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IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE SUPPLIER

Product Name: WEST SYSTEM® Microspheres

Product Code: 411

Recommended use: Used in conjunction with epoxy resin and hardeners as fairing

compound.

Supplier: Adhesive Technologies NZ Limited

Street Address: 17 Corban Avenue, Henderson, Auckland

Telephone Number: 0064 9 838 6961 (8.00am to 5.00pm, Monday to Friday)

Facsimile: 0064 9 836 4849

Web Address http://www.adhesivetechnologies.co.nz/

Emergency Telephone: 0064 3 479 7248 (From overseas)

National Poison

Information Centre

0800 POISON (764 766) (within New Zealand)

New Zealand Fire Service 111

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2.0 HAZARDS IDENTIFICATION

Hazard Classification

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

For the full text of the H-Statements mentioned in this Section, see Section 16.

Signal Word:

Precautionary Statements

Hazards Statement

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

Prevention

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

Response

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

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Storage

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

Disposal

Non-hazardous according to GHS Version 7.0 Classification under the new Zealand HSNO Act 2017

Other hazards

3.0 COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous Ingredients:

Chemical Name	CAS No.	Concentration (%)
Glass Microspheres, Sodium Borosilicate	50815-87-7	>60
Other non-hazardous components		to 100

4.0 FIRST AID MEASURES

FIRST AID FOR EYES

SYMPTOMS: Excessive exposure may cause mechanical irritation, redness and tearing. RESPONSE: Flush with water for at least 15 minutes. Remove contact lenses if present and easy to do. Consult a physician as a precautionary measure if symptoms develop and persist.

FIRST AID FOR SKIN

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SYMPTOMS: May cause skin dryness and skin irritation, itching. RESPONSE: Wash with mild soap and water.

FIRST AID FOR INHALATION

SYMPTOMS: Excessive exposure may cause coughing, respiratory irritation or shortness of breath due to temporary lung overload. RESPONSE: Remove to fresh air if symptoms develop and keep comfortable for breathing. Seek medical advice is symptoms persist.

FIRST AID FOR INGESTION

SYMPTOMS: May be a temporary irritant to the gastrointestinal system. RESPONSE: Seek medical attention if a significant amount is ingested.

5.0 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

SUITABLE: The majority composition of this product will not support combustion. Choose an extinguishing agent suitable for the surrounding fire.

FIRE AND EXPLOSION HAZARDS:

The majority composition of this product will not support combustion. Not expected to form a combustible dust concentration in the air.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear a self-contained breathing apparatus and complete full-body personal protective equipment. Dust may form an explosive mixture in the air, possibly resulting in a secondary explosion.

6.0 ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES:

Keep unnecessary and unprotected personnel from entering area. Use appropriate safety and personal protective equipment as indicated in Section 8.

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MITIGATION AND CLEAN UP PROCEDURES:

Use methods that avoid generating airborne dust. Use a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Avoid creating a dust cloud by brushing or sweeping, or using compressed air. Spilled material may cause slippery conditions when wet.

ENVIRONMENTAL PRECAUTIONS:

Contain spilled product to the extent practical and feasible.

7.0 HANDLING & STORAGE

STORAGE TEMPERATURE (min./max.): 0°F (-17°C) / 100°F (38°C)

STORAGE:

Store in cool, dry place. Store in sealed containers to prevent moisture absorption or absorption of other volatile materials.

HANDLING PRECAUTIONS:

Avoid dust formation. Do not breathing dust. Wash after handling. Provide appropriate exhaust ventilation at points of operation where dust can be generated. If excessive dust is generated respiratory protection may be necessary. Avoid using compressed air.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use with adequate general ventilation and/or local ventilation to keep exposures below established limits.

EYE PROTECTION GUIDELINES:

Safety glasses with side shields, or goggles if necessary.

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SKIN PROTECTION GUIDELINES:

Liquid-proof gloves (such as neoprene or nitrile) should be used to prevent skin irritation. Barrier creams can be used effectively.

RESPIRATORY PROTECTION GUIDELINES:

When ventilation cannot be made adequate enough to keep exposures below established limits, use a NIOSH approved respirator with particulate filter, such as a N95 or greater, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.

