

Material Safety Data Sheet

Date Printed: 31/MAY/2005
Date Updated: 17/MAR/2004
Version 1.2
According to 91/155/EEC

1 - Product and Company Information

Product Name COCARBOXYLASE
Product Number C8754

Company Sigma-Aldrich Pty, Ltd
Unit 2, 14 Anella Avenue
Castle Hill NSW 1765
Australia
Technical Phone # +61 2 9841 0555
Fax +61 2 9841 0500
Emergency Phone # +61 2 9841 0566

2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
COCARBOXYLASE	154-87-0	205-836-1	None
Formula	C12H19N4O7P2S.C1		
Molecular Weight	460.8 AMU		
Synonyms	Berolase * Biosynth * Bioxylasi * Bivitassi * B-Neurox * Co-Bi * Cocarbina * Cocarboxil * Cocarboxylase * Coenbione * Coxylase * Diphosphothiamin * Diphosphothiamine * Farmaneurina * Metabolase * Nutrase * Pyrolase * Pyruvodehydrase * TDP (thiamin ester) * Thiaminediphosphate * Thiamine-PP * Thiaminepyrophosphate * Thiamine pyrophosphate chloride * Thiamine pyrophosphoric ester * Thiaminpyrophosphate * TPP (coenzyme)		

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 skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

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

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area and keep personnel upwind.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear protective equipment.

METHODS FOR CLEANING UP

Spilled material should be carefully wiped up or moistened with water and removed.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid prolonged or repeated exposure. Avoid breathing dust. Do not get in eyes, on skin, on clothing.

STORAGE

Conditions of Storage: Keep container closed. Store away from heat.

Store at -20°C

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

9 - Physical and Chemical Properties

Appearance

Physical State: Solid
Form: Crystals

Property	Value	At Temperature or Pressure
pH	2.2	
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.	240 - 244 °C	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: Soluble.	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions of Instability: Light sensitive.

Conditions to Avoid: Heat.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Nitrogen oxides, Sulfur oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: XI7552000

ACUTE TOXICITY

LD50

Subcutaneous

Rat

5 GM/KG

LD50

Intravenous

Rat

465 MG/KG

LD50

Intramuscular

Rat

>500 MG/KG

Remarks: Peripheral Nerve and Sensation: Sensory change involving peripheral nerve. Behavioral: Somnolence (general depressed activity). Behavioral: Antipsychotic.

LD50
Subcutaneous
Mouse
2500 MG/KG

LD50
Intravenous
Mouse
360 MG/KG

LD50
Intramuscular
Mouse
>1 GM/KG

Remarks: Peripheral Nerve and Sensation: Sensory change involving peripheral nerve. Behavioral: Somnolence (general depressed activity). Behavioral: Antipsychotic.

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.

CONDITIONS AGGRAVATED BY EXPOSURE

The toxicological properties have not been thoroughly investigated.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

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

Not hazardous according to Directive 67/548/EEC.

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.

DISCLAIMER

For R&D use only. Not for drug, household or other uses.