HATCHBOX ABS 3D Printer Filament
HATCHBOX
Safety Data Sheet

Revision date: 3 January 2017
Print date: 3 January 2017
Version: Rev 1

1. Product and Company Identification

1.1 Product identifiers

<table>
<thead>
<tr>
<th>Classification of the substance or mixture according to GHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS class</td>
</tr>
</tbody>
</table>

Classification according to Regulation (EC) No 1272/2008

1272/2008 class | Based on present data no classification and labelling is required according to Directive 1272/2008/EC and its amendments (CLP Regulation, GHS) |

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

67/548/EEC class | According to present data no classification and labelling is required according to Directives 67/548/EEC |

1999/45/EC class | According to present data no classification and labelling is required according to Directives 1999/45/EC |

Information concerning particular hazards for human and environment
No particular hazards for human and environment.

2. Hazards Identification

2.1 GHS Label elements, including precautionary statements

<table>
<thead>
<tr>
<th>NFPA ratings (scale 0 – 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health - 0</td>
</tr>
<tr>
<td>Fire - 0</td>
</tr>
<tr>
<td>Reactivity - 0</td>
</tr>
</tbody>
</table>
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Complete toxicity data are not available for this specific formulation.

Potential route of overexposure to this product may include eye and skin contact, and inhalation of excessive amounts of dust or heat-released vapors. Ingestion is not expected to be a significant route of exposure for this product under normal use conditions.

Product is a non-toxic solid material having minimal odor. Vapors and other heat-released air emissions may be irritating to the eyes, skin, and respiratory system. Under fire conditions, product will readily burn and emit a heavy, irritating smoke. Contact with molten material may cause serious thermal burns.

3. Composition/Information on Ingredients

3.1 Product mixture

| Synonyms | Acrylonitrile butadiene styrene, ABS, thermoplastic polymer |
| Formula | Mixture |
| Molecular wt | Mixture |
| CAS-No. | Mixture |
| EC-No. | Mixture |

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Ingredient Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(acrylonitrile-co-butadiene-co-styrene)</td>
<td>9003-56-9</td>
<td>618-371-8</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Remarks

There are no additional hazardous ingredients greater than or equal to 1.0 wt% concentration or carcinogenic ingredients greater than or equal to 0.1 wt% concentration.

4. First Aid Measures

4.1 Description of first aid measures

| General advice | Consult a physician. Show this safety data sheet to the doctor in attendance. |
| Skin contact | Keep away from open cuts and irritated skin. If skin has contact with molten material, place affected area under cold running water. Seek medical attention for removal of material from the affected area. Consult a physician if symptoms occur. |
| Eye contact | If dust or vapors contacts the eyes rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If molten material contacts eyes, rinse with water and seek medical attention immediately. |
| Inhalation | Move person to fresh air. Consult a physician if difficulties in breathing or other symptoms occur. |
| Ingestion | Rinse mouth with water and consult a physician if gastrointestinal or other symptoms occur. |

4.2 Most important symptoms and effects, both acute and delayed

| Symptoms and effects | The most important known symptoms and effects are described in the labelling (see section 2.2) and in section 11. |

4.3 Indication of any immediate medical attention and special treatment needed

| Other first aid | No data available |

5. Fire Fighting Measures

5.1 Suitable (and unsuitable) extinguishing media

| Suitable extinguishing media | Use alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |

5.2 Special hazards arising from the substance or mixture

| Special hazards | Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Decomposition products may include the follow materials: carbon dioxide, carbon monoxide, nitrogen oxides (NOx) |
5.3 Advice for firefighters

Protective equipment

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions

Avoid contact with skin and eyes. Avoid breathing vapors, mist or dust. Ensure adequate ventilation in areas where dust can accumulate. Remove all sources of ignition and evacuate personnel to safe areas. Dust can accumulate in low areas when dealing with large quantities. For personal protection see section 8.

6.2 Environmental precautions

Prevent runoff into sewers and drains. Recover as much of the material as possible. Prevent further leakage and safe to do so.

6.3 Methods and materials for containment and cleaning up

Methods for cleanup

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with a shovel or mechanical means and place in container for disposal according to local regulations (see Section 13). Prevent accumulation of vapours/dust during clean up. Keep in suitable, closed containers for disposal. Contain spillage.

6.4 References to other sections

Other references

For disposal see section 13.

7. Handling and Storage

7.1 General hygiene considerations

General hygiene

Avoid contact with eyes. Avoid inhalation of vapor or dust. Use local exhaust or general dilution ventilation to control exposure and dust within applicable limits. Keep away from high temperatures and sources of ignition. For precautions see section 2.2. Wash hands after use. Individuals with respiratory disease, including but not limited to asthma and bronchitis, or subject to eye irritation, should not be exposed to dust overexposures.

7.2 Precautions for safe handling

Safe handling precautions

Keep container tightly closed in a dry and well-ventilated place. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Keep away from high temperatures and potential sources of ignition. Non-combustible solids.

7.3 Conditions for safe storage, including any incompatibilities

Other storage conditions

Store product in a dry environment, away from strong bases and oxidizers. Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure Controls/Personal Protection

8.1 Control and exposure limits recommended by the chemical manufacturer

OSHA standards

Contains no substances with occupational exposure limit values.

