Product Safety Data Sheet (PSDS) for Palram Foamed PVC Products

This document covers safety data concerning the following products:

PALIGHT®
PALIGHT® Print
PALIGHT® Digital
PALIGHT® EPS
PALIGHT® Trimboard
PALIGHT® Marine
PALFOAM™
PALTOP™
PALBOARD™

Compliance with EU Regulation 1907/2006 (REACH)
The sheets manufactured by Palram are exempted from the requirement of the REACH regulation to provide customers with a Safety Data Sheet (EU No. 1907/2006, article 31) since they are defined as "articles." The information herein is provided by Palram as courtesy to its customers and a part of its service efforts. The sheets do not contain any substances on the candidate list for inclusion in Annex XIV of REACH above the threshold level of 0.1% by weight of the article.

1. Identification of the article and the company

1.1. Identification of the article

Trade Names : PALIGHT®, PALIGHT® Print, PALIGHT® Digital, PALIGHT® EPS, PALIGHT® Trimboard, PALIGHT® Marine, PALFOAM™, PALTOP™, PALBOARD™

Product Name : Foamed Rigid Polyvinyl Chloride sheets
Product Name : Polyvinyl Chloride Homopolymer
CAS Number : 9002-86-2
UN Number : None
ACX Number : X1007407-8
RTECS : KV0350000
Material synonyms : PVC
NFPA Ratings : Health=1, Fire=0, Reactivity=0

1.2. Company Identification & Contact

Israel - Palram PVC
Address: Ramat Yohanan, 30035, ISRAEL
Tel: +972 4 8459 900
Fax: +972 4 8444 012

UK - Palram DPL
Address: 22 Coatham Ave. Autumncliff Industrial Park
Newton Aycliffe Co. Durham, DL5 6DB, UK
Tel: +44 1325 300437
Fax: +44 1325 318173

Americas - Palram Panels (PPI)
Address: 9471 Commerce Circle
Kutztown, PA 19530, USA
Tel: +610-285-9918
Fax: +484-647-8210

Local: Call your nearest poison control center.

2. Composition / Information of Ingredients

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. No cadmium, lead, or other heavy metals used.

3. Hazards identification

No particular hazards known.

3.1. Health Hazard Data

3.1.1 Effects of a Single Overexposure

Swallowing : Non-relevant
Skin absorption : Non-relevant
Inhalation : Non-relevant
Skin contact : Exposure is not expected to cause adverse health effects
Eye contact : Non-relevant

3.1.2 Effects of a Repeated Overexposure - None currently known

3.1.3 Medical Conditions Aggravated by Overexposure - None currently known

3.1.4 Other Effects of Overexposure - None currently known
4. First Aid Measures
In general handling the material will not cause accidents.

4.1. Inhalation
Route of entry – inhalation: No
If exposed to combustion fumes in high concentration - bring victim to fresh air. Medical attention needed.

4.2. Ingestion
Route of entry – ingestion: No

4.3. 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. Medical attention needed.

4.4. Skin Absorption
Route of entry – skin: No

4.5. Eye Contact
Like any foreign body, can cause mechanical irritation. Consult physician.

4.6. Notes for Physician
There are no specific notes.

5. Fire Fighting Measures

5.1. Extinguishing Media
Water spray or CO₂. CO₂ is less recommended due to lack of cooling capacity.

5.2. Extinguishing Media to Avoid
No information currently available.

5.3. Special Fire Fighting Procedures
Personnel without suitable respiratory apparatus should leave the affected area to prevent exposure to toxic or combustible gases.

5.4. Special Protective Equipment For Firefighters
Positive-pressure self-contained breathing apparatus, protective closing, gas mask approved for acid vapours.

5.5. 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.

6. Accidental Release Measures
No special precautions and no personal protective equipment needed. Collect mechanically for disposal.

7. Handling and Storage

7.1. Handling
General handling precautions
Avoid mechanical contact with eyes.

Ventilation
General (mechanical) room ventilation is expected to be satisfactory where this product is stored and handled.
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Other precautions
No explosion hazard. In the event of fire, cool and overlap product with water.
Static electricity discharge sparks possible during handling. Avoid contact or vicinity of flammable materials.

