

## SECTION 1 - IDENTIFICATION

### **COMPANY ADDRESS:**

The Virtual Foundry, Inc  
1471 US HWY 51  
Stoughton, WI 53589  
USA

**EMERGENCY PHONE NUMBER:** Information about the product can be obtained at (608) 509-7146 (Monitored 9am - 5pm Central Time USA Monday - Friday).  
For all emergency calls, call the relevant emergency number for your country.

**PRODUCT NAME:** Pickling Blend

**PRODUCT USE:** Pickling sintered metal 3D printed parts.

## SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

**CLASSIFICATION:** Serious Eye Damage/ Irritation (Category 1).

**SIGNAL WORD:** Danger

**PHYSICAL HAZARDS:** This product can cause serious eye damage. Wear safety goggles when using this product.

**HAZARD STATEMENTS:** Causes serious eye damage.

**OTHER HAZARDS:** The product is not intended for applications in which it may come in contact with food or drinking water.



## SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

The ingredient names and percentage information is omitted as it is a trade secret.

## SECTION 4 - FIRST AID MEASURES

**IF SWALLOWED:** Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Seek medical attention immediately.

**IF ON SKIN OR CLOTHING:** Wash hands and contact skin with soap and water.

**IF IN EYES:** Rinse with copious amounts of water for 15 minutes. Seek medical attention if irritation is persistent.

**IF INHALED:** If use causes discomfort, move to a well ventilated area and seek medical attention.

**MAIN SYMPTOMS:** Redness, coughing and/or wheezing. Eye irritation or serious eye damage may occur when in direct contact with eyes.

**NOTE TO PHYSICIAN:** Treat symptomatically.

## SECTION 5 - FIRE FIGHTING MEASURES

### FLAMMABILITY

**AUTOIGNITION TEMPERATURE:** Not applicable.

**SUITABLE EXTINGUISHING MEDIA:** Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, Halon, or any other.

**UNSUITABLE EXTINGUISHING MEDIA:** None known.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:** No information available.

**HAZARDOUS COMBUSTION PRODUCTS:** None known.

**SENSITIVITY TO MECHANICAL IMPACT:** Not sensitive.

**SENSITIVITY TO STATIC DISCHARGE:** No information available.

**FIRE FIGHTING INSTRUCTIONS AND FIRE FIGHTING EQUIPMENT:** Wear Self Contained Breathing Apparatus and full protective equipment for fire response. Move containers from the fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool. Contaminated equipment should be rinsed thoroughly with water before returning to service.

**ADDITIONAL INFORMATION:** This product is non-combustible. This product does not significantly contribute to the intensity of a fire. Use extinguishing material suitable to the surrounding fire.

**PERSONAL PROTECTIVE EQUIPMENT:** MSHA/NIOSH approved self-contained breathing apparatus or equivalent.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Keep out of reach of children. Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation. Use in a well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up the spilled product immediately.

**ENVIRONMENTAL PRECAUTIONS:** Avoid response actions that can cause a release of a significant amount of the substance (1 kg or more) into the environment

**METHODS FOR CLEANING UP:** Use a sponge to clean up spills and put the substance into an approved waste container for disposal.

## SECTION 7 - HANDLING AND STORAGE

**HANDLING:** Avoid dust formation. Work in a ventilated area. Low hazard for usual handling. Use caution when near molten polymers.

**STORAGE:** Store in a cool, dry environment; keep away from heat, sparks, and flames. Storage space should not exceed 50 °C (122 °F).

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

### EXPOSURE LIMITS

There are no exposure limits for the ingredients of this product.

The ingredient names and percentage information is omitted as it is a trade secret.

## ENGINEERING CONTROLS

**Engineering Measures:** Use local exhaust as needed. Safety showers, eye wash stations, and hand-washing equipment should be available.

## PERSONAL PROTECTIVE EQUIPMENT

**Eye protection:** Avoid contact with eyes. Wear safety glasses.

**Skin protection:** Avoid skin contact with molten polymer. Wear appropriate protective clothing to minimize risk of injury to the skin from contact with dust or physical abrasion. Wear long sleeved/impervious clothing if contact is probable and skin is sensitive. Protect contact with skin when processing; wear insulated safety gloves; wash hands after handling.

**Respiratory protection:** Process in a well-ventilated area; respirator recommended upon treatment (mechanical, thermal, chemical, etc).

**Hand protection:** Wear safety gloves; wash hands after handling.

**Hygiene measures:** Provide regular cleaning of equipment, work area and clothing. Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink, or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. Do not breathe dust. Use personal protective equipment as required.