ACGIH TLV

Contains no substances with occupational exposure limit values.

NIOSH recommendations

Contains no substances with occupational exposure limit values.

8.2 Appropriate engineering controls

Engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of day. Use adequate ventilation where dust forms to keep concentration under exposure control limits. Keep away from high temperatures and sources of ignition.

8.3 Individual protection measures, such as personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye/face protection

Safety glasses with side-shields conforming to EN166 are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance          Solid, various colors
b) Odor                Slight odor
c) Odor threshold      No data available
d) pH                   No data available
e) Melting/freezing point No data available
f) Boiling point       No data available
g) Flash point         No data available
h) Evaporation rate    No data available
i) Flammability (solid, gas) No data available
j) Upper/lower flammability or explosive limits
   Upper (UEL): No data available
   Lower (LEL): No data available
k) Vapor pressure      No data available
l) Vapor density       No data available
m) Relative density    No data available
n) Water solubility    No data available
o) Partition coefficient octanol/water
   No data available
p) Auto-ignition temp  No data available
q) Decomposition temp  No data available
r) Viscosity           No data available

10. Stability and Reactivity

10.1 Reactivity
   Reactivity            No data available

10.2 Chemical stability
   Chemical stability    Stable under ordinary conditions of use and storage.

10.3 Possibility of hazardous reactions
   Hazardous reactions   No data available

10.4 Conditions to avoid
   Conditions to avoid   Contact with incompatible chemicals and exposure to extremely high temperatures.

10.5 Incompatible materials
   Incompatible materials Strong oxidizers, strong acids, acid chlorides, acid anhydrides, chloroformates, or strong reducing agents.

10.6 Hazardous decomposition products
   Hazardous products    None under normal processing. In the event of fire, see section 5.

11. Toxicological Information

11.1 Information on toxicological effects

   Acute toxicity
      Acute oral toxicity      No data available
      Acute intravenous toxicity No data available
      Acute dermal toxicity    No data available
      Acute inhalation toxicity No data available

   Skin corrosion/irritation
      Skin corrosion irritation May cause irritation to open cuts and irritated skin
### 12. Ecological Information

#### 12.1 Ecotoxicity (aquatic and terrestrial)
- Ecotoxicity: No data available

#### 12.2 Persistence and degradability
- Degradability: No data available

#### 12.3 Bioaccumulation potential
- Bioaccumulation: No data available

#### 12.4 Mobility in soil
- Mobility in soil: No data available

#### 12.5 Results of PBT and vPvB assessment
- PBT/vPvB assessment: Not available as chemical safety assessment not required/not conducted.

### 13. Disposal Considerations

#### 13.1 Waste treatment methods
- Waste treatment disposal: For consumer use, dispose of in trash can. Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

### 14. Transport Information

- DOT: Not dangerous goods.
- IMDG: Not dangerous goods.
- IATA: Not dangerous goods.
15. Regulatory Information

15.1 Safety, health, and environmental regulations specific to the product or mixture

SARA 302 Components  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components  This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards  No hazards.

TSCA  All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements.

Canada DSL  All components of this product are on the Canada Domestic Substance List or are exempt from DSL requirements.

WHMIS classification  No ingredients are hazardous according to the CPR criteria.

CA Prop. 65 components  This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Hazard symbols  None
Risk phrases  None
Safety phrases  None

International lists  
Australia - AICS - The materials are listed or exempted  
Canada - The materials are listed or exempted  
China - IECSC - The materials are listed or exempted  
Europe - EINECS - The materials are listed or exempted  
Japan - ENCS/ISHL - The materials are listed or exempted  
Malaysia - The materials are listed or exempted  
New Zealand - NZIoC - The materials are listed or exempted  
Philippines - PICCS - The materials are listed or exempted  
Korea - KECI - The materials are listed or exempted  
Taiwan - NECI - The materials are listed or exempted  
Turkey - The materials are listed or exempted  
United States - The materials are listed or exempted

16. Other Information

HMIS Rating  
Health hazard: 0  
Flammability: 0  
Physical Hazard 0

NFPA Rating  
Health hazard: 0  
Fire Hazard: 0  
Reactivity Hazard: 0

Revision Date  3 January 2017

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. HATCHBOX assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, HATCHBOX assumes no responsibility for injury to vendee or third persons proximately caused by use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

Abbreviations and acronyms  
IMDG - International Maritime Code for Dangerous Goods  
IATA - International Air Transport Association  
GHS - Globally Harmonized System of Classification and Labelling of Chemicals  
PBT - Persistent, bioaccumulative and toxic assessment  
vPvB - Very persistent and very bioaccumulative assessment  
ACGIH - American Conference of Governmental Industrial Hygienists  
NIOSH - National Institute for Occupational Safety and Health  
TLV - Threshold Limit Values  
CAS - Chemical Abstracts Service (division of the American Chemical Society)  
NFPA - National Fire Protection Association  
HMIS - Hazardous Materials Identification System  
CFR - Code of Federal Regulations  
SARA - Superfund Amendments and Reauthorization Act  
DOT - US Department of Transportation
EC50 - Half maximal effective concentration
LD50 - Median lethal dose
LC50 - Median lethal concentration
SDS - Safety Data Sheet
PEL - Permissible Exposure Limit
TSCA - Toxic Substances Control Act