ADDITIONAL PROTECTIVE MEASURES:

Practice good caution and personal cleanliness to avoid skin and eye contact. Wash thoroughly after handling. Do not eat, drink or smoke when handling this product. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS:

Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

Ingredient Name	CAS#	Exposure Limit Information
Glass Microspheres, Sodium Borosilicate	50815-87-7	0

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9.0 PHYSICAL & CHEMICAL PROPERTIES

Physical form: Powder, solid.

Color: Beige-tan.

Odor: Slight.

Odor threshold: No data available

pH: 10.5

Melting point / freezing point: No data available

Boiling point (760mm/hg): No data available

Flash point: No data available

Auto ignition temperature: No data available

Lower explosive limit (lel): No data available

Upper explosive limit (uel): No data available

Vapor pressure: No data available

Specific gravity/density (water = 1): No data available

Bulk density: No data available

Vapor density (air = 1): No data available

Evaporation rate (butyl acetate = 1): No data available

Water solubility (% by wt.): Largely insoluble.

Partition coefficient, n-octanol/water No data available

(log pow):

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Kinematic viscosity (mm2/s @ 20°c): No data available (mm2/s @ 20°C)

Decomposition temperature: No data available.

% Volatile by weight: Not applicable.

Explosive Properties: Dust may form explosive mixtures in air.

Explosive properties of this mixture have not been measured. One or more of the components of this mixture have been identified as having the potential to form an explosive mixture with air when

suspended as a dust cloud.

Kst Value: No data available

Maximum Explosion Pressure (pmax): No data available

Minimum Ignition Energy (mie): No data available

Maximum Explosion Concentration

(mec):

No data available

10.0 STABILITY & REACTIVITY

STABILITY: Product is stable at normal temperatures and pressures. **REACTIVITY/HAZARDOUS REACTIONS:** Product will not react by itself.

INCOMPATIBILITIES: None known.

CONDITIONS TO AVOID: Avoid excessive airborne dust formation.

DECOMPOSITION PRODUCTS: None known.

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11.0 TOXICOLOGICAL INFORMATION

Component Name	CAS#	LD ₅₀ Oral	LD ₅₀ Dermal	LC ₅₀ Inhalation
Glass Microspheres, Sodium	50815-87-7	No data	No data	No data
Borosilicate	50615-67-7	available	available	available

ACUTE TOXICITY:

No specific toxicity data exists for this mixture. Classification is based on acute toxicity estimation methods using ingredient data.

Oral: Not classified. Does not meet acute oral toxicity criteria.

Dermal: Not classified. Does not meet acute dermal toxicity criteria.

Inhalation: Not classified. Does not meet acute inhalation toxicity criteria.

SKIN CORROSION / IRRITATION: Causes skin irritation. Category 2.

SERIOUS EYE DAMAGE / IRRITATION: Causes serious eye irritation. Category 2A.

RESPIRATORY SENSITIZATION: Not classified. Does not meet criteria for respiratory sensitizer.

SKIN SENSITIZATION: Not classified. Does not meet criteria for skin sensitization.

REPRODUCTIVE TOXICITY: Not classified. Does not meet criteria for reproductive toxicity.

MUTAGENICITY: Not classified. Does not meet criteria for mutagenicity.

CARCINOGENICITY:

Not classified. Does not meet criteria for carcinogenicity. Does not contain components > 0.1% that are listed as a carcinogen by IARC, NTP or OSHA.

Synthetic amorphous silica: No evidence of carcinogenicity was observed in multiple animal species following repeated oral or inhalation exposure to synthetic amorphous silica. Similarly, epidemiology studies show no evidence of carcinogenicity in workers who manufacture synthetic amorphous silica.

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May contain trace amounts of acrylonitrile at levels <0.005% by weight. Acrylonitrile is listed by IARC as a Group 2B carcinogen, by NTP as a reasonably anticipated human carcinogen, and is specifically regulated by OSHA as a carcinogen.

STOT (Single Exposure): Not classified. Does not meet STOT SE criteria.

STOT (Repeated Exposure): Not classified. Does not meet STOT RE criteria.

ASPIRATION HAZARD: Not classified. Does not meet aspiration toxicity criteria.

