

## Pemetrexed, Disodium Salt, Heptahydrate

**Cat#: orb61083 (SDS)**

### SECTION 1. IDENTIFICATION:

Trade name: Pemetrexed, Disodium Salt, Heptahydrate

### SECTION 2. HAZARD(S) IDENTIFICATION:

Hazard Description: pharmaceutically active substance

Harmful if swallowed, inhaled, or absorbed through the skin

Ingestion may cause adverse blood effects (including suppression of bone marrow function, thrombocytopenia (reduced blood platelets), neutropenia (reduction of a certain type of white blood cells), and anemia, nausea, vomiting, diarrhea, anorexia (decreased appetite), constipation, fatigue/drowsiness, rash, mucositis (inflammation/ulceration of the mucous membranes lining the digestive tract, especially mouth sores), and elevated liver enzymes (AST/ALT)

May be harmful to unborn child and may impair fertility

Prolonged exposure may result in serious damage to health

Vitamin B12 and Folic Acid have been shown to reduce Pemetrexed toxicity

Exposure may cause irritation to eyes, mucous membranes, upper respiratory tract, and skin

Signal Word: Danger

#### GHS Hazard Statements:

H302+312+332 - Harmful if swallowed, in contact with skin or if inhaled

#### GHS Precautionary Statements:

P2562 - Do not get in eyes, on skin or on clothing

WARNING: For Laboratory Research Use Only

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Chemical Name: *N*-[4-[2-(2-Amino-4,7-dihydro-4-oxo-1*H*pyrrolo[2,3-*d*]pyrimidin-5-yl)ethyl]benzoyl]-*L*-glutamic acid DisodiumHeptahydrate

Synonyms: Alimta, LY-231514, MTA, Rolazar, Tifolar

Hazardous Ingredient: Pemetrexed, Disodium Salt, Heptahydrate

CAS Registry Number: 357166-29-1

Molecular Weight: 597.48

Molecular Formula:  $C_{20}H_{19}N_5Na_2O_6 \cdot 7H_2O$

#### **SECTION 4. FIRST-AID MEASURES:**

After Inhalation: If inhaled, remove to fresh air; if breathing is difficult, give oxygen; if breathing stops, give artificial respiration

After skin contact: flush with copious amounts of water; remove contaminated clothing and shoes; call a physician

After eye contact: check for and remove contact lenses; flush with copious amounts of water; assure adequate flushing by separating the eyelids with fingers; call a physician

After swallowing: if swallowed, wash out mouth with copious amounts of water; call a physician

#### **SECTION 5. FIRE-FIGHTING MEASURES:**

Suitable extinguishing agents: water spray, carbon dioxide, dry chemical powder or foam

Protective equipment: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

Unusual fire hazard: may emit toxic fumes under fire conditions such as carbon monoxide, etc.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES:**

Person-related safety precautions: cordon off area of spill; wear self-contained breathing apparatus, protective clothing and heavy rubber gloves

Measures for cleaning/collecting: absorb solutions with finely- powdered liquidbinding material (diatomite, universal binders); decontaminate surfaces and equipment by scrubbing with alcohol; dispose of contaminated material according to Section 13

#### **SECTION 7. HANDLING AND STORAGE:**

Information for safe handling: avoid contact with skin, eyes and clothing; material may be an irritant

Storage: store solid and solutions at  $-20\text{ }^{\circ}\text{C}$

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:**

Personal protective equipment as follows:

Breathing equipment: NIOSH/MSHA-approved respirator

Protection of hands: handle with Nitrile rubber gloves with minimum thickness of 0.11 mm (4.3 mil). This recommendation should not be interpreted as offering an approval for any specific use conditions. Please review this recommendation with a safety officer to evaluate if it is appropriate for the anticipated use.

Eye protection: chemical safety goggles

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:**

Form: crystalline solid; granular or powder

Color: white to off-white

Odor: none

Melting point/Melting range: not determined

Danger of explosion: none

Solubility in / Miscibility with water: soluble in water at 100 mg/mL; buffers, serum, or other additives may increase or decrease the aqueous solubility

Solvent content:

Organic solvents: very poorly soluble in DMSO; very poorly soluble in ethanol

**SECTION 10. STABILITY AND REACTIVITY:**

Stability: avoid acids and bases

Thermal decomposition / conditions to be avoided: protect from light and heat

Dangerous products of decomposition: thermal decomposition may produce toxic gases such as carbon monoxide and carbon dioxide, and nitrogen oxides

**SECTION 11. TOXICOLOGICAL INFORMATION:**

RTECS #: LZ9950150 (for the anhydrous disodium salt)

Acute toxicity: intravenous toxicity (LD50): 1332 mg/kg (male rat); >1574 mg/kg (female rat); dermal toxicity (LD50): >1000 mg/kg (rabbit) - toxicity data from the Lilly MSDS dated February 11, 2011 for Alimta

Primary irritant effect:

On the skin: causes skin irritation; may be harmful if absorbed through the skin

On the eye: may cause eye irritation

Inhalation: may be harmful if inhaled; may be an irritant

Ingestion: may be harmful if swallowed

**SECTION 12. ECOLOGICAL INFORMATION:**

General notes: practically non-toxic to fish, aquatic invertebrates, and green algae

**SECTION 13. DISPOSAL CONSIDERATIONS:**

Dispose of in accordance with prevailing country, federal, state and local regulations

**SECTION 14. TRANSPORT INFORMATION:**

DOT:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous

for transport

IATA class:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

#### **SECTION 15. REGULATORY INFORMATION:**

Code letter and hazard designation of product:

T: Toxic; Xi: Irritant

EU Risk And Safety phrases:

S22: Do not breathe dust

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

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

S53: Avoid exposure-obtain special instructions before use

R38: Irritating to skin

R48: Danger of serious damage to health by prolonged exposure

R60: May impair fertility

R61: May cause harm to the unborn child

R68: Possible risk of irreversible effects