

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.13.2020

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PLM-001-SURF

SECTION 1: Identification

Product identifier

Product name: PLM-001-SURF

Recommended use of the product and restriction on use

Relevant identified uses: 3D printing post

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

PostProcess Technologies, Inc.

2495 Main Street

Suite 615

Buffalo, NY 14214

1-866-430-5354

Emergency telephone number:

United States

PERS

1-800-633-8253 (US/Canada; 24 hours)

1-801-629-0667 (International; 24 hours)

Customer#: 11416

SECTION 2: Hazard(s) identification

GHS classification:

Eye irritation, category 2A

Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H319 Causes serious eye irritation

Precautionary statements:

P264 Wash thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face protection

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337+P313 If eye irritation persists: Get medical advice/attention

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Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|---------------------------|---|----------|
| CAS number: 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | 1-5 |
| CAS number: 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | 0.001 |
| CAS number: 2682-20-4 | Methyl-4-isothiazolin-3-one | 0.0001-1 |

Additional Information:

The specific chemical identity and/or exact percentages (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200)

SECTION 4: First aid measures

Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

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Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water mist/fog. Carbon dioxide, dry chemical or alcohol resistant foam.

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable extinguishing media:

Do not use water jet as an extinguisher, as this will spread the fire.

Do not use water jet.

Specific hazards during fire-fighting:

Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions. It can explode or detonate under fire conditions. Burning material may produce toxic vapors.

Thermal decomposition may produce irritating/toxic fumes/gases.

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA with a full-face piece operated in positive pressure mode).

Special precautions:

Avoid inhaling gases, fumes, mist, dust, vapor or aerosols. Avoid contact with eyes, skin, hair or clothing.

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts.

Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers.

Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing. Avoid breathing dust, mist, vapor, fume, and spray.

Do not walk through spilled material. Wash thoroughly after handling.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Reference to other sections:

For disposal see section 13.

For personal protective equipment see section 8.

SECTION 7: Handling and storage

Precautions for safe handling:

Wear recommended personal protective equipment (see Section 8). Only use with adequate ventilation. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing mist/vapor/ spray. Do not

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eat, drink, or smoke while handling this product. Wash hands, forearms and face after handling. Keep away from incompatible materials (see Section 10). Keep containers tightly closed when not in use.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protection equipment

Eye and face protection:

Safety goggles

Skin and body protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory protection. Respirator selection must be based on known or anticipated exposure level, the hazards of the product and the safe working limits of the selected respirator. Wear a properly fitted, air-purifying or air-fed respirator if exposure limits exceeded or irritation or other symptoms are experienced. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

General hygienic measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|----------------|-------------------------|
| Appearance | Clear colorless liquid. |
| Odor | Odorless. |
| Odor threshold | No data available |
| pH | 10.4-11.4 |

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| | |
|---|-------------------|
| Melting point/freezing point | ~32°F |
| Initial boiling point/range | ~212°F |
| Flash point (closed cup) | >212°F |
| Evaporation rate | No data available |
| Flammability (solid, gas) | Not flammable |
| Upper flammability/explosive limit | No data available |
| Lower flammability/explosive limit | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Density | No data available |
| Relative density | No data available |
| Solubilities | No data available |
| Partition coefficient (n-octanol/water) | No data available |
| Auto/Self-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Dynamic viscosity | No data available |
| Kinematic viscosity | No data available |
| Explosive properties | Not explosive |
| Oxidizing properties | None known |

Other information

SECTION 10: Stability and reactivity

Reactivity:

Not reactive under recommended storage and handling conditions.

Chemical stability:

Stable under recommended storage and handling conditions.

Possibility of hazardous reactions:

No dangerous reaction known under conditions of normal use. [Based on individual product]

Conditions to avoid:

Avoid heat, sparks, open flames and other ignition sources. Keep away from incompatibles.

Incompatible materials:

Strong oxidizing agents.

Hazardous decomposition products:

Carbon oxides

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Route | Result |
|------|-------|--------|
|------|-------|--------|

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| Name | Route | Result |
|-----------------------------|------------|------------------------------|
| Methyl-4-isothiazolin-3-one | oral | LD50 Rat: 120 mg/kg |
| | inhalation | LC50 Rat: 0.1 mg/L (4 hours) |
| | dermal | LD50 Rat: 242 mg/kg |

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

| Name | Result |
|--|--|
| 5-Chloro-2-methyl-4-isothiazolin-3-one | Corrosive to the skin. |
| Methyl-4-isothiazolin-3-one | Causes severe skin burns and eye damage. |

Serious eye damage/irritation

Assessment:

Causes serious eye irritation.

