

## VITAMIN B12 (CYANOCOBALAMIN)

### SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

**Product Name:** VITAMIN B<sub>12</sub> (Cyanocobalamin)

**Product Code:** 1704

**CAS#:** 68-19-9

**Chemical Formula:** C<sub>63</sub>H<sub>88</sub>CoN<sub>14</sub>O<sub>14</sub>P

**Molecular Formula:** 1355.38 g/mol

### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

#### Section 3: Composition/Information on Ingredients

**Name:** VITAMIN B<sub>12</sub> (Cyanocobalamin)

**Chemical Formula:** C<sub>63</sub>H<sub>88</sub>CoN<sub>14</sub>O<sub>14</sub>P

**Molecular Formula:** 1355.38 g/mol

### SECTION 3: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC.

**Other hazards** - None

### SECTION 4: FIRST AID MEASURES

#### If inhaled

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

#### In case of skin contact

Wash off with soap and plenty of water.

#### 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.

### SECTION 5: FIRE AND EXPLOSION DATA

#### Suitable extinguishing media

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

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

Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Sodium oxides

#### Advice for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal precautions and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas.

#### Environmental precautions

Do not let product enter drains.

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



Sweep up and shovel. Keep in suitable, closed containers for disposal.

### SECTION 7: HANDLING AND STORAGE

**Precautions:**

Keep away from heat. Keep away from sources of ignition.

**Storage:**

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

Recommended storage temperature: 2 - 8 °C

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

**Respiratory protection**

Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	:	Crystalline powder.
Odor	:	Not available
Taste	:	Not available
Molecular Weight	:	1355.38
Color	:	Not available
pH (10% soln/water)	:	Not available
Boiling Point	:	Not available
Melting Point	:	Not available
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	:	Not available

### SECTION 10: STABILITY AND REACTIVITY DATA

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

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat.

**Incompatibility with various substances:** Strong oxidizing agents

**Special Remarks on Reactivity:** Not available.



### SECTION 11: TOXICOLOGICAL INFORMATION

**Acute toxicity:** LD50 Oral - rat -5.000 mg/kg  
**Skin corrosion/irritation:** Not available.  
**Serious eye damage/eye irritation:** Not available.  
**Respiratory or skin sensitization:** Not available.  
**Carcinogenicity:** Not available.  
**Reproductive toxicity:** Not available.  
**Specific target organ toxicity - single exposure:** Not available.  
**Specific target organ toxicity - repeated exposure:** Not available.  
**Aspiration hazard:** Not available.

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity:** Not available  
**Persistence and degradability:** Not available.  
**Bioaccumulative potential:**

Bioaccumulation Chasmichthys gulosus - 3 d  
Bioconcentration factor (BCF): 3

**Mobility in soil:** 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

<b>UN number:</b>		
<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
<b>UN proper shipping name</b>		
<b>ADR/RID:</b> Not dangerous goods		
<b>IMDG:</b> Not dangerous goods		
<b>IATA:</b> Not dangerous goods		
<b>Transport hazard class(es):</b>		
<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
<b>Packaging group:</b>		
<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
<b>Environmental Hazards:</b>		
<b>ADR/RID:</b> no	<b>IMDG Marine pollutant:</b> no	<b>IATA:</b> no

### SECTION 15: OTHER REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Not available.

**Chemical Safety Assessment:** Not available.



**SECTION 16: OTHER INFORMATION**

**References:** Not available.

**Other Special Considerations:** Not available.

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