

Safety Data Sheet

PRODUCT NAME: RIZIUM ONE



MSDS No: PF07801

Version: 2.0

Revision date: 10/30/2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

| | |
|--|---------------------------------------|
| Product name | Rizium One |
| Details of the supplier of the safety data sheet: | |
| Manufacturer/Supplier name | Rize Inc. |
| Address | 4C Gill St Woburn, MA 01801 USA |
| Customer Service | 1-978-699-3085 |
| Emergency telephone (English only) | 1-978-699-3085 |

Relevant uses and uses advised against:

Use: 3D printing filament

SECTION 2: HAZARD(S) IDENTIFICATION

GHS-US Classification

Not a hazardous substance or mixture

GHS label elements

None

Precautionary statements

Not applicable

Other hazards

As supplied and when used as intended, this product is not expected to cause any adverse health effects. Toxic combustion products may be released under fire conditions

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any hazardous ingredient at or above regulated thresholds

SECTION 4: FIRST AID MEASURES

Inhalation N/A under normal use

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| | |
|--------------|---|
| Skin contact | N/A under normal use |
| Eye contact | Treat as any foreign particulate matter. Do not rub eye. Flush eyes with running water for several minutes while holding eyelids open. Consult a physician if irritation persists |
| Ingestion | Normally not needed. If large quantities are ingested or if you feel unwell, call your local Poison Control Center (1-800-222-1222 in the U.S.) or physician |

Most important symptoms, both acute and delayed

None known when used as intended in Rize printer

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media:

Use extinguishing media suitable for Class A fires (ordinary combustibles). Carbon dioxide is generally not recommended for use on Class A fires as a lack of cooling capacity may result in re-ignition.

Laboratory tests for thermal properties were conducted using OECD Guidelines. The results are indicated below:

93/105/EC Annex VIID 3.10 (Flammability (solids)): Not highly flammable

93/105/EC Annex VIID 3.11 (Explosive properties): Not explosive

93/105/EC Annex VIID 3.12 (Relative self-ignition temperature for solids): Does not self-ignite

93/105/EC Annex VIID 3.16 (Thermal stability): Stable at room temperature

Special Hazards arising from the substance or mixture:

Product will burn in a fire.

Advice for firefighters:

As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode (NIOSH approved or equivalent) and full protective gear. Toxic gases may be formed upon combustion and represent a hazard to firefighters. See Section 10 for information on combustion products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

| | |
|---|-------------------------|
| Personal precautions, protective equipment and emergency procedures | No special requirements |
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| Environmental precautions | As with all industrial chemicals, use of good chemical hygiene and environmental stewardship practices is recommended |
| Methods and materials for containment and cleaning up | Place into appropriate containers for reuse, recycle or disposal |

SECTION 7: HANDLING AND STORAGE

| | |
|-------------------------------|---|
| Precautions for safe handling | Handle in accordance with good industrial hygiene and safety practice. At temperature above 400C, product will emit fumes and vapors. If exposure to temperature >400C occurs, use only with adequate ventilation, do not breathe (dust, vapor or fumes) and wash thoroughly after handling. Any post-processing operations involving heat sufficient to result in polymer breakdown emitting smoke and fumes should be conducted in such a manner to avoid inhalation of fumes. Local exhaust ventilation and respiratory protection may be required |
| Conditions for safe storage | Store in a cool, dry area away from direct light to maintain quality |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substance with occupational exposure limit values

Engineering measures

None required when used as intended in Rize printer

Personal protective equipment

Eye/Face/Skin protection: follow facilities guidelines

Respiratory protection: respiratory protection is not required during normal use and handling operations