7.2. Storage
Store in a cool shady area. No special technical protective measures required.

8. Exposure Controls / Personal Protection

8.1. Exposure Limits
No occupational exposure limits established by OSHA, ACGIH, or NIOSH.

8.2. Personal Protection
Respiratory protection: No special protection needed
Hand protection / protection gloves: No special protection needed
Eye protection: No special protection needed
Other protective equipment: No special protection needed

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Flat and corrugated opaque foamed plastic sheets</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>White or colored</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Density</td>
<td>0.4–1.0 gr/cm³</td>
</tr>
<tr>
<td>Heat Deflection</td>
<td>62–65°C</td>
</tr>
<tr>
<td>Boiling Point, 760 Hg</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>&lt;0.1g/100mL at 23°C</td>
</tr>
<tr>
<td>pH Value</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Flash Point</td>
<td>391°C ASTM D 1929</td>
</tr>
<tr>
<td>Autoignition Temp.</td>
<td>454°C ASTM D 1921</td>
</tr>
<tr>
<td>Flammability Limit</td>
<td>None</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>None</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Percent Volatiles</td>
<td>Not relevant</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

10.1. Stability
Stable.

Conditions to avoid
Excessive heat, or open flame. Temperature above 150°C will decompose raw polymer resin and liberate HCl.

Incompatible materials
Oxidizing agents or strong mineral acids can cause reaction.

Thermal decomposition
Begins above 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) - is highly toxic if inhaled, present in combustion fumes of all organic materials;
- Carbon dioxide (CO₂) - in sufficient concentrations can act as an asphyxiant, present in combustion fumes of all organic materials;
- Hydrogen chloride (HCl) - in high concentrations cause irritation of the respiratory passages, at very high concentrations may cause burns to mucous membranes.
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10.2. Reactivity
Hazardous polymerization: Will not occur
Hazardous reactions: None.

11. Toxicological Information
PVC materials have a very low acute toxicity. In rats an acute LD₅₀ > 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.

11.1. Acute Toxicological Information
- 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 - NTP: not listed
- Carcinogenicity - IARC: not listed
- Carcinogenicity - OSHA: not listed

11.2. Other Toxicological Information
No known toxicological effects with normal use. For heating see section 10.

11.3. Additional Information
No additional toxicity information currently available.

12. Ecological Information

12.1. 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.
- Mobility: No information currently available
- Persistence and biodegrad ability: Biodegradation period - tens of years.
- Bioaccumulative potential: No information currently available.

12.2. Environmental Risks
No hazard expectation to terrestrial or aquatic flora and fauna.
- Ecotoxicity: LD₅₀ (rats) > 10 gr/kg
- Aquatic toxicity: LC₅₀ (daphnia magna) - no data available
- Aquatic toxicity: LC₅₀ (fathead minnow – fish) - no data available

12.3. Other Information
All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this safety data.

13. Disposal Considerations
The 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.
14. Transport Information

DOT PSN Code : ZZZ
DOT Proper Shipping Name : Not regulated by this mode of transportation
IMO PSN Code : ZZZ
IMO Proper Shipping Name : Not regulated by this mode of transportation
IATA PSN Code : ZZZ
IATA Proper Shipping Name : Not regulated by this mode of transportation
AFI PSN Code : ZZZ
AFI Proper Shipping Name : Not regulated by this mode of transportation
Additional transportation data regulations
Labeling : No labeling is required in accordance with the EEC directives
Placarding : No placarding is required in accordance with the EEC directives
Special transport requirements : None
Packaging : Avoid dark-colored packaging to prevent heat distortion

The product is classified as a non-hazardous material in the meaning of transport regulations.

15. 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

16. Other Information

Recommended Uses and Restrictions
Please consult the relevant product and/or application information for this product.

Further Information
Additional information on this product may be obtained by calling your Palram Sales or Customer Service Contact.

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