

**Material Safety Data Sheet**  
**ABS (Acrylonitrile Butadiene Styrene)**

**Product Identification:**

Product Name : ABS Welding Rod  
Product Code : ABS Rod  
Product Description : Acrylonitrile Butadiene Styrene Terpolymer (ABS)  
(CAS# 9003-56-9)

**Composition/Information on Ingredients:**

Ingredient Name/CAS Number	OSHA Units	ACGIH Units
Styrene	50.0 ppm PEL	50.0 ppm TLV
100-4Z-5	100.0 ppm STEL	100.0 ppm STEL

This product consists primarily of high molecular weight polymers. Substances listed above are reportable hazardous ingredients as defined by the OSHA Hazard Communication Standard. Exposure limits, when available, are also listed. Styrene, if present, is listed above based upon its IARC Classification as a possible carcinogen.

Additional compositional data are also provided in section 15. Regulatory information, subject to supplier notification requirements.

**Hazards Identification:**

Emergency Overview – Solid rod with slight or no odor. Spilled rods can create a slipping hazard. Can burn in a fire creating a dense toxic smoke. Molten plastic can cause severe thermal burns. Fumes produced during melt processing may cause eye, skin and respiratory tract irritation. Secondary operations, such as grinding, sanding or sawing, can produce dust which may present an explosion or respiratory hazard.

**Potential Health Effects:**

Eye: Product may cause irritation or injury due to mechanical injury.  
Skin: Rods not likely to cause skin irritation.  
Inhalation: Rod inhalation not likely due to physical form.  
Ingestion: Not acutely toxic.

**Chronic/Carcinogenicity**

NTP: Not tested  
OSHA: Not regulated  
IARC: Listed

Melt processing health effects: Molten plastic can cause severe burns.

Processing fumes may cause irritation to the eyes, skin and respiratory tract, and in cases of severe overexposure, nausea and headache.

Grease-like processing fume condensates on ventilation duct work, molds and other surfaces can cause irritation and injury to skin.

**Medical Restrictions:** There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals with respiratory impairments may be affected by exposure to components in the processing fumes.

**Note:** Additives containing certain heavy metal compounds may be present. These ingredients are essentially bound in the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

**First Aid Measures:**

Eyes:	Remove contact lenses at once. Immediately flush eyes with copious quantities of water or normal saline for at least 20 – 30 minutes. If irritation persists, seek medical attention.
Skin:	Wash skin thoroughly with soap and water. Seek medical attention if rash or burn occurs.
Ingestion:	Not probable. If a large amount is swallowed, seek medical attention.
Inhalation:	Not likely to be inhaled due to physical form.
Melt Processing:	For molten plastic skin contact, cool rapidly with breathe fresh air. If coughing, difficult breathing or any other symptoms develop seek medical attention at once, even if symptoms develop at a later time.

For skin contact with fume condensate, immediately wash thoroughly with soap and water. If irritation develops, seek medical attention.

**Fire Fighting Measures:**

Fire Fighting – Approved pressure demand breathing apparatus and protective clothing should be used for all fires. Water spray is the preferred extinguishing medium. This product will melt but will not be carried on the surface of the water.

Extinguishing Medium – Water spray and foam. Water is the best extinguishing medium. Carbon dioxide and dry chemicals are not generally recommended because of their lack of cooling capacity may permit re-ignition.

Hazardous Combustion Products – Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, hydrogen cyanide, hydrocarbon fragments and carbon dioxide.

Flash Point:	Not Applicable
Lower Flammable Limit:	Not Established
Upper Flammable Limit:	Not Established
Auto Ignition:	508 C (946° F), Estimated
Conditions of Flammability:	Requires a continuous flame source to ignite.
Explosion Data:	
Impact Sensitivity:	Not sensitive to mechanical impact.
Static Discharge:	Not sensitive to static discharge. (See handling and storage)

**Accidental Release Measures:**

General – Sweep or gather up material and place in proper container for disposal or recovery. (See disposal information)

**Handling and Storage:**

Handling – Prevent contact with skin and eyes. Use good industrial hygiene practices.

Storage – Store in a dry place away from moisture, excessive heat and sources of ignition. Avoid storing in sunlight/sources of UV.

**Exposure Controls/Personal Protection:**

A continuous supply of fresh air to the workplace together with removal of processing fumes through exhaust systems is recommended.

When handling rods avoid prolonged or repeated contact with skin. When melt processing wear long sleeves, long pants, well insulated gloves and a face shield when applicable.

When processing fumes are not adequately controlled, use respirator approved for protection from organic vapors and acid gases.

**Physical and Chemical Properties:**

Physical State:	Solid
Odor and Appearance:	Plastic rod with slight odor
Boiling Point:	Not Applicable
Melting Point:	This product does not exhibit a sharp melting point, but softens gradually over a wide temperature range.
Vapor Pressure (mmHg):	Negligible
Vapor Density (Air=1):	Not Applicable
Specific Gravity (Water=1):	> 1
Water Solubility:	Insoluble
% Volatiles:	Negligible
pH:	Not Applicable
Odor Threshold:	Not Established
Evaporation Rate:	Negligible
Coefficient Water/Oil Distr:	Not Established

**Stability and Reactivity:**

Stability:	Stable under recommended conditions of storage and handling.
Reactivity:	Not reactive under recommended conditions of handling, storage, processing and use.
Conditions to avoid:	Do not exceed recommended welding temperatures.
Hazardous Decomposition:	Processing fumes evolved at recommended processing conditions may include trace levels of Styrene, Acrylonitrile, Acrolein, Acetaldehyde, Acetophenone, Ethylbenzene, Cumene, 4-Vinylcyclohexene and Phenols.

**Toxicological Information:**

Product:

Acute Oral: Oral LD50 (Rat) > 5 g/kg. Eastimated  
Components: Styrene Monomer is listed as a possible carcinogen by IARC. Rats exposed to Acrylonitrile by inhalation or ingestion induced brain, zymball gland (No comparable human gland) and stomach tumors.

Ecological Information:

General Problems: Not expected to present any significant ecological problems.

Disposal Information:

RCRA Hazardous Waste: Product is not a RCRA hazardous waste.  
Waste Disposal: Recycling is encouraged. Landfill or incinerate in accordance with Federal, State and Local requirements.

Transportation Information:

DOT Hazard Class: Not regulated  
Proper Shipping Name: Not regulated  
Identification Number: Not listed  
TDGA: Not listed

**Regulatory Information:**

Listed below are chemical substances subject to supplier notification requirements. The percentages, when present, represent average values.

CAS Nubmer	EPCRA	WHMIS	NPRI	CA-65	FL RI
<i>Chemical Name</i>	313%	%	%	%	
100-42-5 <i>Styrene</i>	0.4				
107-13-1 <i>Acrylonitrile</i>				<0.01	

CA-65: Chemical substances identified under the California Proposition 85 column are known to the state of California to cause cancer and/or reproductive toxicity.

TSCA Status: This product complies with the chemical substances inventory requirements of the US EPA Toxic Substances Control Act (TSCA).

WHMIS Classification: Not a controlled product

**Other:**

Prepared by: Product Compliance

The above information and recommendations are believed accurate and reliable. Because it is not possible to anticipate all conditions of use additional safety precautions may be required. Seelye Acquisitions, Inc. makes no warranty, either expressed or implied, including merchantability and fitness.

User Responsibility – Each user should read and understand this information and incorporate it into individual site safety programs in accordance with applicable hazard communication standards and regulations.