1. Product and Company Identification

1.1 Product Identifiers

<table>
<thead>
<tr>
<th>Product Name</th>
<th>HATCHBOX TPU 3D Printer Filament</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producer</td>
<td>HATCHBOX</td>
</tr>
<tr>
<td>Product Number</td>
<td>3D TPU</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>Not available - mixture</td>
</tr>
</tbody>
</table>

1.2 Identified uses of the product and uses advised against

Identified Uses

- 3D printer filament, thermoplastic polymer

1.3 Details of the chemical supplier

<table>
<thead>
<tr>
<th>Company</th>
<th>HATCHBOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>2675 Pomona Blvd Pomona, CA 91768 USA</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+1 (909) 655-0163</td>
</tr>
</tbody>
</table>

1.4 Emergency phone number

Emergency phone number

+1 (800) 424-9300 (CHEMTREC Emergency Telephone, 24 hrs-a-day / 7 days-a-week)

2. Hazards Identification

2.1 Classification of the substance or mixture according to GHS

GHS class

- Not a hazardous substance or mixture

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.

Classification system

The classification is according to the latest editions and extended by company and literature data.

2.2 GHS Label elements, including precautionary statements

GHS pictograms

- None

Signal word

- None

Hazard statements

- None

Precautionary statements

- None

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

NFPA ratings (scale 0 – 4)

- Health - 0
- Fire - 0
- Reactivity - 0
HMIS ratings (scale 0 – 4)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>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 | Thermoplastic polyurethane, 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>Thermoplastic polyurethane</td>
<td>n/a</td>
<td>n/a</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.
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

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.
Body protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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
Serious eye damage/eye irritation

Eye damage/eye irritation  Vapors or flakes may cause irritation to eyes

Respiratory or skin sensitization

Respiratory sensitizer  No data available
Skin sensitizer  No data available

Germ cell mutagenicity

Mutagenicity  No data available

Carcinogenicity

Carcinogenicity  No data available

Suspected cancer agent

ACGIH  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity

Reproductive toxicity  No data available

Aspiration hazard

Aspiration hazard  No data available

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

<table>
<thead>
<tr>
<th>SARA 302 Components</th>
<th>No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 313 Components</td>
<td>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.</td>
</tr>
<tr>
<td>SARA 311/312 Hazards</td>
<td>No hazards.</td>
</tr>
<tr>
<td>TSCA</td>
<td>All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements.</td>
</tr>
<tr>
<td>Canada DSL</td>
<td>All components of this product are on the Canada Domestic Substance List or are exempt from DSL requirements.</td>
</tr>
<tr>
<td>WHMIS classification</td>
<td>No ingredients are hazardous according to the CPR criteria.</td>
</tr>
<tr>
<td>CA Prop. 65 components</td>
<td>This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard symbols</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk phrases</td>
<td>None</td>
</tr>
<tr>
<td>Safety phrases</td>
<td>None</td>
</tr>
</tbody>
</table>
| 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