

MATERIAL SAFETY DATA SHEET (MSDS)

ARPAK Expanded Polyethylene (EPE) Black and White

IMPORTANT

Read this MSDS before handling and disposing of this product. Provide this information on to all users of this product.

1. Company and Substance Identification

1.1 Company

JSP Resins LLC
1285 Drummers Lane
Suite 301
Wayne, PA 19087
USA

Tel.: +1 (610) 651-8600
Fax: +1 (610) 651-8601

1.2 Product identification

Trade name:	ARPAK [®] Expanded Polyethylene (EPE)
Chemical name :	Ethylene Polymer, Linear Low Density (LLDPE)
Chemical Family:	Polyethylene
Emergency phone number	+1 (610) 651-8616

2. Hazard(s) Identification

Risk Phrases: None

Not harmful to health or environment under normal use of product. If material is heated up, may cause burns.

3. Composition/Information on Ingredients

3.1 Composition

Compositions given are typical values, and are not to be construed as specifications.

<u>Component</u>	<u>% Weight</u>	<u>CAS No</u>	<u>EINECS No</u>
Polyethylene, Linear Low Density	95.0 - 99.9	Various	Not applicable
Carbon Black	0.1 – 5.0 (0.0 for White)	1333-86-4	215-609-9

3.2 Information on components

Hazardous component(s): None

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4. First-Aid Measures

Inhalation:	Not expected to present a significant inhalation hazard. In case of breathing excessive airborne dust, remove from area, provide fresh air and have subject blow nose.
Skin contact:	Not expected to present a significant skin hazard under anticipated conditions of normal use. Any heated/molten material on skin should be cooled as fast as possible. Seek immediate medical attention.
Eye contact:	Rinse the eyes in order to remove particles of this product.
Ingestion:	Not applicable under normal conditions of use.

5. Fire-Fighting Measures

Usual extinguishing methods:	Water (preferably spray), CO ₂ , foam, or dry chemical.
Special exposure hazards:	Combustible material. Heat sensitive: May melt. Molten material forms flaming drops after igniting. Incomplete thermal decomposition or burning may release hazardous products and/or flammable vapors (like ethylene, ethane, carbon monoxide, propane, etc.)

In case of close fire-fighting, use breathing apparatus.

6. Accidental Release Measures

Spilled product may create slipping hazard on any hard smooth surface. Quickly sweep up product. Handle and store according to measures as defined in section 7.

Use personal protection as defined in section 8.

Cleaning methods: Collect product in an appropriate way and avoid dust formation. Place in suitable labeled container for appropriate disposal (See Section 13).

7. Handling and Storage

Handling: In order to avoid static discharge, equipment should be made of conducting material and should be grounded.

Storage: Keep away from heat or ignition sources (flame or sparks). Do not smoke.

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8. Exposure Controls / Personal Protection

Occupational Exposure:	EU: VME = 10 mg/m ³ (8 hour basis - Decree 84-1093)
<i>Dust</i>	USA: TLV (ACGIH) 1997-98: TWA= 10 mg/m ³ .
Collective protection:	Good general ventilation should be provided.
Personal protection:	Eye protection should be worn for all industrial operations.
Skin protection:	Under anticipated conditions of normal use: not normally considered as skin hazard. Use suitable protection gloves and clothes against contact with molten product.
Industrial hygiene:	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities.

9. Physical and Chemical Properties

Appearance:	Plastic beads
Physical state at 25°C:	Solid
Color:	Black or white (depending on grade/type)
Odor:	Odorless
Density at 25°C (g/l or kg/m ³):	10 to 225
Solubility in water (% weight):	Insoluble
Other solvents:	Slightly soluble in hot organic solvents
Melting point temperature (°C):	110 to 150°C
Decomposition temperature (°C):	> 300°C
Auto-ignition temperature (°C):	> 350°C

10. Stability and Reactivity

The product is stable in normal use conditions.

Decomposition products: Incomplete combustion will generate carbon monoxide and possibly other toxic vapors.

11. Toxicological Information

Refer to section 3.

Acute Toxicity:	LD50 not available
Inhalation:	Dust can irritate the upper respiratory tract.
Skin contact:	Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a skin irritant.
Eye contact:	Can induce irritation or injury of the cornea due to a mechanical action.
Ingestion:	May cause choking if ingested.
Chronic Toxicity:	No chronic health effects for this material have been reported.

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12. Ecological Information

Product is biologically inert and not readily degradable.

13. Disposal considerations

Dispose of product in accordance with local and national regulations on waste disposal. User is encouraged to recycle or reuse material.

14. Transportation information

UN No.	Not classified.
ADR/RID	Not classified.
ADR/VLG	Not classified.
ADNR	Not classified.
IMO-IMG code	Not classified.
ICAO/IATA	Not classified.

15. Regulatory Information

EEC Labeling	
Symbol(s):	None.
R Phrase(s):	None.
S Phrase(s):	None.

The contents and format of this MSDS are in accordance with US OSHA requirements and EEC Commission directives 67/548/EEC, 91/155/EEC (and its modification 2001/58/EC), 1999/45/EC and their adaptations to technical progress.

16. Other information

All information contained herein is based on the present state of our knowledge at the date of issue. It is believed to be accurate. It is intended to describe products from the point of view of safety requirements. It should not be construed as guaranteeing specific properties.

Under no circumstances is the user exempt from respecting legislative or administrative requirements related to the product in terms of safety, hygiene, and/or health and environmental protection.

This product should be stored, handled and used in accordance with good industrial hygiene practices and according to local regulations.

For this and other reasons, we do not assume responsibility and expressly disclaim any liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use of, and/or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.