Product data:

No data available.

Substance data:

| Name | Result |
|---|----------------------------|
| Alcohols, C9-11, branched and linear, ethoxylated | Causes serious eye damage. |
| 5-Chloro-2-methyl-4-isothiazolin-3-one | Causes serious eye damage. |

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

| Name | Result |
|--|--------------------------------------|
| 5-Chloro-2-methyl-4-isothiazolin-3-one | May cause an allergic skin reaction. |
| | May cause respiratory irritation. |
| Methyl-4-isothiazolin-3-one | May cause an allergic skin reaction. |

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

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Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

Inhalation, Ingestion, Skin contact, Eye contact.

Symptoms related to the physical, chemical and toxicological characteristics:

Refer to Section 4 of this SDS.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Result |
|--|--|
| 5-Chloro-2-methyl-4-isothiazolin-3-one | LC50 Lepomis macrochirus: 0.3 mg/L (96 hr) |
| | EC50 Daphnia magna: 0.18 mg/L (48 hr) |
| Methyl-4-isothiazolin-3-one | LC50 Oncorhynchus mykiss (rainbow trout): 0.07 mg/L (96.0 h) |
| | EC50 Daphnia magna (Water flea): 0.18 mg/L (48 h) |

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data:

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| Name | Result |
|---|--|
| Alcohols, C9-11, branched and linear, ethoxylated | Based on the data above, alcohol ethoxylate (C9-11, < 2.5 EO) is considered rapidly biodegradable. |
| Methyl-4-isothiazolin-3-one | Not readily biodegradable. |

Bioaccumulative potential

Product data: No data available.

Substance data:

| Name | Result |
|---|---|
| Alcohols, C9-11, branched and linear, ethoxylated | Based on the data above, alcohol ethoxylate (C9-11, < 2.5 EO) is considered to have low potential for accumulation. |
| Methyl-4-isothiazolin-3-one | Bioaccumulation in aquatic species: Bluegill. |

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

| | |
|-------------------------------|---------------|
| UN number | Not regulated |
| UN proper shipping name | Not regulated |
| UN transport hazard class(es) | None |
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

International Maritime Dangerous Goods (IMDG)

| | |
|-------------------------------|---------------|
| UN number | Not regulated |
| UN proper shipping name | Not regulated |
| UN transport hazard class(es) | None |
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

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International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

| | |
|-------------------------------|---------------|
| UN number | Not regulated |
| UN proper shipping name | Not regulated |
| UN transport hazard class(es) | None |
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

| | | |
|------------|---|--------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Listed |

Significant New Use Rule (TSCA Section 5):

| | | |
|------------|--|--------|
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Listed |
|------------|--|--------|

Export notification under TSCA Section 12(b):

| | | |
|------------|--|--------|
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Listed |

SARA Section 302 extremely hazardous substances: None of the ingredients are listed.

SARA Section 313 toxic chemicals:

| | | |
|------------|---|------------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Not Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Not Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Not Listed |

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

| | | |
|------------|---|------------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Not Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Not Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Not Listed |

New Jersey Right to Know:

| | | |
|------------|---|------------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Not Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Not Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Not Listed |

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New York Right to Know:

| | | |
|------------|---|------------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Not Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Not Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Not Listed |

Pennsylvania Right to Know:

| | | |
|------------|---|------------|
| 68439-46-3 | Alcohols, C9-11, branched and linear, ethoxylated | Not Listed |
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | Not Listed |
| 2682-20-4 | Methyl-4-isothiazolin-3-one | Not Listed |

California Proposition 65:

⚠️WARNING: This product can expose you to Diethanolamine; which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

⚠️WARNING: This product can expose you to Ethylene oxide; which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 1-0-0

HMIS: 1-0-0

Initial preparation date: 02.13.2020

Revision Notes:

| Revision Date | Notes |
|---------------|----------------|
| 2020-02-13 | SDS No. 200073 |
| 2020-02-13 | Revision D |

End of Safety Data Sheet