

Expanded PVC

1. Product details

Usage: Plastic sheet products

Chemical characterization: Foamed Rigid Polyvinyl Chloride Sheets

Tin stabilized PVC sheets, 2.5% by weight tin-mercaptide based stabilizer. Pigments and additives used to enhance specific properties are encapsulated in the polymer resin

matrix. No solvents. No plasticizers.

2. Hazards identification

No hazards known.

3. First aid measures

Inhalation: Move subject to fresh air.

Skin contact: Burns resulting from accidental contact with molten material

must be flushed immediately with cold water. Do not remove

the polymer from the skin. Seek medical attention.

Eye contact: Flush eyes with plenty of water for at least 15 minutes. Call a

physician.

Ingestion: If swallowed, seek medical attention.

4. Fire - fighting measures

Suitable extinguishing measures: Water spray or CO₂.

Specific fire hazards: Personnel without suitable respiratory apparatus should leave

the affected area to prevent exposure to toxic or combustible

gas.

Special protective equipment & Positive

precaution for fire fighters:

Positive-pressure self-contained breathing apparatus, protective clothing, gas mask approved for acid vapors.

Unusual fire and explosion hazards: PVC is a self-extinguishing fire-retardant material, that being

exposed to open fire and high temperatures decomposes emitting large quantities of HCl, which tends to extinguish the flames. It does not continue to burn after ignition without an external fire source. HCl has a strong acidic odor that causes sensory alert at very low concentrations. HCl odor threshold – 0.77 ppm. Exposure to high concentrations of HCl will cause

irritation of the respiratory passages, at very high

concentrations may cause burns to mucous membranes. OSHA legal airborne PEL is 5 ppm, not to be exceeded at any time. ACGIH recommended airborne exposure limit is 5 ppm, which should not be exceeded at any time. Soot emitted when

PVC is forced to burn may obscure visibility.





5. Accidental release measures

No special precautions and no personal protective equipment needed. Collect mechanically for disposal.

6. Handling and storage

General handling precautions: Avoid mechanical contact with eyes.

Ventilation: General (mechanical) room ventilation is expected to be

satisfactory where product is stored and handled.

Other precautions: No explosion hazard. In the event of a fire, cool and overlap

product with water. Static electricity discharge sparks possible during handling. Avoid contact in or around or vicinity of

flammable materials.

Storage: Store in a cool shady are. No special technical protective

measures required.

7. Exposure control

Exposure limits: No occupational exposure limits established by OSHA,

ACGIH, or NIOSH.

Respiratory protection: No special protection needed

Hand protection:

No special protection needed

Eye protection: No special protection needed

Other equipment: No special protection needed

8. Physical and chemical properties

Physical state: Flat and corrugated opaque foamed plastic sheets

Color: White or colored

Odor: Not applicable

pH: Not applicable

Melting point: 428 - 446°F (220 – 230°C)

Boiling point: Not applicable

Decomposition temperature: Not applicable

Flash point: 735°F (391°C) ASTM D 1929

Auto-ignition temperature: 849°F (454°C) ASTM D 1921

Explosion limits: Not applicable





Evaporation rate: Not applicable

Vapor pressure: Not applicable

Vapor density: Not applicable

Relative density: 0.4 – 1.0 gr/cm³

Solubility in water: <0.1g/100mL at 23°C

Softening point: 302°F (150 - 160°C)

9. Stability and reactivity

Stability: Stable.

Conditions to avoid: Protect from excessive heat, or open flame. Temperatures

above 302°F (150°C) will decompose raw polymer resin and

liberate HCI.

Materials to avoid: Oxidizing agents or strong mineral acids.

Thermal decomposition: Begins above 302°F (150°C) caused by fire, overheating

during improper processing. Fumes damaging to health may

be released.

Hazardous decomposition products: Burning can produce the following combustion products:

Carbon monoxide (CO), carbon dioxide (CO₂), hydrogen

chloride (HCI).

Reactivity: Hazardous reactions: none. Hazardous polymerization will not

occur.

10. Toxicological information

PVC materials have a very low acute toxicity. In rats, an acute $LD_{50} > 10$ gr/kg of body weight. PNEUMOCONIOSIS has been described from inhalation of combustion products (effects of overexposure). Industrial hygiene studies have shown that under normal and expected conditions of use of PVC materials, exposures are well below applicable limits.

Acute oral toxicity: None

Acute percutaneous toxicity: None

Acute vapor exposure: None

Primary skin irritation: No irritation

Eye irritation: No irritation

Sensitization: No information available

Chronic effects: Unknown

Carcinogenicity: Not listed





11. Ecological information

Persistence and degradability: Detailed studies have not been conducted concerning the

environmental fate of the product. According to present knowledge, no unfavorable ecological effects are to be expected. Not generally hazardous to water. Insoluble in

water, non-toxic solid.

No information currently available.

Ecotoxicity: LD_{50} (rats) > 10 gr/kg

LC₅₀ (bacterial inhibition) – no data available

Aquatic toxicity: LC₅₀ (daphnia magna) – no data available

LC₅₀ (fat head minnow – fish) – no data available

12. Disposal considerations

This product is not considered hazardous under current EPA hazardous waste regulations. Recycling is the preferred method of disposal. Alternatively, the product may be disposed of in an approved landfill. High temperature incineration under controlled conditions due to formation of HCl. All wastes should be evaluated in conjunction with applicable solid and hazardous waste regulations, Toxicity Characteristic Leaching Procedures (TCLP), and disposed of as appropriate. This product does not contain any cadmium or other heavy metal pigments or stabilizers. It is the user's responsibility to dispose of all wastes in accordance with all national and local regulations at properly permitted or authorized facilities.

13. Transport information

Not subject to national and international regulations on the transport of dangerous goods.

14. Regulatory information

With regards to dust formed as a consequence of mechanical treatments, the appropriate regulations value limits for fine dust must be observed: MAC value (fine dust) – 5mg/m³. OSHA Hazard Communication Classification for dusts and combustion fumes: irritant, skin hazard, and lung hazard. SARA Title III Classification for dusts and combustion fumes: acute health hazard, chronic health hazard. WHMIS Classification: Non-hazardous.

15. Other information

SDS Prepared by: A&C Plastics

The information presented herein is believed to be factual and reliable. It is offered in good faith, but without guarantee, since conditions and methods for the use of our products are beyond our control. We recommend that the prospective user determine the suitability of our products and these suggestions before adopting them on a commercial scale.