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|----------------|
| Appearance: Physical State: | Solid |
| Odor: | None |
| Odor Threshold: | Not Applicable |
| Vapor Pressure: | Negligible |
| Vapor Density (Air=1): | Not Applicable |
| pH: | Not Determined |
| Volatiles (minus H ₂ O) w/w%: | <0.0001 |
| Evaporation Rate (water = 1): | Not Applicable |
| Viscosity (B-type viscometer @ 60 rpm): | Not Applicable |
| Octanol/Water Partition Coefficient: | Not Determined |
| Flammability: | See Section 5 |
| Water Solubility: | Insoluble |
| Melting Point/Freezing Point (°F): | Not Determined |
| Relative Density (water = 1): | 1.01 |
| Flash Point: | Not Applicable |
| Initial Boiling Point: | Not Applicable |
| Autoignition Temperature (°F): | Not Determined |
| Lower Explosive (Flammable) Limit: | Not Applicable |
| Upper Explosive (Flammable) Limit: | Not Applicable |
| Decomposition Temperature: | Not Determined |

SECTION 10: STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | Hazardous polymerization will not occur |
| Chemical stability | Stable under normal conditions of use and storage |
| Possibility of hazardous reactions | None known |
| Conditions to avoid | Overheating (> 400C) |
| Incompatible materials | As with all organic materials, avoid contact with strong oxidizers and reducing agents |
| Hazardous decomposition products | Carbon monoxide, carbon dioxide, hydrocarbons |

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SECTION 11: TOXICOLOGICAL INFORMATION

Routes of entry:

Eye contact, skin contact, vapor/dust, inhalation

Symptoms of overexposure:

The product, as supplied, is not expected to cause acute or chronic effects when use as intended in Rize printer. Abnormal use or handling of the product may create vapors or fumes which may cause respiratory tract irritation.

Acute toxicity

| Chemical name | LD50 Oral (Rat) | LD50 Dermal (Rabbit) | LC50 Inhalation |
|-------------------|-------------------|----------------------|-------------------|
| Proprietary resin | No data available | No data available | No data available |

Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

SECTION 12: ECOLOGICAL INFORMATION

No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste resulting from this product as supplied is not known to be classified as a hazardous waste per the current listings and characteristics contained in 40 CFR Part 261, and its Appendices. It is the generator's responsibility to determine, per the regulation, the applicability of the Resource Conservation and Recovery Act (RCRA), as well as all state, local, or other governmental agency waste disposal regulations, to the particular waste materials prior to treatment or disposal

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SECTION 14: TRANSPORT INFORMATION

Domestic regulation

DOT: this product is not defined or designated as a hazardous material by the US Department of Transportation under Title 49 of the Code of Federal Regulations

International regulations

IATA: This product is not classified as a dangerous good for transport

IMDG: This product is not classified as a dangerous good for transport

TDG: This product is not classified as a dangerous good for transport

SECTION 15: REGULATORY INFORMATION

EPA SARA TITLE III CHEMICAL LISTINGS

Section 311/312: None

This product contains the following chemical(s) exceeding the *de minimis* amount subject to reporting under SARA 313: None

US State Right to Know

This product contains chemical(s) exceeding the *de minimis* amount subject to disclosure under the following State Right-to-Know regulations:

| Chemical name | CAS # | Key (see below) |
|-------------------|-------------|-----------------|
| Proprietary resin | proprietary | PA NH |

Key description:

PA NH : Pennsylvania Non Hazardous Substance >3%

California Prop. 65

This product is not known to contain any chemicals currently listed as carcinogens

International regulations

| | |
|-------|----------------------------------|
| TSCA | All ingredients listed or exempt |
| NECSI | All ingredients listed or exempt |
| KECL | All ingredients listed or exempt |
| AICS | All ingredients listed or exempt |
| IECSC | All ingredients listed or exempt |
| PICCS | Not listed |
| DSL | All ingredients listed or exempt |
| ENCS | All ingredients listed or exempt |

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SECTION 16: OTHER INFORMATION

HMIS

| | |
|-----------------|---|
| HEALTH | 0 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

0 = not significant; 1=slight; 2=moderate; 3=high; 4=extreme

* HMIS (Hazardous Materials Identification System) ratings apply to products as packaged

NFPA



* NFPA (National Fire Protection Association) ratings identify hazards during a fire emergency

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Disclaimer

The information provided in this Material Safety Data Sheet is accurate to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Rize Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore.

End of safety data sheet