Pestell NUTRITION

SAFETY DATA SHEET

Version : 1
Revision date : May 13, 2021

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Product Identity	Microvit B12 Promix 10000
Alternate Names	Microvit B12 Promix 10000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Supplier	Pestell Nutrition
Address	141 Hamilton Rd New Hamburg, Ontario Canada, N3A 2H1
Phone	519-662-2877
Email	qa@pestell.com
Emergency telephone number (24 hr)	Canada: CANUTEC 1 613-996-6666 US: CHEMTREC 1 703-527-3887

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Combustible Dust — May form combustible dust concentrations in air.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

May form combustible dust concentrations in air.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Calcium carbonate **CAS Number: 0000471-34-1**	**75 - 100**	**Not Classified**	**[1][2]**
Synthetic Amorphous Silica **CAS Number: 0112926-00-8**	**10 - 25**	**Not Classified**	**[1]**
Vitamin B12 **CAS Number: 0000068-19-9**	**1.0 - 10**	**Not Classified**	**[1]**

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. FIRST AID MEASURES

4.1. Description of first aid measures

General Notes to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse particulate matter from eye. Seek medical attention if irritation develops or persists or if visual changes occur.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention. Do not leave victim unattended.

4.2. Most important symptoms and effects, both acute and delayed

Overview Acute Eye: Irritant. Can cause irritation and redness upon prolonged contact.
Acute Skin: Skin absorption not likely. May cause dryness and irritation upon prolonged contact.
Acute Inhalation: Dusts may cause respiratory tract irritation.
Acute Ingestion: Low acute oral toxicity.
Chronic Effects: None known.
Medical Conditions Possibly Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.
See section 2 for further details.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon, oxides of nitrogen, oxides of calcium, oxides of phosphorous, oxides of cobalts, oxides of silica.

5.3. Advice for fire-fighters

Firefighters should wear NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water.
Product will burn under fire conditions. Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.

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6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Sweep up and place in an appropriate closed container. Clean up residual material by washing area with water. Collect washings for disposal.
Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing dusts. Avoid direct or prolonged contact with skin and eyes. THIS PRODUCT PRESENTS A DUST EXPLOSION HAZARD. It is recommended that all dust control equipment and material transport systems involved in the handling of this product contain explosion relief vents or explosion suppression systems or an oxygen deficient environment. In addition, all conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should only be flowed through non-conductive ducts or pipes. Use only appropriate classed electrical equipment.

See section 2 for further details. [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong bases, strong acids and strong oxidizing agents

Store in tightly-closed, original container. Store in an area that is cool, dry, dark and well-ventilated.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000068-19-9	Vitamin B12	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000471-34-1	Calcium carbonate	OSHA	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	No Established Limit
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
0007631-86-9	Amorphous Silica	OSHA	TWA 20 mppcf (80 mg/m3/%SiO2)
		ACGIH	No Established Limit
		NIOSH	TWA 6 mg/m3
		Supplier	No Established Limit

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf*) TWA, ACGIH 10 mg/m3.

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000068-19-9	Vitamin B12	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000471-34-1	Calcium carbonate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007631-86-9	Amorphous Silica	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;

8.2. Exposure controls

Respiratory When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with regulatory standards and/or industrial recommendations. Dust/mist filtering respirator is recommended.

Eyes A minimum of safety glasses with side shields is recommended.

Skin Skin contact should be minimized through the use of gloves and suitable long-sleeved clothing.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices The following general measures should be taken when working or handling this material: 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. 3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

See section 2 for further details. [Prevention]:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown Powder
Odor	Odorless
Odor threshold	Not Measured
pH	6-8 at 1-10 wt%
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	>93C (200F)
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	Not Measured
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	>825C (1517F)
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Extreme heat, open flame, dusting conditions, direct sunlight.

10.5. Incompatible materials

Strong bases, strong acids and strong oxidizing agents

10.6. Hazardous decomposition products

Oxides of carbon, oxides of nitrogen, oxides of calcium, oxides of phosphorous, oxides of cobalts, oxides of silica.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Calcium carbonate - (471-34-1)	6,450.00, Rat - Category: NA	No data available	No data available	No data available	No data available
Synthetic Amorphous Silica - (112926-00-8)	No data available	No data available	No data available	No data available	No data available
Vitamin B12 - (68-19-9)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Calcium carbonate - (471-34-1)	56,000.00, Gambusia affinis	Not Available	Not Available
Amorphous Silica - (7631-86-9)	10,000.00, Danio rerio	10,000.00, Daphnia magna	10,000.00 (72 hr), Scenedesmus subspicatus
Vitamin B12 - (68-19-9)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. TRANSPORT INFORMATION

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. REGULATORY INFORMATION

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	Not Regulated
US EPA Tier II Hazards	**Fire:** Yes
	Sudden Release of Pressure: No
	Reactive: No
	Immediate (Acute): No
	Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Synthetic Amorphous Silica

Pennsylvania RTK Substances (>1%):

Synthetic Amorphous Silica

16. OTHER INFORMATION

Disclaimer

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. Pestell Nutrition and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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