OTHER HEALTH HAZARD INFORMATION: None known.

12.0 ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY:

No specific test data available for the mixture. Calculated Estimate: Does not meet acute aquatic toxicity criteria.

CHRONIC AQUATIC TOXICITY:

No specific test data available for the mixture. Calculated Estimate: Does not meet chronic aquatic toxicity criteria.

PERSISTANCE AND BIODEGRADABILITY: No specific test data available for the mixture.

MOBILITY IN SOIL: No specific test data available for the mixture.

ADDITIONAL ECOTOXICITY INFORMATION: Prevent release to the environment, sewers and natural waters.

Ingredient	CAS#	Ecotoxicity Classification Information
Glass Microspheres, Sodium Borosilicate	50815-87-7	No data available.

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13.0 DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must follow all Federal, State/Provincial, and local laws and regulations.

FOR UNUSED AND UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator, or other destruction device.

General information

The generation of waste should be minimised or avoided wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Do not discharge into drains or watercourses or onto the ground.

14.0 TRANSPORTATION & REGULATORY INFORMATION

US DOT (49 CFR) Non-Bulk UN NUMBER: Not regulated.

SHIPPING NAME: Not applicable.

TECHNICAL SHIPPING NAME: Not applicable.

HAZARD CLASS: Not applicable. **PACKING GROUP:** Not applicable.

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CANADA TDG

UN NUMBER: Not regulated.

SHIPPING NAME: Not applicable.

TECHNICAL SHIPPING NAME: Not applicable.

HAZARD CLASS: Not applicable. **PACKING GROUP:** Not applicable.

ICAO/IATA

UN NUMBER: Not regulated.

SHIPPING NAME: Not applicable.

TECHNICAL SHIPPING NAME: Not applicable.

HAZARD CLASS: Not applicable.

PACKING GROUP: Not applicable.

MARINE POLLUTANT: Not applicable.

IMDG

UN NUMBER: Not regulated.

SHIPPING NAME: Not applicable.

TECHNICAL SHIPPING NAME: Not applicable.

PACKING GROUP: Not applicable. **EmS Number:** Not applicable.

MARINE POLLUTANT: Not applicable.

15.0 REGULATORY INFORMATION

COUNTRY	INVENTORY LIST	STATUS
United States	TSCA	Components are listed or otherwise compliant.
Europe	EINECS or ELINCS	Components are listed or otherwise compliant.
Canada	CEPA (DSL/NDSL)	Components are listed or otherwise compliant.
Australia	AICS	Components are listed or otherwise compliant.
Japan	ENCS	Components are listed or otherwise compliant.
South Korea	KECI	Components are listed or otherwise compliant.
China	IECSC	Components are listed or otherwise compliant.
Philippines	PICCS	Components are listed or otherwise compliant.
New Zealand	NZIoC	Components are listed or otherwise compliant.

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US EPA TSCA Requirements: No data available.

Canada WHMIS Confidential Business Information (CBI): No data available.

US EPA SARA TITLE III Reporting and Notification Requirements:

Subject to Section 302 (TPQ): Not regulated. Subject to Section 304 (RQ): Not regulated.

Subject to Section 311 or 312: Refer to the health and physical classifications in section 2.

Subject to Section 313: Not regulated.

STATE REGULATORY INFORMATION:

Chemicals listed below may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

COMPONENT NAME /CAS NUMBER Amorphous silica / 7631-86-9 or 67762-90-7 Quartz, respirable / 14808-60-7 STATE CODE PA, NJ, MA 1 CA, PA, NJ, MA

^{1.} These substances are known to the state of California to cause cancer or reproductive harm, or both.

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16.0 OTHER INFORMATION

References

https://echa.europa.eu/information-on-chemicals/cl-inventory-databas

https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/

https://www.epa.govt.nz/

RCNZ Approved HSNO CoP Preparation of Safety Data Sheets

https://www.epa.govt.nz/assets/Uploads/Documents/Hazardous-Substances/GHS2/Guide to Classifying Hazardous Substances in NZ.pdf

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This version replaces all previous versions.

FOR FURTHER PRODUCT INFORMATION CALL ADHESIVE TECHNOLOGIES NZ LTD DURING BUSINESS HOURS

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