



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Omeprazole

MSDS DATE: 07 Jun, 2011

Notice

NSF Reference Standards are for test and assay use only and are not intended for human or animal consumption. This document communicates information relating to test and assay use only and may not be applicable for any unauthorized use.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Omeprazole
Catalog Code: RS1-0019
Synonym: Prilosec, Losec, Pepticum
Chemical Formula: $C_{17}H_{19}N_3O_4S$
CAS #: 73590-58-6

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name: Omeprazole

CAS#: 73590-58-6

% by Weight: 100%

Toxicological Data on Ingredients:

ORAL LD50 (mouse): 4000 mg/ kg (Mouse). 2210 mg/kg (Rat)

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Hazardous in case of inhalation (irritant). Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion.



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Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available

MUTAGENIC EFFECTS: Not available

TERATOGENIC EFFECTS: Not available

DEVELOPMENTAL TOXICITY: Not available

Omeprazole may be toxic to the gastrointestinal tract. Repeated or prolonged exposure to the substance can produce target organ damage.

SECTION 4: FIRST AID MEASURES

Eye Contact:

Check for and remove contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Warm water must be used. Get medical attention.

Skin Contact:

In case of contact, immediately wash skin with non-abrasive soap and plenty of water. Cover the irritated skin with an emollient. Seek medical attention.

Serious Skin Contact:

Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Serious Inhalation:

Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing. If symptoms appear, seek medical attention.

Serious Ingestion: Not available.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flammable Limits: Not available.

Flash Points: Not available

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...)

Special Remarks on Explosion Hazards: Not available.

Fire Hazards in Presence of Various Substances:



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Slightly flammable to flammable in presence of heat. Non-flammable in presence of shock.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Special Remarks on Fire Hazards: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional requirements.

Large Spill:

Use appropriate tools to put the material in a waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional requirements.

SECTION 7: HANDLING AND STORAGE

Precautions:

Keep away from heat, keep away from sources of ignition. Do not ingest. Do not breath dust. Never add water to this product. If ingested, seek medical advise immediately. Avoid contact with skin and eyes. Keep away from incompatible items such as oxidizers.

Storage:

This product is moisture sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Preferred storage, keep refrigerated. Alternative storage, frozen between -25 and -30 degrees C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

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If laboratory operations generate dust, fume or mist, use local exhaust ventilation or other appropriate engineering controls to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid.

Odor: Not Available

Taste: Not Available

Molecular Weight: 345.42 g/mol

Color: Off white to white

pH (1% soln/water): Not Available

Boiling Point: Not Available

Melting Point: 156°C (312.8°F)

Critical Temperature: Not available

Specific Gravity: Not available

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not Available.

Ionicity (in Water): Not available.

Dispersion Properties: Not Available

Solubility: Easily soluble in methanol. Partly soluble in acetone. Very slightly soluble in water.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.



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Conditions of Instability: Elevated temperatures, moisture, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not Available

Special Remarks on Reactivity: Moisture sensitive.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 2210 mg/kg [Rat]

Chronic effects on humans:

Causes damage to the following organs: Gastrointestinal tract.

Other Toxic Effects on Humans:

Hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of ingestion.

Special Remarks on Toxicity to Animals:

Not available

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects based on animal data. May effect genetic maerial. May cross placenta.

Special Remarks on other Toxic Effects on Humans:

Acute potential health effects:

Skin: May cause skin irritation

Eyes: Dust may cause eye irritation

Inhalation: Dust may cause respiratory tract irritation

Ingestion: May cause digestive tract irritation.

Other potential effects:

Blood (eosinophilia, normocytic anemia), metabolism, brain, behavior (ataxia, convulsions, sedation, change in motor activity, decreased activity), respiration (dyspnea, coughing, decreased respiration, pleural effusion, ptosis), liver (jaundice, hepatitis), immune system, urinary system, kidneys, and musculoskeletal.



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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The product itself and its degradation products are not toxic.

Special Remarks on the Products of Biodegradation: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable

Special Provisions for Transport: Not applicable.

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations:

None found.

Other Regulations: Not available

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada)

DSCL (EEC):

S26 – In case of contact with eyes, rinse immediately with water and seek medical attention S36 – Wear suitable protective clothing R36/38 – irritating to eyes and skin

HMIS (U.S.A.):



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Health Hazard: 1
Fire Hazard: 1
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1
Flammability: 1
Reactivity: 0
Specific hazard:

Protective Equipment:

Impervious Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

SECTION 16: OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

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