

Material Safety Data Sheet

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Version 1.1

According to 91/155/EEC

1 - Product and Company Information

Product Name	VITAMIN B12 CELL CULTURE TESTED
Product Number	V6629
Company	Sigma-Aldrich Ireland Ltd. Airton Road, Tallaght Dublin 24 Ireland
Technical Phone #	353-1404-1900
Fax	353-1404-1910

2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
CYANOCOBALAMIN, MEETS USP TEST SPECS.	68-19-9	200-680-0	None

Formula	C63H88CoN14O14P
Molecular Weight	1,355.37 AMU
Synonyms	Anacobin * Berubigen * Betalin-12 * Betalin 12 crystalline * Betaline-12 * B-Twelve * B-Twelve ora * Byladoce * Cabadon M * CN-B12 * Cobadoce forte * Cobalin * Cobamin * Cobione * Cotel * Covit * Crystamin * Crystwel * Cyano-B12 * Cyanocobalamin * Cyanocobalamine * Cycolamin * Cykobeminet * Cyredin * Cytaccon * Cytamen * Cytobion * Depinar * Dimethylbenzimidazolylcobamide * 5,6-Dimethylbenzimidazolylcobamide cyanide * Distivit (B12 peptide) * Dobetin * Docemine * Docibin * Docigram * Dodecabee * Dodecavite * Dodex * Ducobee * Duodecibin * Embiol * Emociclina * Eritrone * Erycytol * Erythrotin * Euhaemon * Extrinsic factor * Factor II (vitamin) * Fresmin * Hemo-B-doze * Hemomin * Hepagon * Hepavis * Hepcovite * Lactobacillus lactis dorner factor * LLD factor * Macrabin * Megalovel * Milbedoce * Nagravon * Normocytin * Pernaemon * Pernaevit * Pernipuron * Plecyamin * Poyamin * Rebramin * Redamina * Redisol * Rhodacryst * Rubesol * Rubramin * Rubramin PC * Rubripca * Rubrocitol * Sytobex * Vibalt *

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Not hazardous according to Directive 67/548/EEC.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.
Store at 2-8°C

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Wear dust mask.

Hand Protection: Protective gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Solid Color: Deep red Form: Powder	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions of Instability: May decompose on exposure to light.

Materials to Avoid: Strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Phosphorous oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: GG3750000

ACUTE TOXICITY

LD50
Intravenous
Mouse
2 GM/KG

SENSITIZATION

Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

SIGNS AND SYMPTOMS OF EXPOSURE

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

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

CHRONIC EXPOSURE - TERATOGEN

Species: Mouse Mouse
Dose: 168 MG/KG 168 MG/KG
Route of Application: Intramuscular Intramuscular
Exposure Time: (10D PREG) (10D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Urogenital system.
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Specific Developmental Abnormalities: Urogenital system.

Species: Mouse Mouse
Dose: 84 MG/KG 84 MG/KG
Route of Application: Intramuscular Intramuscular
Exposure Time: (11D PREG) (11D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat Rat
Dose: 115 MG/KG 115 MG/KG
Route of Application: Oral Oral
Exposure Time: (1-22D PREG) (1-22D PREG)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Biochemical and metabolic.
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12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

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 and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

S-PHRASES: 22 24/25

Do not breathe dust. Avoid contact with skin and eyes.

Not hazardous according to Directive 67/548/EEC.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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