

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Trade name : Polystyrene

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Manufacture of plastic articles

1.3. Supplier

Shaw Polymers, LLC
400 N. Indiana Ave.
Crown Point, IN, 46307
T 219-779-9450
www.shawpolymers.com

1.4. Emergency telephone number

Emergency number : 1-888-898-7249

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Combustible Dust May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Signal word (GHS US) : Warning
Hazard statements (GHS US) : May form combustible dust concentrations in air

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Handling this product may result in electrostatic accumulation. Use proper grounding procedures.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Polystyrene	CAS-No.: 9003-53-6	94.5 – 100	Not classified
White mineral oil, petroleum	CAS-No.: 8042-47-5	0 – 5	Asp. Tox. 1, H304

Polystyrene

Safety Data Sheet

according to US HazCom 2012

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Dust from this product may cause respiratory irritation. During handling at high temperatures : Inhalation of fumes or vapors may cause respiratory irritation.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use. Heated product causes burns.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use. Heated product causes burns.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. Heated product causes burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Dust may form explosive mixture in air. On combustion, forms: carbon oxides (CO and CO ₂). Aldehydes. Ketones. Hydrocarbons. Toxic fumes.
Explosion hazard	: Dust explosion possible if in powder or granular form, mixed with air.
Reactivity in case of fire	: Stable under normal conditions.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
----------------------	-----------------------------------

Polystyrene

Safety Data Sheet

according to US HazCom 2012

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Collect all waste in suitable and labeled containers and dispose according to local legislation. Dispose of at a licensed waste collection center.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Dust may form explosive mixture in air. Handling this product may result in electrostatic accumulation. Use proper grounding procedures.
Precautions for safe handling : Ensure adequate ventilation. Avoid dust formation. Avoid raising powdered material due to explosion hazard.
Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store at room temperature. Keep only in the original container in a cool, well ventilated place away from : Heat sources, Incompatible materials, Direct sunlight. Keep container closed when not in use.
Incompatible materials : Strong oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

White mineral oil, petroleum (8042-47-5)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m ³
ACGIH OEL STEL	10 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Polystyrene

Safety Data Sheet

according to US HazCom 2012

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear protective gloves to help prevent mechanical injury. For thermal protection from molten material, wear gloves with insulation. Check the resistance to chemicals and heat when choosing protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Not required for normal conditions of use. Wear heat resistant boots and protective clothing when handling material at elevated temperatures.

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pellets/tablets.
Color	: Transparent
Odor	: odourless
Odor threshold	: No data available
pH	: No data available
Melting point	: > 132 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.04 g/cm ³
Solubility	: Negligible in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Dust may form explosive mixture in air.
Oxidizing properties	: No data available

9.2. Other information

Softening point : ≈ 100 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at room temperature.

Polystyrene

Safety Data Sheet

according to US HazCom 2012

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.

10.4. Conditions to avoid

Overheating. Heat sources. Direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. On combustion forms: Carbon monoxide. Carbon dioxide. Toxic fumes. Hazardous decomposition products may be released during prolonged heating above. 315°C. Styrene. Benzene. Hydrocarbons. fume.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

White mineral oil, petroleum (8042-47-5)

LD50 oral rat	> 5000 mg/kg (Source: IUCLID)
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Polystyrene (9003-53-6)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

White mineral oil, petroleum (8042-47-5)

NOAEL (oral,rat,90 days)	≥ 1200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
--------------------------	---

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic : No data available
Likely routes of exposure : Inhalation. Ingestion. Skin. Eyes.
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : Dust from this product may cause respiratory irritation. During handling at high temperatures : Inhalation of fumes or vapors may cause respiratory irritation.
Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use. Heated product causes burns.

Polystyrene

Safety Data Sheet

according to US HazCom 2012

Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use. Heated product causes burns.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. Heated product causes burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : This material has not been tested for environmental effects.

White mineral oil, petroleum (8042-47-5)	
LC50 - Fish [2]	> 100 mg/l 96 hours
ErC50 algae	> 100 mg/l 72 hours

12.2. Persistence and degradability

Polystyrene

Persistence and degradability : Not established.

12.3. Bioaccumulative potential

Polystyrene

Bioaccumulative potential : Not established.

White mineral oil, petroleum (8042-47-5)

Partition coefficient n-octanol/water (Log Pow) : > 6

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Recycle product or dispose safely.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecological information	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated

Polystyrene

Safety Data Sheet

according to US HazCom 2012

DOT	TDG	IMDG	IATA
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to US HazCom 2012

Revision date : 05 April 2024

Other information : None.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.