**Special hazard:** Workers should be protected from the possibility of contact with eyes.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

|                                |                           |
|--------------------------------|---------------------------|
| <b>Physical State:</b>         | Solid                     |
| <b>Appearance:</b>             | Pellets                   |
| <b>Color:</b>                  | Translucent, whiteish     |
| <b>Odor:</b>                   | None.                     |
| <b>Odor Threshold:</b>         | No information available. |
| <b>pH:</b>                     | No information available. |
| <b>Melting/Freezing Point:</b> | No information available. |
| <b>Boiling Point:</b>          | No information available. |
| <b>Flash Point:</b>            | No information available. |

|                               |                           |
|-------------------------------|---------------------------|
| Evaporation Rate:             | No information available. |
| Flammability:                 | No information available. |
| Flammability Limits:          | No information available. |
| Vapor Pressure:               | No information available. |
| Vapor Density:                | No information available. |
| Relative Density:             | No information available. |
| Water Solubility:             | Soluble.                  |
| Solubility in other solvents: | No information available. |
| Chemical Stability:           | No information available. |
| Partition Coefficient:        | No information available. |
| Auto-Ignition Temperature:    | No information available. |
| Decomposition Temperature:    | No information available. |
| Viscosity:                    | No information available. |

## SECTION 10 - STABILITY AND REACTIVITY

**REACTIVITY:** Not reactive under normal conditions.

**INCOMPATIBILITY:** Strong oxidizers, and bases.

**CHEMICAL STABILITY:** Stable under recommended storage conditions.

**HAZARDOUS POLYMERIZATION:** Will not undergo hazardous polymerization.

**CONDITIONS & MATERIALS TO AVOID:** Avoid open flames. Do not heat to temperatures above 250°C (482°F). Do not keep polymers molten for excessive periods of time.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, and compounds containing sodium and sulfur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Principal routes of exposure:** Skin contact.

**PRODUCT INFORMATION:**

**Toxicity:** Acute Toxicity:

Oral: Estimated >2,000mg/kg

Dermal: Estimated >2,000mg/kg

**Carcinogenic effects:** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Target organ effects:** Eyes, Respiratory system.

**Ingestion:** May cause gastrointestinal discomfort if consumed in large amounts. Not an expected route of exposure.

**Inhalation:** Inhalation of dust in high concentration may cause irritation of the respiratory system.

**Eye Contact:** Dust contact with the eyes can lead to mechanical irritation or serious eye damage.

**Symptoms related to the physical, chemical, and toxicological characteristics:** Redness. Coughing and/or wheezing.

**Delayed, immediate, and chronic effects from short and long term exposure:** May cause skin irritation and/or dermatitis.

**Irritation:** Product dust may be irritating to eyes, skin, and respiratory system.

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** Pellets may be eaten by wildlife and should be swept up and placed in closed containers.

**Persistence and degradability:** Not readily biodegradable.

**Bioaccumulation:** Not expected to bioconcentrate or bioaccumulate.

**Other adverse effects:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

## SECTION 13 - DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHODS:** Dispose in compliance with Federal, State, and local disposal laws for nonhazardous waste. Should not be released into the environment. Do not contaminate ponds, waterways or ditches with chemical or used containers. Contact the manufacturer with questions.

**CONTAMINATED PACKAGING:** Dispose in compliance with Federal, State, and local disposal laws for nonhazardous waste. Packaging may be reused.

## SECTION 14 - TRANSPORT INFORMATION

**DOT:** Not regulated.

**MEX:** Not regulated.

**ICAO:** Not regulated.

**IATA:** Not regulated.

**IMDG:** Not regulated.

**UN NUMBER:** N/A.

**Transportation In Bulk:** Not Applicable.

**Special Precautions For Transport:** None.

## SECTION 15 - REGULATORY INFORMATION

Regulatory requirements are subject to change and may differ between locations. It is the User's responsibility to ensure that all activities comply with all federal, state or provincial, and local laws and regulations. The following specific information is made for the purpose of complying with numerous national, federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

**DOT:** This product is not regulated by USDOT as a Hazardous Material (49 CFR 172.101). No UN code assigned. No placard required for transportation.

**SARA (TITLE III):** Not Listed.

**SARA (SECTION 313):** Not Listed.

**CALIFORNIA PROP. 65:** Not Listed.

**TSCA:** Listed.

**CLEAN AIR ACT, TITLE VI (1990):** This product does not contain, nor was it manufactured using ozone depleting chemicals.

Inventory Status:

TSCA (USA): Listed\*

DSL (Canada): Not Listed

EINECS (Europe): Not Listed

AICS (Australia): Not Listed

ENCS (Japan): Listed\*

IECSC (People's Republic of China): Not Listed

KECL (Korea): Listed\*

TCSI (Taiwan): Listed\*

\*"Listed" indicates that all components of this product comply with the inventory requirements administered by the governing country.

## SECTION 16 - OTHER INFORMATION, INCLUDING THE DATE OF PREPARATION OF THE LAST REVISION

**LABEL REQUIREMENTS:** Not expected to produce significant adverse health effects when the recommended instructions for use are followed.

|                           |  |   |
|---------------------------|--|---|
| NFPA<br>HAZARD<br>RATINGS | HEALTH   | 2 |
|                           | FLAMMABILITY   | 1 |
|                           | PHYSICAL HAZARD  | 0 |
|                           | INSTABILITY  | - |
|                           | 4=Severe   3=Serious   2=Moderate   1=Slight   0=Minimal |   |

|                           |              |   |
|---------------------------|--------------|---|
| HMIS<br>HAZARD<br>RATINGS | HEALTH       | 2 |
|                           | FLAMMABILITY | 1 |

|  |                     |   |
|--|---------------------|---|
|  | PHYSICAL HAZARD     | 0 |
|  | PERSONAL PROTECTION | X |
| 4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal |                     |   |

**DISCLAIMER:** The information provided in this SDS is based on available data from reliable sources and is correct to the best of The Virtual Foundry, Inc's knowledge. The Virtual Foundry, Inc makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

REVISED DATE:

March 2024