As a general rule, when handling USP materials, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Combustible dust clouds may be created where operations produce fine material (dust). Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential. Storage: Store in tight container. This material should be handled and stored per label instructions to ensure product integrity.

## Section 8: Exposure Controls/Personal Protection

**Exposure Limits** TWA 0.8 mg/m3

**Engineering Controls** For laboratory operations, use local exhaust ventilation or a ventilated enclosure for high energy operations such as particle sizing. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred

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| **Personal Protection** | Eye/face protection: Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available. Skin protection Hand protection: Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent. Other: Train employees in proper gowning and degowning practices. Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors. Respiratory protection: Respirators are generally not required for laboratory operations. Use a tight-fitting full-face respirator with HEPA filters for spill cleanup. Choose respiratory protection appropriate to the task and the level of existing engineering controls. Thermal hazards: Wear appropriate thermal protective clothing, when necessary. General hygiene considerations: Handling practices in this SDS are recommendations for laboratory use of USP materials. |

## Section 9: Physical and Chemical Properties

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| **Appearance** | White. Off-white. powder. solid. |
| **Odor** | Practically odorless |
| **Odor Threshold** | Not available. |

| | | | |
|---|---|---|---|
| **Melting Point** | 424.4 - 428 °F (218 - 220 °C) | **pH** | 6.7 Solution: 1% |
| **Freezing Point** | Not available. | **Vapor Pressure** | 0.0005 kPa (77 °F (25 °C)) |
| **Boiling Point/Range** | Not available. | **Vapor Density** | > 1 |
| **Decomposition temperature** | Not available. | **Viscosity** | Not available. |
| **Partition Coefficient: n-octanol/water** | -1.43 | **Evaporation Rate** | Not available. |
| **Flash Point** | Not available. | **Autoignition temperature** | Not available. |
| **Flammability** | Not available. | **Flammability or Explosive Limits:** | |
| | | **Lower** | Not available. |
| | | **Upper** | Not available. |

| | |
|---|---|
| **Solubility(ies)** | Freely soluble in water. Methylene chloride: Practically insoluble. Acetone: Practically insoluble. Alcohol: Slightly soluble. |
| **Other** | Chemical family Biguanide. Dust explosion properties Minimum ignition energy (MIE) - dust cloud > 500 mJ Molecular formula C4H11N5 . HCl Molecular weight 165.62 |

## Section 10: Stability and Reactivity

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|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical Stability** | Stable at normal conditions. |
| **Hazardous Polymerization** | No dangerous reaction known under conditions of normal use |
| **Conditions to Avoid** | Contact with incompatible materials |
| **Incompatible Materials** | Strong oxidizing agents. Alkalis. |
| **Hazardous Decomposition Products** | NOx. Cl-. Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions |

## Section 11: Toxicological Information

**RTECS** DU1800000

**Acute Toxicity**
Harmful if swallowed. Oral LD50 Mouse 1450 mg/kg Rat 375 mg/kg

**Skin Corrosion/Irritation**
Causes skin irritation

**Serious Eye Damage/Irritation**
Causes eye irritation.

**Respiratory or Skin Sensitization**
May cause respiratory tract irritation

**Germ Cell Mutagenicity**
Not available

**Carcinogenicity**
Not available

**Reproductive Toxicity**
Not available

**Routes of Entry**
Eye. Ingestion

**Symptoms Related to Exposure**
Loss of appetite. Stomach pain. Gas. Tiredness. Bloating. Headache. Taste changes. Nausea. Vomiting. Weight loss. Dizziness. Irregular heartbeat.

**Potential Health Effects**
Not available

**Target Organ(s)** Not available.

## Section 12: Ecological Information

**Ecotoxicity**
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistance and Degradability**
Not available

**Bioaccumulative Potential**
log Kow -1.43

**Mobility in Soil**
Not available

**Other Adverse Effects**
Not available

## Section 13: Disposal Considerations

**Waste Disposal**
Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations. The waste code should be assigned in discussion between the user, the producer and the waste disposal company

**Disposal of Container**
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner

**Other Considerations**
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## Section 14: Transport Information

**DOT Classification**
Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

## Section 15: Regulatory Information

**Regulations**
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found. OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other**
WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC): R22- Harmful if swallowed. S24/25- Avoid contact with skin and eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S36- Wear suitable protective clothing.

## Section 16: Other Information

Not available.