



SAFETY DATA SHEET

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REV. No.: No.012

1. PRODUCT INFORMATION :

PRODUCT GRADE 321N MM/T/S/SS/F
SUPPLIER TAITA CHEMICAL CO. LTD., / KAOHSIUNG BRANCH
NO. 3, Chen Chi St.Chein Chen, Kaohsiung, Taiwan
TEL : 886-7-810-0866
FAX : 886-7-811-2150
TRADE NAME TAITACELL EPS RESIN.
CHEMICAL NAME Expandable Polystyrene.
SYNONYMS EPS. (Expandable Polystyrene)
FORMULA (C₈ H₈)_n
USED FOR Processed into buffer packing materials

2. HAZARD IDENTIFICATION :

GHS Classification:

EPS belongs to a flammable solid.



Potential Health Effects :

Eye : Dust and process vapors may irritate eyes.

Skin : Exposure to molten resin may cause thermal burns.

Inhalation : Dust and process vapors may cause respiratory tract irritation.

Ingestion : Essentially no hazards anticipated from swallowing small amounts incidental to normal handling operations. Single dose oral toxicity is considered to be extremely low.

3. COMPOSITION/INFORMATION ON INGREDIENTS :

Component	CAS No.	Percentage (%)
Polystyrene	9003 - 53 - 6	91.0 min.
Styrene	00100 - 42 - 5	0.5 max.
Pentane	109-66-0	7.0 max.
Water	7732-18-5	0.5 max
Flame retardant agent* (Non-hexabromocyclodecane)	---	1.0 max

*Non-HBCD specifications for flame retardant expandable polystyrene product of taita chemical company,



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TAITACELL EPS RESIN

flame retardants contain CAS No.1195978-93-8 or other bromine compounds, but doesn't include the hexabromocyclodecane (HBCD).

4. FIRST AID MEASURES :

- Inhalation : In case of gases evolving from melted resin, move subject to fresh air.
Treat symptomatically.
- Skin Contact : In case of pellets or powder, wash with water.
In case of melt, wash affected skin area and clothing with plenty of soap and water, seek medical advice.
- Eye Contact : In case of pellets or powder, flush with plenty of water for at least 15 minutes.
Seek medical advice if any dust particles still remain.
In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary.
- Ingestion : Induce vomiting. Rinse mouth with water. Seek medical advice if necessary.

5. FIRE-FIGHTING MEASURES :

- | | |
|--------------------------------------|---|
| Extinguishing Media | Water, Foam, Dry chemical extinguish media. |
| Special Fire-Fighting Procedure | Self contained breathing apparatus and turnout gear. |
| Fire and Explosion Hazards | None |
| Unusual Fire and Explosion Hazards : | If exposed to fire , high heat will be developed and heavy black smoke will result. During combustion , carbon monoxide will be produced. |

6. ACCIDENTAL RELEASE MEASURES :

- | | |
|---------------------------|---|
| Methods for Cleaning up | : Recovery if not contaminated or Disposal. |
| Personal Precautions | : Pellets or powder remained on ground may cause slipping. |
| Environmental Precautions | : Gather pellets and powder thoroughly to avoid or fishes taking from draining water. |

7. HANDLING AND STORAGE :

- Handling : Prevent from fire around handling area. Maintain good house keeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of power, electrostatics eliminators and grounding should be fixed to such equipments as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters.
- Storage : Keep the materials at a cool dry place. Protect from direct sunlight, rain and violent



temperature fluctuation. Fire is inhibited storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION :

Threshold Limit Value Not determined
Ventilation Necessary to exclude dust, fumes and gases.

PERSONAL PROTECTION :

Eye Wear safety glasses for general purpose. Wear chemical goggles for cleaning molding machines.
Respiratory Wear masks for cleaning molding machines.
Gloves Necessary for handling melted resin.

9. PHYSICAL AND CHEMICAL PROPERTIES :

Appearance Clear beads
Odor Pentane
Softening Point $\geq 90\text{ }^{\circ}\text{C}$
Melting Point: —
Specific Gravity 1.04
Solubility in Water Insoluble
Flash point : $63\text{ }^{\circ}\text{C}$ (Cleveland Open Cup, COC)-ASTM D92

10. STABILITY AND REACTIVITY :

Stability Stable
Conditions to Avoid Heat, sparks and flames
Chemical Incompatibility Aromatic solvents
Hazardous Decomposition Products Carbon monoxide
Hazardous Polymerization Does not occur
Corrosive to meter No
Oxidizer No

11. TOXICOLOGICAL INFORMATION :

Toxicological Test Date

Pentane Narcosis and respiratory irritation caused by overexposure to vapors.

Effects of Overexposure

Overexposure to Pentane Vapors may cause defatting of skin, irritation of eyes, dizziness and loss of coordination.



12. ECOLOGICAL INFORMATION :

For the safety of ocean species and birds, disposal of the waste to the ocean and water courses is inhibited.

13. DISPOSAL CONSIDERATIONS :

Controlled incineration or landfill according to local, state or national laws and regulations concerning health and pollution. Inadequate incineration may generate toxic gases such as CO and SM.

14. TRANSPORT INFORMATION :

Proper shipping name : Polymeric Beads, Expandable

Hazard class: 9

Packing group: II/III

ID number: UN 2211

Hazard label: 9

15. REGULATORY INFORMATION :

- 1.Occupational Safety and Health Action. (Taiwan)
- 2.Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace (Taiwan)
- 3.Criteria Governing Methods of and Facilities for Storage, Clearance and Treatment of Industrial Wastes (Taiwan)
- 4.Section 84 of the Road Traffic Safety Rules (Taiwan)
- 5.Regulations of Hazard Communication on Dangerous and Harmful Materials (Taiwan)

16. OTHER INFORMATION :

Tabulation : Taita Chemical Company, Limited. R & D Dept.

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